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Unleashing the Potential of the Indian Knowledge
System in the Modern Intellectual Landscape"**

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Editors:

Dr. Gaurav Aggarwal

Dr. Ravinder Kumar

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A Comparative Study on Assessing Nutritional Knowledge and Health Complications Among 45 To 50 Aged Women in Rural and Urban Areas of Faridabad District

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ABSTRACT

The study titled “A Comparative Study on Assessing Nutritional Knowledge and Health Complications among 45–50 Aged Women in Rural and Urban Areas” was conducted on 120 women, including 60 from rural Uttar Pradesh and 60 from urban Haryana. The objective was to compare the nutritional knowledge, dietary intake, anthropometric status, and health complications of women in this age group. Data were collected using socio-demographic information, anthropometric measurements (height, weight, BMI, waist and hip circumference), 24-hour dietary recall, food frequency survey, clinical examination, and assessment of health complications. Nutrition education was also provided through a Hindi pamphlet. The findings showed that urban women were more educated and had higher family income, while rural women were more engaged in household and agricultural work. Anthropometric results indicated that urban women had higher BMI and waist-hip measurements, showing greater risk of obesity and lifestyle-related diseases, whereas some rural women were undernourished. Dietary intake of energy, protein, fat, and iron was below recommended levels in both groups, with low consumption of milk, fruits, and vegetables. Rural women showed more visible signs of nutritional deficiencies, while urban women had higher rates of diabetes, hypertension, obesity, and sleep issues. Nutritional knowledge was better among urban women, but awareness regarding calcium, vitamin D, and iron was lacking in both groups. The study concluded that women aged 45–50 in both rural and urban areas are nutritionally vulnerable. Rural women are more affected by deficiencies, while urban women are more affected by lifestyle diseases. Nutrition education, balanced diets, physical activity, and family support are essential for improving their overall health and quality of life.

Keywords: Rural women, Urban women, Nutrition knowledge, Health complications, Dietary assessment, Anthropometry.

A Study of Home Environment and Self Concept in Relation to Family Structure of School Going Children

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ABSTRACT

This study explores the relationship between home environment and self-concept among adolescents in relation to their family structure. Using a descriptive survey method, a sample of 200 school-going adolescents aged 13–16 years was purposively selected from public schools across districts in Haryana. The sample included 100 students from nuclear families and 100 from joint families, with equal gender distribution. Standardized tools—Home Environment Inventory and Self-Concept Scale—were administered, and data were analyzed using Mean, Standard Deviation, and t-test. The results revealed significant differences in various dimensions of home environment and self-concept between adolescents from joint and nuclear families. Particularly, joint families showed higher scores on nurturance, protectiveness, and overall self-concept. The study underscores the critical influence of family structure and home dynamics on adolescent development.

Keywords: Adolescents, Educational Psychology, Family Structure, Home Environment, Self-Concept

“A Survey Based Study on The Health and Nutritional Status of Vegetarian and Non-Vegetarian Individuals in The Urban Population of Jaipur, Rajasthan Aged 18 To 30 Years”

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ABSTRACT

The present research, titled “A Survey-Based Study on the Health and Nutritional Awareness of Vegetarian and Non-Vegetarian Populations in Jaipur”, aimed to assess and compare dietary habits, health status, and nutrition awareness among urban adults. A study was conducted on 150 educated respondents aged 18 to 30 years, equally divided between vegetarians and non-vegetarians. Data were collected using a structured questionnaire distributed through direct surveys. Data were analyzed using descriptive statistical methods such as frequency, percentage, mean, and standard deviation. The analysis focused on lifestyle practices, dietary patterns, general health indicators, and awareness regarding balanced diets, macronutrients, and micronutrients. Key results highlighted significant differences between the two dietary groups. Vegetarians reported healthier digestive comfort (62%) and greater stability in energy levels (68%) compared to non-vegetarians, of whom 38% experienced frequent gastric discomfort and 59% reported fatigue. Sleep adequacy was better among vegetarians (61%) than non-vegetarians (42%), while hydration practices were also superior, with 64% of vegetarians consuming sufficient water daily. Nutritional awareness was higher among vegetarians, with 85% recognizing the link between diet and health, 84% identifying fiber sources, and 59% demonstrating awareness of iron, compared to much lower levels among non-vegetarians. Social and peer influence was more prominent in shaping non-vegetarian food choices, while vegetarians showed greater autonomy and food safety practices. The study concludes that vegetarian populations exhibited better health outcomes and higher nutrition awareness compared to non-vegetarians. Limitations include its cross-sectional design, self-reported data, and a relatively small sample size confined to urban Jaipur. Future research may expand the study to rural populations, include biochemical assessments, and explore the long-term health effects of dietary patterns in diverse cultural contexts.

Keywords: - Health and nutritional awareness, Vegetarian population, Non-vegetarian population, Dietary habits, Urban adults, General health indicators.

Role of Yoga and Meditation in Maintaining Holistic Health

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ABSTRACT:

Yoga and meditation is a proud part of our Indian culture. At one side yoga improves flexibility, strength and balance via physical posture and overall, wellbeing, on the other side meditation emphasis on mindfulness and self-reflection. This paper explores the multidimensional role of meditation and yoga in promoting holistic health, by drawing insights from traditional wisdom. The roots of yoga and meditation can be traced back to the Vedic sages, as well as traditions in Buddhism and Jainism. In Indian culture, yoga and meditation are viewed as mediums for attaining enlightenment and transcending the constraints of the ego. Numerous studies indicate that regular meditation and yoga reduce stress, improve cardiovascular and immune functions, and promote positive psychological states. By integrating meditation and yoga into daily routine, individuals can attain comprehensive health benefits that address physical ailments, mental fatigue and emotional disturbances. This paper concludes that yoga and meditation have a positive impact on holistic wellbeing.

Keywords: Holistic Health, Indian Knowledge System, Yogic practices, Meditation, Mental Health

Roasted Bengal Gram-Garden Cress Laddoo as a Traditional Therapeutic Nutritional Intervention for Iron Deficient Adolescent Girls

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ABSTRACT

Indian culinary traditions have long emphasized *Atithi bhava* (As the food, so the mind), underscoring the link between diet and health. This wisdom remains relevant today, as food choices play a key role in preventing deficiencies and maintaining well-being. Iron deficiency continues to be a major global concern, particularly among adolescent girls, affecting their overall health, cognitive abilities, and academic performance. According to the National Family Health Survey-5, the prevalence of iron deficiency anaemia in adolescent girls (15–19 years) is 59.1%, with 56.5% in urban areas and 60.2% in rural populations. Garden cress (*Lepidium sativum*), known as halim in Ayurveda, has long been recommended for improving haemoglobin and vitality, while roasted Bengal gram (*Cicer arietinum*) provides plant-based protein and bioavailable iron. This study highlights the development and evaluation of a nutritionally potent laddoo combining these ingredients. The objective of the study was to prepare and standardize roasted Bengal gram–garden cress laddoo and evaluate its acceptability among adolescents as nutritional intervention for iron deficiency. The laddoo was prepared using roasted Bengal gram flour, garden cress and musk melon seeds, coconut, nutmeg, almond powder, jaggery, and ghee. Standardization was achieved through multiple trials to balance taste, texture, and nutrient density. Organoleptic evaluation was conducted with adolescent girls using a 9-point hedonic scale, supported by expert panel assessment. The product demonstrated high acceptability for colour, appearance, aroma, texture, and taste. Half of the participants (n=10) rated it “liked extremely” (score 9), while the remaining half rated it “liked very much” (score 8). Its nutrient profile suggests potential as a sustainable dietary supplement for adolescents, particularly in addressing iron deficiency and enhancing energy levels. The roasted Bengal gram–garden cress laddoo illustrates how traditional culinary wisdom can be adapted into modern functional food solutions, offering culturally relevant strategies to combat adolescent health challenges.

Keywords: Garden Cress, Bengal Gram, Iron Deficiency, Adolescent Girls, Organoleptic Evaluation, Hedonic Scale

Ancient Indian Agronomy: A Framework for Modern Ecological Resilience

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ABSTRACT

Ancient Indian agronomy embodies a profound ecological wisdom that offers valuable insights for addressing contemporary challenges in sustainable agriculture. Modern farming increasingly faces critical issues such as soil degradation, biodiversity loss, and climate change impacts, often exacerbated by synthetic inputs and monocultural practices. This research aims to explore traditional Indian agricultural knowledge systems, particularly those codified in classical texts like the Vrikshayurveda, as well as living practices among farming communities. The primary objectives are to (1) analyze ancestral farming techniques emphasizing ecological stewardship, (2) evaluate their potential for building modern agricultural resilience, and (3) demonstrate the integration of these practices within contemporary sustainable food security frameworks. Despite the richness of ancient Indian agronomic knowledge, a significant research gap exists in its systematic validation through modern scientific paradigms, resulting in marginalization in mainstream agricultural discourse. This study adopts a multi-disciplinary approach combining textual analysis of Sanskrit treatises with ethnographic fieldwork among traditional practitioners. By examining core principles such as panchagavya (organic bioformulations) and synergistic cropping through the lens of agroecology, this research seeks to bridge epistemological divides and articulate a robust, low-input model for sustainable farming. The findings aim to reinforce the relevance of Indian traditional ecological knowledge in fostering resilient, environmentally sustainable agricultural systems capable of addressing global food security and ecological challenges.

Keywords: Indian Knowledge Systems (IKS), Sustainable Agriculture, Traditional Ecological Knowledge (TEK), Agroecology, Vrikshayurveda.

Reimagining Holistic Education Through Indian Epistemologies: Towards Ecological and Social Literacy

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ABSTRACT

Indian Knowledge System (IKS) embodies an integrated vision of learning where intellect, emotions, ethics and ecology form a unified whole. However, contemporary education often focuses on cognitive and instrumental outcomes, neglecting the interdependence of human consciousness and the environment. Drawing upon ancient wisdom and Indian epistemologies, this paper re-envisioning holistic education as transformative process that nurtures the whole being and fosters sustainable existence. Drawing on the Holistic Learning Theory (Johnson 2023) which highlights the interdependence of the individual society and environment, the paper makes the case that education needs to be seen as a transformative process to foster social, emotional and ecological literacy. In order to challenge instrumental and skill-based pedagogies the investigation expands upon New Literacy Studies and the epistemological turn in education (Lofgren 2023) which emphasize meaning-making reflection and cultural context as critical components of human development. This study proposes an integrative literacy model by combining knowledge from holistic educational paradigms and epistemological belief research (Green and Hood 2013) using a qualitative interpretive framework. With an emphasis on relational knowing and self-realization as the cornerstones of learning, this model draws from IKS principles like advaita (non-duality), sahaj samadhi (natural awareness) and ahimsa (non-destruct). As a result holistic education is re-thought to include ecological consciousness, empathy and ethical responsibility as key learning objectives going beyond knowledge. The integration of IKS with holistic learning theories appears to allow education to move beyond mechanistic frameworks and foster sustainability-aligned whole-person development. Based on awareness community and compassion the study concludes that adopting indigenous epistemologies provides a route to worldwide educational renewal.

Keywords: Indian Knowledge System, Holistic Learning Theory, Epistemology of Learning, Ecological Consciousness, Social Literacy, Emotional Literacy

Metallurgical Heritage of Ancient India: A Study of Iron Pillar, Zinc Smelting in Rajasthan, and Traditional Alloy Systems From A Materials Science Perspective

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ABSTRACT

The sol-gel synthesis through the alcoholic routes is a well-known method for the synthesis of ZnO nanocrystals. The same method is used here to synthesize ZnO quantum dot at room temperature with few modifications. In contrast to other reports, ZnO nanocrystals have been synthesized at room temperature with different molar ratio of reactants. The structural characterization of as synthesized samples was performed by X-ray diffraction (XRD), Transmission Electron Microscopy (TEM) and Fourier Transform Infrared Spectroscopy (FTIR). The results show the formation of ZnO nanocrystals in the size range 8-10 nm, well within the quantum confinement regime. The shifting of absorption edge in UV-visible spectra of also confirms formation of ZnO quantum dots. The photoluminescence spectra of ZnO quantum dots shows complete quenching of excitonic emission and enhanced defect related green emission.

Keywords: ZnO quantum dots, Quantum confinement, Sol-gel synthesis.

Integrating Indian Knowledge Systems For Early Diagnosis of Tuberculosis: A Holistic Framework For Infectious Disease Management

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ABSTRACT:

The Indian Knowledge System (IKS), encompassing Ayurveda, Siddha, Unani, and Yoga, represents a profound and time-tested framework for understanding health and disease. Despite rapid advances in molecular diagnostics, imaging, and laboratory technology, tuberculosis (TB) continues to be a major public health challenge, particularly in resource-limited settings. This underscores the need for affordable, community-driven, and culturally grounded diagnostic strategies. IKS offers a holistic health perspective that emphasizes the equilibrium between the body, mind, and environment rather than focusing solely on disease pathology. Classical diagnostic tools such as Nadi Pariksha (pulse examination), Jihva Pariksha (tongue observation), Mutra Pariksha (urine evaluation), and Netra Pariksha (eye examination) were historically used to identify physiological imbalances long before clinical symptoms manifested. These methods may provide valuable insights for developing early TB detection frameworks that align with local health beliefs and practices.

Furthermore, the Ayurvedic concept of Janapadodhwamsa—which interprets epidemic spread in relation to environmental and social disturbances—mirrors modern epidemiological theories, offering opportunities to enhance community-based surveillance. Integrating traditional herbal pharmacology and bio-indicators from IKS with contemporary tools such as molecular assays, biosensors, and digital health platforms can yield hybrid diagnostic models that are both accessible and scalable. Such an integrative approach encourages public trust, enhances early disease recognition, and supports India's One Health vision by linking human, animal, and environmental health perspectives.

Bridging ancient wisdom with modern biomedical science not only safeguards India's medical heritage but also fosters innovation in infectious disease diagnostics. By leveraging IKS principles alongside advanced technology, early detection and prevention of tuberculosis can become more holistic, inclusive, and sustainable, particularly for underserved populations.

Keywords: Indian Knowledge System (IKS), Tuberculosis, Ayurvedic diagnostics, Janapadodhwamsa, Integrative medicine, One Health, Infectious disease management

Rhythms, Frequencies, and Human Physiology: Exploring The Laboratory Effects of Indian Classical Music - Lab-Based Measurement of Cortisol, Adrenaline, Or Melatonin Levels in Response To Specific Ragas Or Rhythms.

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ABSTRACT

Indian classical music, with its rich ragas and rhythmic patterns, has long been associated with emotional and physiological modulation. Scientific studies now support these traditional beliefs by examining biochemical markers such as cortisol, adrenaline, and melatonin. Research indicates that listening to Indian classical instrumental music can lower salivary cortisol levels, reflecting stress reduction. Specific ragas, including Raag Darbari Kanada, have shown therapeutic potential in clinical settings by reducing cortisol in post-operative patients, while Raag Bhairavi, when listened to for 15 minutes daily over six days, has been found to significantly lower stress indicators. These outcomes align with the broader understanding that music influences the autonomic nervous system and endocrine balance. Preliminary evidence suggests that individual ragas exert distinct effects—Raag Bhairavi promoting relaxation and Raag Darbari Kanada helping ease anxiety and insomnia, especially in older adults. Such findings highlight the clinical potential of Indian classical music in modulating hormone levels and promoting emotional equilibrium. In older individuals, music therapy featuring Indian ragas may serve as a natural stress-management technique. The meditative nature of ragas offers a culturally rooted means of enhancing mental calm and overall quality of life. Moreover, ragas like Yaman and Todi have been linked to improved cognitive function and memory recall, offering support for seniors experiencing cognitive decline. The melodic patterns and soothing rhythm of Bhairavi and Ahir Bhairav provide emotional stability and relaxation. Incorporating ragas into daily routines—either through active listening or passive exposure—can yield tangible psychophysiological benefits. As evidence grows, integrating Indian classical music into therapeutic and self-care practices may foster holistic well-being, enabling seniors to experience harmony of body, mind, and spirit while promoting healthy aging.

Keywords: Indian classical music, ragas, cortisol, stress reduction, Cognitive enhancement.

Comparative Perspectives on Ayurvedic Dietetics and Modern Nutrition in The Prevention of Obesity- A Review

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ABSTRACT

The global rise of obesity represents a critical public health crisis, requiring the rigorous examination of effective and sustainable dietary strategies for prevention. This review comparatively analyses the core principles of Ayurvedic dietetics (Ahara Vijnana) and conventional modern nutritional science regarding their application in managing and preventing obesity (Sthoulya). Modern nutrition predominantly employs a reductionist model, focusing on quantitative metrics such as caloric restriction, optimal macronutrient ratios, and generalized food guidelines. Conversely, Ayurvedic dietetics adopts a personalized, holistic framework, emphasizing the pivotal role of individual psycho-physiological constitution (Prakriti), the integrity of the digestive fire (Agni), the balancing of the six tastes (Rasa), and appropriate meal timing (Kala) to maintain metabolic equilibrium. By systematically reviewing the foundational philosophies and emerging evidence of both systems, this paper identifies significant areas of contrast and potential convergence. Ultimately, the review suggests that an integrated, dual-perspective approach—one that combines the detailed metabolic insights of modern science with the personalized, root-cause identification provided by Ayurvedic principles—could yield more comprehensive, patient-centric, and effective strategies for long-term obesity prevention and metabolic health management.

Keywords: Obesity, Ayurveda, Modern Nutrition, Dietetics, Prakriti, Agni, Sthoulya

“Indian Knowledge Systems As Catalysts For Ecological Balance and Global Well-Being”

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ABSTRACT

Indian Knowledge Systems (IKS) encompass a rich and holistic body of traditional wisdom that integrates ecological management, sustainable resource utilization, and spiritual ethics. This paper explores how IKS fosters ecological balance through key domains such as traditional water conservation techniques, biodiversity preservation, sustainable agricultural practices, and community-driven governance models. Emphasizing the concept of humans as custodians rather than exploiters of nature, IKS promotes harmony between society and the environment. The study highlights case examples like the revival of johads in Rajasthan, which significantly improved groundwater levels and restored ecosystems, as well as the conservation of sacred groves in the Western Ghats, which safeguard biodiversity hotspots. In addition to preserving ecological integrity, IKS aligns closely with the objectives of the United Nations Sustainable Development Goals (SDGs), particularly addressing water security, climate action, sustainable agriculture, and life on land. By integrating IKS principles into contemporary environmental policies, education frameworks, and global sustainability discourses, societies can achieve development that is not only ecologically sound but also socially equitable and culturally rooted.

Keywords: Ecological balance, biodiversity preservation, sustainable agriculture, community governance, traditional wisdom, environmental policy

From Stem To Stream: Integrating Aesthetics Through Indian Knowledge Systems in Contemporary Education

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ABSTRACT

Education in the STEM fields—Science, Technology, Engineering, and Mathematics—has grown in prominence in the 21st century as a means to propel technological advancement and monetary prosperity. Even though this approach has made people better at solving problems, thinking analytically, and using technology, it often ignores the creative, moral, and emotional parts of learning that are important for developing a well-rounded person. In response to this imbalance, there has been a shift in educational priorities away from STEM (Science, Technology, Engineering, and Mathematics) and toward STEAM (Science, Technology, Reading/Arts, Engineering, and Mathematics), which places an emphasis on the value of aesthetics, communication, and creativity alongside scientific inquiry. IKS, a vast variety of indigenous methods of knowing, doing, and thinking—view knowledge as an integrated, worthwhile pursuit—and this transition has significant implications for them. Science and art, logic and intuition, practicality and aesthetics all work together in perfect harmony, according to IKS, making learning an organic process. The way modern fields are divided is different from this. Traditional practices in Architecture (Vāstu Śāstra), Mathematics, music (Nāṭya Śāstra), and medicine (Āyurveda) showcase an impressive combination of artistic sensibility and scientific accuracy. By reintroducing the creative and cultural dimensions of knowledge, this study argues that IKS can transform STEM into STREAM. Sustainable learning in the modern world requires scientific literacy, aesthetic appreciation, ethical awareness, and ecological concern, all of which can be enhanced by integrating IKS concepts into existing educational practices. The idea of a value-based, interdisciplinary education that promotes creativity, critical thinking, and cultural belonging is akin to this, as is NEP 2020. This paper critically reviews the existing literature on the incorporation of IKS into the transition from STEM to STREAM education, with a particular emphasis on the aesthetic and pedagogical aspects of this shift.

Keywords: Indian Knowledge System, STEM, STREAM, NEP2020.

Nature Cure as a Sustainable Model for Holistic Well-Being and Treatment of Lifestyle Diseases

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ABSTRACT

In an age marked by rising lifestyle diseases, mental health disorders, and ecological crises, there is an urgent need to revisit India's indigenous health wisdom that emphasizes prevention, harmony, and sustainability. Nature Cure, a vital component of India's traditional knowledge systems, rests on the belief that the human body possesses innate self-healing power. It harnesses the therapeutic potential of the Panchbhootas; aligning bodily rhythms with natural cycles. Unlike the interventionist biomedical paradigm, Nature Cure adopts a non-invasive, eco-centric, and minimalist approach that treats the root causes rather than symptoms of disease. Rooted in Vedic philosophy, Nature Cure advocates a lifestyle of self-discipline, and ecological consciousness. Through therapies such as mud applications, hydrotherapy, sun therapy, pranayama, and plant-based nutrition. These practices not only restore physiological balance but also nurture mental and spiritual well-being. This paper argues that Nature Cure offers a sustainable and cost-effective healthcare framework with global relevance. It offers a paradigm shift from curative medicine to preventive, nature-aligned living. By integrating traditional insights with contemporary wellness research, the study highlights Nature Cure as both an ancient ecological wisdom and a modern path toward holistic well-being.

Keywords: Nature Cure, Panchbhootas, Lifestyle Diseases, Preventive Healthcare

Review Paper on Nature in Harmony: Traditional Knowledge For Sustainable Living

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ABSTRACT

Nature in harmony means living in balance, where all living organism including plants, animals, and their environment support and depend on another without interrupting each other. This review paper primarily focuses on sustainable living through traditional practices and also explores how people or communities rely on traditional knowledge or indigenous techniques before modern technology. These techniques are eco-friendly in nature i.e., harmless in nature. Water conservation system, agricultural and food security, festival, ecological, and the agrarian calendar, role of women and community in environmental stewardship, using indigenous techniques and knowledge will be discussed. Furthermore, examines why people are no longer practicing it and highlight the importance of preserving and practicing them instead of modern techniques.

From Zero To Infinity: Ancient India's Knowledge Systems and Their Modern Relevance

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ABSTRACT

India's scientific heritage is a remarkable blend of curiosity, imagination, and discovery. From the invention of zero in mathematics to detailed studies of astronomy, from the production of rust-free iron to the precise structure of Sanskrit grammar, Indian scholars and philosophers developed knowledge that transformed human understanding of the world. These contributions were not isolated achievements but part of a holistic worldview that connected science, philosophy, and everyday life. Rediscovering this heritage allows us to appreciate both the depth of traditional wisdom and its relevance in addressing modern challenges. The purpose of this paper is to explore the profound scientific and traditional contributions of ancient Indian thinkers and to highlight their continuing significance. Rediscovery is not merely about celebrating the past with pride; it is also about recognizing how the Indian Knowledge System (IKS) can actively guide present and future scientific inquiry. Ancient insights into mathematics, astronomy, metallurgy, medicine, and linguistics continue to inspire modern innovation when examined through an interdisciplinary lens. For example, Sanskrit's logical and computational structure offers possibilities in artificial intelligence and machine learning, while Ayurvedic principles contribute to holistic approaches in healthcare. The central aim of this study is to emphasize that heritage and modern science should not be seen as separate or opposing domains. Instead, they should be understood as complementary forces. Integrating traditional wisdom with contemporary scientific methods fosters creativity, innovation, and critical thinking. It also promotes a more sustainable and balanced approach to development—one that values both human ingenuity and ecological harmony. By valuing tradition alongside innovation, we can build a future that is thoughtful, inclusive, and deeply rooted in centuries of accumulated knowledge. Rediscovering India's scientific heritage is, therefore, not only a matter of cultural pride but also a pathway to shaping a more meaningful and sustainable world.

Keywords: Indian Knowledge System (IKS), Interdisciplinary, Scientific Heritage, Traditional Wisdom, Sustainable World.

Traditional Knowledge For Sustainable Living: Indigenous Practices in Water, Agriculture, and Ecology

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ABSTRACT

Centuries-old traditional knowledge developed by local communities is an essential part of sustainable living. It encompasses practices, beliefs, and techniques to conserve natural resources, maintain ecological equilibrium, and provide food security. This paper discusses four important areas of traditional knowledge: traditional systems of water conservation, indigenous farming practices, ecology-based festivals, and the contribution of women and communities towards environmental conservation. Heritage water management systems like stepwells, johads, tanks, and ponds present viable solutions for the management of limited water resources, the recharging of groundwaters, and agriculture. Traditional farming methods like the rotation of crops, mixed cropping, seed conservation, and organic farming improve soil fertility, biodiversity, and long-term food security. Festivals based on the agricultural calendar instill ecological awareness, which inculcates the community to follow the seasonal cycles, harvest patterns, and sustainable utilization of resources. In addition, community groups and women hold the core responsibility for natural resource management, biodiversity conservation, and the sustainability of local ecosystems. Through examples from different regions of India, this paper brings forth the pragmatic importance of such traditional practices in tackling contemporary environmental issues. The research proves that blending traditional knowledge with contemporary technology can offer eco-friendly solutions while conserving cultural heritage. In conclusion, this study underlines the significance of acknowledging, recording, and showcasing traditional practices as a means to attain ecological balance and sustainable living for generations to come.

Keywords: Traditional Knowledge, Sustainable Development, Indigenous Farming, Water Conservation, Environmental Awareness

Geometric Proof of Sankalana Vyavakalanabhyam (Addition and Subtraction) For Solving Quadratic Equations.

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ABSTRACT:

The present document discusses a complete geometric analysis of Sankalana Vyavakalanabhyam (संकलन व्यवकलनाभ्याम), the seventh sutra of Vedic Mathematics. Sankalana means “by addition” and vyavakalanabhyam means “by subtraction”. Traditionally, Sankalana Vyavakalanabhyam offers a cleaner approach to dealing with simultaneous linear equations with interchanged coefficients, however we will first consider its geometric basis and then will explore it systematically with visual proof methods towards extension to a possible quadratic equation application. The study offers a comprehensive geometric backdrop to better understand underlying ideas of the sutra, which is a method of representing algebraic quantities in terms of areas and lengths, along with spatial relationships. This study develops explicit geometric constructions that display the addition and subtraction of values which is the core of the sutra, and which arises quite naturally from the manipulation of rectangular and square regions in the Cartesian plane. The study moves from more accessible proofs for linear systems to much more nuanced applications of difference of squares, completing the square, and general quadratic forms. By means of worked examples and comparative analysis, we demonstrate that the Vedic geometric method provides computational efficiency, improved intuitive understanding, and reduced cognitive load for problem situations with symmetric structure. The method also shows deep connections between Indian ancient mathematical practice, and contemporary algebraic geometry, so that the ancient methods can contribute towards modern mathematical education when properly formalized. We describe some of the pedagogical implications for including geometric Vedic methods into mathematics teaching, including implementation issues, assessment considerations, and potential value for different learners.

We then describe more contemporary mathematical applications of these methods in computational mathematics, including algorithm design, hardware implementation, and digital signal processing. We identify some limitations to the approach and identify some future research opportunities, including extending the method into higher degree polynomials, applications in matrix algebra and connections to physics and engineering problems. This work contributes to the body of research that connects historic mathematical approaches to modern mathematical rigor, noting that ancient methods can also add value and alternative approaches to professional work on mathematics.

Keywords: Sankalana Vyavakalanabhyam, sutra, geometric constructions, contemporary algebraic geometry, ancient mathematical practice, pedagogical implications.

Hakim Ajmal Khan's Legacy in The Indian Knowledge System: Modern Synthesis of Unani and Ayurvedic Medicine.

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ABSTRACT

Hakim Ajmal Khan Renowned as masihul Mulk who involved in India's freedom struggle to draw India into development country, tirelessly toiled hard work to integrated Unani medicine with ayurvedic in modern scientific approaches, Ajmal advanced a vision of medical synthesis that articulated to harmonize drivers epistemologies without diminishing their authenticity, The establishment of the ayurvedic and Unani tibba college and involvement with Muslim league and the Indian National Congress as well as in Khalifat movement stand to prove his diverse contribution to indian knowledge system. His contribution is significant not only for expanding the practice of Unani medicine, but also for forging a unique synthesis of Unani, Ayurvedic, and current scientific knowledge within the framework of the Indian Knowledge System. There is still a dearth of research on Ajmal Khan's position as a reformer who codified indigenous medicinal traditions and reinterpreted them in conversation with modernity, despite the fact that most of the literature has praised his political leadership and medical practice.

This study aims to fill that vacuum by rigorously analyzing his integrated perspective and its consequences for the continuation and revitalization of traditional sciences. This paper applies a methodological framework that consists of a textual and historical examination of primary and secondary materials, spanning from colonial and nationalist discourses on medicine to Ajmal Khan's writings, speeches, and institutional activities. Using this method, the study highlights how Ajmal Khan promoted epistemic plurality as a means of contesting colonial marginalization and as a positive example for cultural self-expression. An example of his approach to integrating Unani and Ayurvedic traditions into a contemporary educational framework is the founding of the Ayurvedic and Unani Tibbia College in Delhi. According to the findings, the legacy of Ajmal Khan is best understood as a deliberate balancing act between tradition and modernity, in which indigenous medical systems were actively refashioned as part of a national mission rather than just maintained. By establishing a place for Unani and Ayurveda in the scientific and medical discourse, he reaffirmed the intellectual sovereignty of Indian knowledge traditions and contested colonial epistemic hierarchies. Conclusively, the legacy of Hakim Ajmal Khan highlights the versatility of indigenous sciences and their capacity for persistence, synthesis, and rejuvenation. Discussions on cultural identity, medical diversity, and the place of traditional knowledge systems in an increasingly globalized society still heavily rely on his contributions.

Keywords: Hakim Ajmal Khan, Indian Knowledge System, Unani Medicine, Ayurvedic Tradition, Medical Pluralism.

Assessment of Nutritional Status and Association of Lifestyle Practices of 6-12 Years School Going Children With Their Parents

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ABSTRACT

Childhood is a crucial stage of growth and development where adequate nutrition, balanced dietary practices, and healthy lifestyle behaviours are essential for ensuring proper physical, cognitive, and social development. In India, the coexistence of undernutrition with rising overweight and obesity among school-aged children has emerged as a major public health concern, often referred to as the “double burden of malnutrition.” Parents, as primary caregivers and role models, strongly influence the food habits, lifestyle choices, and overall health of their children. The present study entitled “Assessment of Nutritional Status and Association of Lifestyle Practices of 6–12 Years School-Going Children with Their Parents” was undertaken in Dabua Colony, Faridabad (Haryana). The study included 150 school-going children aged 6–12 years and their parent, selected through purposive random sampling. Data collection involved anthropometric measurements (height, weight, BMI), assessment of lifestyle practices by self-structured questionnaire (sleep, physical activity, screen time, and meal frequency), and dietary intake using a Food Frequency Questionnaire (FFQ). Parental nutritional knowledge was evaluated on balance diet, type of nutrients, function of calcium and iron, essential nutrients for boys and girls and nutrition education was given to the parents through ppt presentation. Statistical analysis was performed using descriptive measures like mean, standard deviation, frequency, percentage and chi-square tests to assess associations between parental and child lifestyle practices. The mean height of children was 125.9 ± 21.2 cm, with 80 above and 70 below the mean, while the mean weight was 33.4 ± 11.1 kg, with 73 above and 77 below the mean. Based on BMI-for-age classification, 51% of children were well-nourished, 8% were underweight, 24% overweight, and 17% obese, reflecting both undernutrition and overweight in the same community. Lifestyle analysis showed that both parents and children reported inadequate sleep (4–6 hours), high screen exposure, irregular breakfast habits, and insufficient physical activity. FFQ findings highlighted that while cereals and pulses were consumed daily, fruits, vegetables, and milk intake were inadequate, whereas fast foods, sugary drinks, and packaged snacks were frequently consumed. Parental nutrition knowledge was initially poor, particularly regarding iron, calcium, and dietary diversity, but showed significant improvement after the intervention. The chi-square test revealed significant associations between parents and children for sleep duration, physical activity, screen time, breakfast consumption, fruit and vegetable intake, and fast food/sugary drink consumption, confirming that children’s behaviours strongly mirrored those of their parents. The study concludes that nutritional status and lifestyle practices of school-going children are closely linked with those of their parents. The

presence of both undernutrition and obesity reflects the ongoing nutritional transition in India. Findings emphasize the central role of parents in shaping children's dietary and lifestyle patterns, and demonstrate the effectiveness of nutrition education in improving parental knowledge. Strengthening family-based interventions, school health programs, and community awareness initiatives is essential to promote healthier growth and to combat the dual challenges of malnutrition among school-aged children.

Keywords: Anthropometric measurement, Lifestyle practices, Parents, School-going children, Food frequency, Nutrition education, Malnutrition.

Ancient Indian Methods For Ocular Wellbeing: Ayurveda, Yoga, and Their Significance To Eyecare Today

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ABSTRACT

Introduction: Ancient Indian medical traditions, including Ayurveda and Yoga, provide holistic systems for ocular wellness and treatment of ocular illness. The Sushruta Samhita records extensive descriptions of the anatomy of the eye, classification of ocular diseases, and surgical procedures, with yogic practices emphasizing enhancement of function and prevention of visual fatigue. As lifestyle-related ocular disorders become more prevalent, reconsideration of these traditional methods is pertinent to contemporary optometry and ophthalmology.

Methods: A narrative review of the literature was undertaken via classical Ayurvedic literature and contemporary scientific databases (PubMed, PMC, Science Direct). Twenty-three primary sources were prioritized, highlighting Ayurvedic eye therapies (e.g., Netra Tarpana, Panchakarma), herbal medications, yogic eye exercises, and how these are combined with contemporary eye care. Data were synthesized via thematic analysis to evaluate preventive, therapeutic, and educational properties.

Results: The review revealed robust preventive and adjunctive potential of the Ayurvedic and yogic methods. Netra Tarpana and Panchakarma treatment manifested improvements in ocular comfort and surface health. Herbal formulations like Triphala exhibited antioxidant and anti-inflammatory action pertinent to cataract and dry eye management. Yogic interventions like Trataka and ocular exercises manifested diminishment of digital eye strain and enhanced accommodative function. Current clinical trials favor integration with conventional regimens, whereas educational models are transforming to accommodate Indian Knowledge Systems within optometry programs.

Conclusion: Ayurveda and Yoga offer useful, evidence-based strategies for comprehensive ocular well-being. Combining these ancient methods with current eye care has the potential to improve preventive care, enhance patient success, and support culturally appropriate health practices. Standardized implementation requires additional clinical studies and policy endorsement.

Keywords: Ayurveda, Yoga, Ocular Health, Netra Tarpana, Trataka, Optometry, Integrative Eye Care

Ayurveda and Yoga For Sustainable Urban Health: Ancient Wisdom in A Digital Era

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ABSTRACT

By 2050, nearly 70% of the global population will reside in urban areas, where lifestyle diseases, mental health disorders, and ecological stress converge into an unprecedented health crisis. While Ayurveda and Yoga are widely acknowledged for their therapeutic value, their potential to inform urban sustainability and digital health remains underexplored. This study seeks to reposition these Indian Knowledge Systems as epistemic and experiential resources for advancing holistic urban health beyond biomedical reductionism. Methodologically, the research applies textual hermeneutics of classical Ayurvedic treatises and Yogic philosophy, alongside a cross-comparative analysis with sustainability studies and digital health frameworks. It critically examines emerging practices, such as tele-yoga platforms, AI-assisted lifestyle monitoring, and wellness applications through the lens of principles like prevention, balance (sāmya), and ecological harmony. The findings suggest that integrating Ayurvedic and Yogic paradigms into digital infrastructures creates culturally embedded, scalable, and ecologically conscious pathways for preventive healthcare. For instance, digital adaptations of daily and seasonal regimens (dinacharya, ritucharya) illustrate how ancient frameworks can enrich contemporary wellness technologies. The broader implication emphasizes that embedding Ayurveda and Yoga within digital health policy not only alleviates systemic urban health pressures but also contributes to global sustainability agendas, aligns with SDGs, and decenters hegemonic biomedical models by foregrounding plural epistemologies of well-being. This paper argues that the convergence of ancient wisdom and digital innovation can generate a transformative paradigm for sustainable urban futures.

Keywords: Ayurveda, Yoga, Urban Sustainability, Digital Health, Indian Knowledge Systems

Comparative Assessment of Hematological, Immunological, and Respiratory Effects of Chemical and Traditional Mosquito Repellent Practices Among Users and Non-Users: An Indian Knowledge System-Based Study

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ABSTRACT

This study aimed to evaluate and compare the hematological, immunological, and respiratory effects of chemical and traditional mosquito repellent practices among users and non-users, integrating insights from the Indian Knowledge System (IKS). A total of 120 participants were categorized into four groups: chemical repellent users, traditional repellent users, combined users (both chemical and traditional), and non-users. Blood samples were analyzed for hemoglobin levels, eosinophil count, immunoglobulin levels, and respiratory function tests were conducted. The findings indicated significant differences in immune responses and respiratory health across the groups, highlighting the potential benefits of traditional practices rooted in IKS.

Keywords: Chemical mosquito repellents, Traditional repellents, Indian Knowledge System (IKS), Hematological parameters, Immunological effects, Respiratory function, Eosinophil count, Immunoglobulins, Hemoglobin levels, Public health

Characterization of Lactobacillus, Bifidobacterium, and Streptococcus Species in Traditional Indian Dairy Ferments: Bridging Indigenous Practices With Modern Probiotic Science

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ABSTRACT

Traditional Indian dairy products such as curd, lassi, buttermilk, and paneer have been integral to Indian diets for centuries, offering not only nutrition but also health-promoting microbial populations. These naturally fermented foods serve as reservoirs of probiotics, particularly species of Lactobacillus, Bifidobacterium, and Streptococcus, which are known to contribute to gut health, immune modulation, and protection against gastrointestinal infections. Despite their widespread use, the microbial diversity and functional potential of these indigenous dairy products remain underexplored in contemporary scientific literature.

This study aimed to characterize the probiotic microflora in traditional Indian dairy ferments by combining classical microbiological techniques with molecular approaches, including 16S rRNA sequencing and colony-based identification. Samples were collected from multiple geographic regions to account for regional variations in microbial composition. The investigation revealed a rich diversity of Lactobacillus species, such as *L. acidophilus*, *L. plantarum*, and *L. casei*, alongside Bifidobacterium bifidum and B. adolescentis, and Streptococcus thermophilus and S. lactis. Functional analysis indicated that these strains possess acid and bile tolerance, adhesion capacity to intestinal epithelial cells, and antimicrobial activity against common pathogens, highlighting their probiotic potential.

The findings underscore the scientific validity of indigenous fermentation practices and demonstrate their compatibility with modern probiotic frameworks. By integrating traditional knowledge with contemporary microbiology, this study provides a foundation for developing functional foods, nutraceuticals, and community-based dietary interventions that are culturally relevant and biologically beneficial. Such an integrative approach not only preserves India's culinary and microbial heritage but also supports sustainable strategies for promoting gastrointestinal health.

Keywords: Traditional Indian dairy, Probiotics, Lactobacillus, Bifidobacterium, Streptococcus, Fermented foods, Gut health, Indigenous knowledge systems, Functional foods, Nutraceutical potential

Ancient Indian Knowledge Systems and The Financial System: Pathways For Modern Adaptation

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ABSTRACT

The financial system has always been the cornerstone of economic stability, social development and governance. While contemporary finance is shaped primarily by the Western model of economics and banking, the ancient Indian knowledge system (IKS) provides a rich reserve of financial knowledge which is highly relevant in today's context. This letter examines the intersection of ancient Indian financial views and modern financial systems, with special attention to the routes through which these traditional principles can be adapted to contemporary practices. Kautilya, Manu Smriti, and other religious scriptures provide a detailed insight into text taxation, money distribution, business regulation, credit mechanism, moral investment and state financial management by literature. Unlike the proficiency approach to dominate the current finance, the ancient Indian structure emphasized stability, social welfare and religion (moral) responsibility as an integral part of financial decision making. The study identifies the main subjects of IKS in Finance, including overall money (ARTH), responsible resource allocation, trust-based credit systems and community-operated economic structures. It also checks how ancient financial models integrated morality and stability principles are recognized as essential in modern finance through permanent banking, green finance and social impact investment. In addition, the paper highlights the adaptability of ancient Indian financial knowledge in areas such as taxation policy, inclusive banking model, financial literacy and corporate administration. By drawing similarities between traditional practices and modern innovations such as microfinance, digital payments, and fintech solutions, the study shows how ancient insight may be referred to to support the just and flexible financial ecosystem. Ultimately, paper offers a route to modern adaptation of Indian knowledge systems in finance, emphasizing that the fusion of tradition and innovation can be more moral, inclusive and durable financial architecture.

Keywords: Indian Knowledge Systems, Financial System, Arthashastra, Ancient Indian Economics, Ethical Finance, Inclusive Banking, Modern Adaptation.

Yoga and Health Economics: Accessing The Role of Indian Wellness Practices in Reducing Healthcare Costs and Promoting SDG-3

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ABSTRACT

Yoga, an integral component of India's ancient wellness practices, has a holistic solution for physical, mental, and emotional well-being. In the contemporary era, increasing healthcare expenditures due to lifestyle disorders like diabetes, high blood pressure, and depression have become a serious economic issue. This research paper, grounded on secondary data and literature review, discusses the economic contribution of Yoga in minimizing healthcare spending and fostering Sustainable Development Goal 3 (Good Health and Well-being). The research discusses findings from existing research papers, government documents, and data from WHO to evaluate how Yoga is helpful in preventive care, minimizes the necessity of expensive medical interventions, and enhances productivity. Findings from studies reviewed show that frequent practice of Yoga can drastically reduce disease risks as well as health expenditures. The paper concludes that incorporating Yoga into public health systems can be a cost-saving and sustainable approach to enhancing population health and fulfilling SDG-3 targets.

Keywords: Yoga, Health Economics, Sustainable Development Goal 3, Indian Wellness Practices.

Bridging Traditional Wisdom and Modern Science For Food Security: An Indian Knowledge System Perspective

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ABSTRACT

Food security, an enduring concern for all humanity, has been deeply recognized in the Indian Knowledge System (IKS) as integral to the concept of Annadana - the sacred act of ensuring nourishment for all living beings. This comprehensive review revisits the issue of food safety and microbiological threats within the food supply chain through both modern scientific understanding and the holistic lens of traditional Indian wisdom.

The study explores the spectrum of microorganisms- bacteria such as Salmonella, Listeria, and E. coli; viruses like norovirus and hepatitis A; and parasites such as Giardia and Cryptosporidium- that jeopardize public health and food security. In line with Ayurvedic and ecological principles emphasizing Ahara Shuddhi (purity of food) and Jeeva Samrakshana (protection of all forms of life), the paper highlights how contamination can occur from seed to plate, revealing vulnerabilities at each stage of production, processing, and distribution.

The review emphasizes a need for harmony between modern bioscience and traditional agricultural ethics rooted in sustainability (Krishi Parampara). Emerging infections are discussed not only as biological phenomena but also as consequences of disrupted ecological balance, aligning with IKS concepts of Panchamahabhuta (five elements) and the inter-connectedness of all living systems.

Advancements in molecular detection and bioinformatics are evaluated alongside indigenous preventive practices such as natural food preservation, use of herbal antimicrobials, and promotion of biodiversity in farming. The sustainability of current safety frameworks—Hazard Analysis and Critical Control Points (HACCP), Good Agricultural Practices (GAP), and Good Manufacturing Practices (GMP)—is examined with reference to traditional systems that emphasize Satvik Ahara (wholesome food) and community-based vigilance.

Finally, the paper discusses the socioeconomic dimensions of foodborne illnesses, particularly in developing regions, underscoring that true food security requires not only technological control but also ethical stewardship and participatory governance. Integrating IKS principles with scientific strategies can thus pave the way toward a safer, sustainable, and spiritually conscious food ecosystem.

Keywords: Food Security; Indian Knowledge System (IKS); Microbial Food Safety; Sustainable Agriculture; Traditional Wisdom; Ahara Shuddhi; Public Health

Integrating Traditional Indian Knowledge Systems With Contemporary Sustainability Practices For Enhanced Environmental Conservation

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ABSTRACT

India boasts a strong record of employing Traditional Knowledge Systems (IKS) for environmental protection, as indicated by conventional methods such as indigenous cultivation, collective water collection (Johads), and safeguarding biodiversity through sacred forests (Devrai). The deliberate integration of this indigenous knowledge with contemporary paradigms of sustainability that are sometimes technocentric and inattentive to local contexts is still a great research and policy gap despite their demonstrated effectiveness. This essay attempts to bridge this gap by looking into how traditional ecological knowledge can complement and enhance modern conservation strategies. The study cracks the socio-ecological principles of such traditional systems through a mixed-methods approach involving ethnographic fieldwork, detailed case studies, and systematic literature analysis. acting upon IKS incorporation has three significant benefits: social (community empowerment and cultural renaissance), economic (affordable sustainable livelihoods and reduced reliance on external inputs), and environmental (improved biodiversity, soil health, and water security). This study matters since it can influence policy by offering an all-round and culturally appropriate framework for delivering the Sustainable Development Goals (SDGs) globally. A replicable model for policy makers, strategies to promote public participation, and a detailed analysis of the barriers to integration, including historical marginalization and market pressures, are some of the hoped-for outcomes. This research finds that blending traditional and contemporary knowledge is not a nostalgic activity but a creative and revolutionary path towards developing stronger, more just, and more effective environmental preservation for the future.

Keywords: A Traditional Ecological Knowledge.

“Meditation and Yogic Practices: With Special Reference To Indian Knowledge System”

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ABSTRACT

Meditation and yogic practices are a part of the Indian Knowledge System (IKS); they work with mind, body, and consciousness to create balance. These practices have garnered increasing interest in psychology in the past several decades due to their therapeutic potential. This review will discuss the following three scopes: (a) the historical and philosophical context of meditation and yogic practices as part of IKS; (b) psychological benefits (i.e., stress management, emotional regulation, cognitive enhancement, etc.); (c) implications for clinical treatment of mental health and adapting IKS-based practices. In this way, this paper will tie together three closely connected fields of study. Research indicates that meditation and yogic practices may positively impact psychological treatment, mental well-being, and fields of attention, memory, and emotional control. In summation, meditation and yogic practices have demonstrated some potential as adjunctive psychological practices. However, more longitudinal studies and cross-cultural investigation is needed to further substantiate application.

Narration As Epistemology: Mahābhārata and Indian Knowledge Traditions

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ABSTRACT

This paper reframes the Mahābhārata as a pedagogical text, where narration itself becomes an epistemic practice central to the transmission, reflection, and renewal of knowledge. The Mahābhārata demonstrates how narration operates as a sustained mode of engagement with the ethical, philosophical, and practical dimensions of human life. Through its layered structure, dialogic pedagogy, and performative traditions, it encodes diverse domains of wisdom such as ethics, governance, cosmology, ecology, psychology, and philosophy; while sustaining a plural and participatory approach to inquiry. Narrators such as Vyāsa, Vaiśampāyana, Ugrasravas, Sanjay serve as epistemic mediators, showing that knowledge in Indian traditions is not transmitted as fixed doctrine but cultivated as an open-ended process of dialogue and reinterpretation. The paper argues that the Mahābhārata operates as a living pedagogical archive; recursive, integrative, and culturally grounded; where narrative serves as both method and medium of knowledge.

Keywords: Mahābhārata, Indian Knowledge Systems, narration, epistemology, holistic education

Formulation and Organoleptic Evaluation of Traditional Foods Prepared From Maize-Oat-Tulsi Flour Blends

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ABSTRACT

A study was conducted on Quality Protein Maize (QPM) mixture, oat (HJ-8), and tulsi leaves. QPM is enriched with lysine and tryptophan, enhancing its protein quality. Oats contribute β -glucan fibre and essential fatty acids that support heart health, while tulsi leaves, a nutritional powerhouse, add antioxidants, minerals, and bioactive compounds. Six types of blend flours- Type-I, Type-II and Type-III (maize: oat blends in ratios of 85:15, 70:30, and 55:45W/W, respectively) and Type-IV, Type-V and Type-VI (maize: oat: tulsi leaves in ratios of 80:15:5, 65:30:5, and 50:45:5 W/W, respectively) were prepared. Traditional products, such as chapatti, laddoo, mathi, and sev, were developed using these blended flours and evaluated organoleptically. Based on sensory evaluation, chapattis, laddoos, mathis, and sev prepared from Type II and Type V blend flours were found to be most acceptable. Chapatti from Type-II blend flour was rated as “liked very much,” while mathi and sev were rated as “liked moderately”. Nutritional evaluation revealed that Type-II chapatti and Type-I laddoo, mathi, and sev had significantly higher crude protein content. In contrast, the crude fibre and ash contents were highest in Type-V products. The findings suggest that incorporating Tulsi leaves into maize-oat flour blends enhances both the nutritional value and acceptability of the blend. Overall, the study highlights the potential of maize–oat–tulsi blends in improving the nutritional profile and consumer acceptability of traditional food products.

Keywords: Maize, oat, tulsi leaves, blend flour, chapatti, laddoo, mathi, sev nutritional evaluation and sensory evaluation

Fear of Missing Out (Fomo) As A Psychological Catalyst in Spiritual Tourism: An Indian Knowledge Systems Perspective

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ABSTRACT:

Spiritual tourism in India has been deep-rooted in ancient cultures and pilgrimages which are the practices and modes that reflect the Indian Knowledge Systems (IKS). Nevertheless, in the digital age, the problem of Fear of Missing Out (FOMO) as a psychological phenomenon becomes an important factor that determines whether people choose to engage in spiritual practices or not. The paper examines how FOMO influences the choice of tourists to visit spiritual sites, go to yoga retreats, or attend festivals and rituals, in particular, when aroused by continuous exposure to social media materials. Based on IKS views and reflections, this paper will analyze FOMO not only as a new digital phenomenon but as a more complex psychological condition that is related to human desire to belong to a group, to experience some sacred emotions, and to transcend oneself. The study brings to the fore the attractiveness of religious destinations like Rishikesh, Haridwar, and the Char Dham to people who feel threatened of missing out on a once in a lifetime spiritual development and cultural experience. The paper suggests that FOMO is a mental trigger, and it can hasten the engagement in spiritual tourism and at the same time making one question the authenticity and ethical manner of marketing. This conceptual discussion is a part of the emerging discussion of spirituality and psychology, which combines modern behavioral science with the rich heritage of spiritual India. The results will give theoretical implications as well as practical implications through which the spiritual tourism in India can be promoted in a responsible way that does not overstep the ethos of IKS.

Keywords: FOMO, Spiritual Tourism, Indian Knowledge Systems, Psychology, Cultural Heritage.

Reviving Indigenous Food Wisdom Through Millets: Sensory Evaluation of Roti Prepared With Pearl Millet (BAJRA)

Meha and Uttara Singh

ABSTRACT:

Introduction: Traditional Indian food systems have emphasized a balance between nutrition, health, and sustainability. Rooted in centuries of agricultural and culinary wisdom, these systems valorize locally available, seasonal, and nutrient-dense foods. Millets—revered in ancient texts as Shree Anna—embody this heritage through resilience, nutritional richness, and adaptability. Pearl Millet (Bajra) holds cultural and nutritional importance for its high fiber, iron, and energy content, as well as its ability to promote satiety and digestive health. Historically, Bajra has been a staple in regional cuisines, valued for nourishment and sustainability.

This study evaluated the sensory acceptability of Roti prepared using Bajra and whole wheat flour in three ratios—100:0, 70:30, and 50:50. Sensory parameters including color, texture, flavor, aroma, and overall acceptability were assessed using a nine-point hedonic scale.

Methods: An experimental design was adopted using three flour combinations. A semi-trained panel of 20 participants conducted sensory evaluations under standardized preparation conditions. Mean scores and qualitative observations were analyzed to interpret sensory responses in relation to traditional food practices.

Results: Roti made with 100% Bajra flour achieved the highest scores, with overall acceptability ranging from 7.80 to 8.90 (“liked moderately” to “liked very much”). Panelists valued its nutty flavor, earthy aroma, and soft texture. Bajra incorporation enhanced sensory appeal while aligning with traditional dietary principles.

Conclusion: The findings reaffirm Bajra’s value as a nutritionally rich and culturally rooted cereal. Incorporating heritage grains like Bajra into modern diets can promote health, support sustainable agriculture, and preserve India’s culinary legacy.

Keywords: Pearl Millet, Bajra, Traditional Wisdom, Sensory Evaluation, Heritage Foods, Sustainable Nutrition

Role of Seed Cycling As Traditional Therapy in Menstrual Cycle

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ABSTRACT

The purpose of this study is to investigate the utilization of seed cycling as a natural dietary intervention and therapy for treating menstrual regularity, cramps, and pre-menstrual symptoms in women with an irregular menstrual cycle and/or dysmenorrhea. The prevalence of hormonal imbalance in women has increased, which affecting the balance of vital hormones, particularly Estrogen, Progesterone, LH, and FSH. When these hormones are not in balance, it can cause several kinds of menstruation problems. The seed rotation diet for optimal nutrition involves consuming certain seeds at different stages of the menstrual cycle (follicular and luteal). During the follicular period, it is recommended that you eat pumpkin seeds and flax seeds. Similarly, during the luteal stage, it is recommended that you include sunflower and sesame seeds into diet to help maintain hormonal balance. These seeds contain lignan, phytoestrogen, antioxidants, omega-3 and omega-6 fatty acids, protein, carbs, fibre, and a variety of vital minerals such as calcium, salt, manganese, iron, zinc, and copper which reduce inflammation and support hormone production. Seed cycling helps your body achieve a normal rhythm by either removing or producing surplus hormones. Rotating these seeds during the menstrual cycle can aid with hormone function. Works in women is referred to as the seed rotation diet for optimal nutrition. By presenting evidence-based insights, this review supports the great potential of seed cycling as a feasible, holistic approach to enhancing women's reproductive health.

Keywords: Seed cycle, Menstruation, Traditional healing, PCOS, Hormones, Seed cycle Treatment, reproductive hormones, Seed, Progesterone, Hormonal Imbalance, menstrual cycles

Scientific Validation of Traditional Indian Physical Therapies Using Biomechanical and Imaging Tools

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ABSTRACT

Introduction: Traditional Indian physical therapies (TIPTs) such as yoga, pranayama, abhyanga (Ayurvedic massage), and marma therapy are widely used for health promotion, musculoskeletal rehabilitation, and stress reduction. Despite their popularity, scientific validation using objective tools is limited. Biomechanical and imaging techniques offer a robust framework to evaluate their physiological and structural effects.

Methods: A narrative review was conducted by searching PubMed, PMC, ResearchGate, and clinical trial registries up to 2025. Keywords included yoga biomechanics, pranayama imaging, ultrasound elastography, marma therapy, and MRI yoga. Peer-reviewed clinical trials, pilot studies, and methodological papers that combined TIPTs with biomechanical (motion capture, EMG, force plates, IMUs) or imaging tools (ultrasound, elastography, MRI, fMRI, thermography) were included.

Results: Biomechanical analyses using motion capture and EMG have quantified joint kinematics, muscle activation, and balance changes during yoga asanas. Imaging modalities, including ultrasound and elastography, have documented changes in muscle thickness and tissue stiffness, while MRI and fMRI studies have demonstrated neuroplastic alterations following yoga and pranayama. Abhyanga has shown autonomic modulation and local perfusion changes through thermal imaging and heart-rate variability studies, whereas marma therapy research remains limited but anatomically plausible. Overall, evidence supports functional and physiological benefits, though structural imaging changes require longer follow-up and larger sample sizes.

Conclusion: Biomechanical and imaging tools provide objective evidence supporting the efficacy and mechanisms of traditional Indian physical therapies. While yoga and pranayama are increasingly validated, abhyanga and marma therapy need more rigorous, multimodal studies. Standardized outcomes, larger RCTs, and longitudinal imaging are essential for integrating TIPTs into evidence-based rehabilitation and healthcare frameworks.

Keywords: Traditional Indian physical therapies, yoga, pranayama, abhyanga, marma therapy, biomechanics, motion capture, EMG, ultrasound elastography, MRI, fMRI, imaging validation.

The Role of Indian Knowledge System in Environmental Stewardship Through Traditional Wisdom and Modern Sustainability

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ABSTRACT-

Indian tradition has historically intertwined environmental awareness within its social and spiritual traditions via communal practice, religious festivals and spiritual customs. These approaches originated from the Indian Knowledge Systems, shows a deep consciousness of environmental balance and ecological sustainability. Cultural rituals like Bhoomi Vandana , Nadi Poojan, Vriksha Pooja represents veneration towards the environment's fundamental elements, promoting a collective duty for protecting the environment. Traditional festivals such as Chhath Puja, Makar Sankranti, Pongal, Lohri honour seasonal farming patterns, climatic transitions and ecosystem diversity, reflecting the alignment of human life with natural environment.

This paper addresses how these traditions, rituals and spiritual practices serve as powerful means for ecological learning and community driven ecological guardianship. By applying qualitative research approach that integrates analysis of scriptures, ethnographic data and modern case-studies, this work explores the influence of spiritual and cultural practices on environmental ethics, stewardship of resources and ecological sustainability. It further illustrates, the ways from which modern Indian environmental movements may derive guidance from ancestral environmental conscious traditions to encourage environmental responsibilities and support innovative policy making.

Through the reinterpretation of these traditions and rituals from the perspective of contemporary sustainability framework, this study highlights the need of renewed acknowledgement of Indian Knowledge System as an important foundation for environmental consciousness and resilience to climatic changes. Incorporating this traditional wisdom into teaching, governance policies and community projects may contribute to international debate on culturally inspired sustainable living.

Keywords: Indian Knowledge System, Culture, Environment Consciousness, Traditions, Rituals, Ecological Sustainability.

Revitalizing Soil Biomes: An Integrative Model Combining Principles from Vrikshayurveda (the Science of Plant Life) and Modern Permaculture for Sustainable Agriculture

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ABSTRACT:

We stand at a critical juncture where the dominant agricultural paradigm has precipitated a profound ecological crisis: the systematic degradation of our soil biomes. This erosion of the subterranean microbial biodiversity, essential for ecosystem vitality, now poses a direct threat to global food security and requires an urgent shift towards more holistic and regenerative models. While contemporary frameworks like Permaculture offer a robust architecture for ecological design, they represent only one part of a potential solution. A deep, yet largely untapped, repository of wisdom exists within ancient knowledge systems. This paper argues that the Indian science of Vrikshayurveda offers a sophisticated and philosophically-grounded corpus of knowledge that can significantly amplify the efficacy of modern sustainable practices. The central thesis of this research is the delineation of a novel integrative model that synergizes the design principles of Permaculture with the foundational tenets of Vrikshayurveda. This is not merely a historical review, but the construction of a bridge between ancient wisdom and contemporary application. The objective is to create a practical framework for soil biome revitalization that is more potent, resilient, and culturally-grounded than either system can be in isolation. Through a comparative analysis of classical literature and modern design ethics, this study maps key points of synergy. It moves from theory to practice by integrating specific Vrikshayurvedic techniques—such as the preparation of microbial inoculants like Kunapajala and methods for seed potentiation (bīja-saṃskāra)—into a structured, modern Permaculture design. Ultimately, this research presents a scalable and replicable pathway towards rebuilding soil fertility and enhancing food sovereignty. By re-contextualizing ancient Indian ecological science, this model offers a tangible method for unleashing the potential of traditional wisdom to address one of the most pressing challenges of our time: healing our relationship with the land.

Keywords – Vrikshayurveda, Permaculture, Soil Biome, Sustainable Agriculture, Indian Knowledge Systems (IKS), Regenerative Agriculture, Traditional Ecological Knowledge (TEK), Kunapajala.

Sufi Traditions and Ayurveda: A Cross-cultural Dialogue between Islamic Mysticism and Indian Knowledge Systems

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ABSTRACT:

The connection between Sufi traditions and Ayurveda represents one of the most meaningful examples of how spiritual and medical knowledge interacted within India's diverse intellectual heritage. Although both systems emphasize compassion, balance, and purity, the relationship between them has not been widely studied. This paper explores the meeting points between Sufi mysticism and Ayurvedic philosophy, with a special focus on Kerala, where Islamic and Indian traditions have long coexisted in harmony. The main question this study addresses is how Sufi spiritual practices and Ayurvedic healing ideas influenced one another in promoting physical and inner well-being. It looks at how these two knowledge systems shared a common goal of achieving equilibrium between body, mind, and soul, and how that goal shaped community life and ethical understanding. The study follows a qualitative and comparative methodology, using classical sources such as the Tibb al-Nabawi and Charaka Samhita, along with oral histories, local practices, and observations from Sufi shrines and Ayurvedic centers in Kerala. By comparing textual insights with lived experiences, the research uncovers the subtle ways in which these two systems complemented each other. The findings show that Sufi meditation, music, and purification rituals resonated deeply with Ayurvedic concepts of mental and physical balance. This cultural dialogue encouraged holistic wellness and interfaith understanding. It also fostered a unique intellectual culture where spiritual healing merged with practical science. In conclusion, the Sufi-Ayurveda connection reveals how Islamic mysticism enriched the Indian Knowledge System through shared ethical and spiritual values. The study highlights Kerala's enduring role as a bridge between Islamic and Indian wisdom, reminding us that traditional systems can still guide modern society toward health, peace, and coexistence.

Keywords: Sufism; Ayurveda; Kerala; Islamic Mysticism; Indian Knowledge System; Intercultural Dialogue; Spiritual Healing; Holistic Well-being

Cultural Ecology of Beauty: How Sanskrit Literature Sustains the Ethos of Indian Civilization

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ABSTRACT

Sanskrit writings embody an innovative synthesis of aesthetics, ethics, and cosmology that together uphold the Indian civilization's cultural and moral framework. Stretching beyond just artistic practice, it is also an epistemological structure in which beauty (saundarya) is connected with truth (satya) and goodness (śivam), and it creates a triadic foundation for Indian intellectual heritage. This study discusses in detail the ways in which Sanskrit literary and aesthetic culture, and in particular writings like the Nāṭyaśāstra, Kāvyaḍarśa, and Bhāgavata Purāṇa, cultivate a “cultural ecology of beauty” — such a conceptual structure which harmonizes artistic imagination, spiritual consciousness, and ecological balance. The research combines textual and hermeneutical comparison, examining philosophical treatises and poetic literatures in Sanskrit and contemporary theories of sustainability and aestheticism. This research assesses how ancient consciousness in Sanskrit comprehends beauty as the transformative agent that maintains the psyche and yet upholds the cosmos of human society. It argues that the aesthetic in Sanskrit does not divide art and life but positions it in an holistic paradigm that upholds co-existence of the human, natural, and spiritual realms. The study asserts that the Sanskrit ideal of beauty — and ecological and ethical criterion — continues to form the essential paradigm for modern debates on sustainable culture and global welfare. By re-entering the aesthetic insight embodied in the Sanskrit writings, the study indicates its continued relevance for cultivating a civilizational culture of equilibrium, compassion, and innovative perennality — the necessary ingredients for rethinking sustainable tomorrow.

Keywords: Sanskrit Literature, Aesthetics, Cultural Ecology, Sustainability, Saundarya, Indian Civilization

Yogic Ecology: Reinterpreting Patanjali's Concept of Pratyahara as a Framework for Global Consumer Sustainability

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ABSTRACT

Sustainability has become both a moral and an ecological necessity in an era characterised by unbridled consumerism and ecological degradation. In order to rethink global consumer sustainability, this paper presents the idea of “Yogic Ecology,” interpreting Patanjali’s Pratyahara, the fifth limb of Ashtanga Yoga, as a paradigm shift. The study places Pratyahara in the context of a deliberate rerouting of sensory engagement from external material stimuli towards inward awareness, rather than ascetic withdrawal, drawing on the Yoga Sutras (II.54–55) and classical commentaries. This kind of reorientation fosters self-control, mindfulness, and restraint (*vairāgya*), which can be described as a “inner ecology” that reflects equilibrium in the outside world.

The study connects Yogic psychology with modern sustainability ethics, behavioural science, and ecological philosophy using a comparative philosophical and analytical approach. It makes the case that Pratyahara offers a cognitive-ethical framework for tackling the psychological causes of overconsumption, which include sensory overload, desire, and distraction. As an ethical discipline, Pratyahara fits in well with contemporary frameworks like degrowth economics, minimalism, and mindful consumption.

This study reinterprets ecological responsibility as an individual and collective act of consciousness by conceiving sustainability as an internal practice of sensory restraint. By stressing harmony (*samatva*) between human aspirations and environmental equilibrium, Yogic Ecology thus expands the discourse of Indian Knowledge Systems (IKS) beyond spiritual well-being to planetary ethics. According to the paper’s conclusion, incorporating Yogic insights into consumer behaviour and policy design can spark a paradigm shift away from external technological fixes and towards internal transformation, where self-awareness emerges as the planet’s most sustainable resource for the future.

Keywords -Pratyahara, Yogic Ecology, Sustainability Ethics, Indian Knowledge Systems (IKS), Mindful Consumption, Behavioral Sustainability, Degrowth Philosophy.

Traditional Rainwater Harvesting Practices in Uttarakhand Himalayan Villages: Integrating Indigenous Wisdom with Modern Climate Adaptation Policies

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ABSTRACT

In the Himalayan region, water scarcity has intensified under the pressures of glacial retreat, erratic rainfall, and rising climate vulnerability. Modern hydrological interventions, though technologically advanced, often fail to adapt to the ecological and cultural complexities of Himalayan villages. This creates a policy blind spot: the marginalization of indigenous water knowledge that historically ensured resilience in fragile mountain ecosystems. Focusing on Uttarakhand, this study explores traditional rainwater harvesting systems—naulas (stone-carved perennial springs), dharas (gravity-fed channels), and communal ponds—that once provided sustainable year-round water security but remain overlooked in current climate frameworks. The research problem centers on how these practices can be re-evaluated and integrated into modern adaptation policies to address today's water crises.

The study organises the relative advantages of traditional and contemporary water systems using a hybrid methodology that combines ethnographic fieldwork, archival research, and sustainability evaluation methods. The results show that traditional models, despite their confined scope, are excellent at low-energy design, community involvement, and micro-ecological flexibility, providing important insights for modern climate resilience. The debate makes the case for a hybrid policy strategy that incorporates indigenous practices into climate governance while digitally documenting and scientifically confirming them. The study shows how Uttarakhand's legacy of rainwater gathering can be repositioned as a crucial framework for global water security and sustainable development by fusing traditional ecological knowledge with sustainability science.

Keywords: rainwater harvesting, Indian Knowledge Systems, Uttarakhand, climate resilience, sustainability, indigenous practices

Reviving Indigenous Agroforestry Practices in Eastern India: A Comparative Study of Traditional and Modern Yield Metrics

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ABSTRACT

In the fertile landscapes of Eastern India, a paradox emerges: while modern agriculture promises abundance, ecological degradation, soil exhaustion, and biodiversity loss threaten the very foundations of food security. Monoculture farming and intensive chemical inputs, hallmarks of the Green Revolution, have delivered short-term productivity gains but at the cost of long-term ecological resilience and socio-economic equity. Against this backdrop, the question arises: can the ancestral wisdom embedded in indigenous agroforestry practices provide a viable pathway to sustainable agriculture in the 21st century? This study explores traditional agroforestry systems in Odisha, Jharkhand, and Bengal, emphasizing mixed-species plantations, intercropping, and community-managed forest gardens. Employing a comparative methodology that combines archival research, ethnographic interviews with local farming communities, and quantitative yield assessments, the research evaluates ecological outcomes, economic viability, and resilience against climate stressors. The findings reveal a compelling narrative: although modern monoculture systems may offer higher immediate yields, indigenous agroforestry consistently outperforms in soil fertility retention, carbon sequestration, biodiversity preservation, and long-term yield stability. Additionally, these practices strengthen community food sovereignty and reduce vulnerability to market fluctuations.

The study promotes a hybrid policy framework that incorporates traditional agroforestry knowledge into regional food security and climate adaption plans while digitizing and scientifically validating it. This study shows how Eastern India's agroforestry legacy may contribute to international discussions on ecological stewardship and sustainable agriculture by fusing traditional ecological knowledge with modern agricultural innovation.

Keywords: agroforestry, indigenous knowledge, Eastern India, food security, sustainability, traditional farming.

Response of Moringa Leaves Extract (MLE) To The Growth and Yield of Okra Variety

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ABSTRACT

The effects of Moringa Leaf Extract (MLE) treatments on okra (*Abelmoschus esculentus* L.) growth and yield parameters were assessed in a field experiment. The effects of six treatments including a control (T1) were evaluated in terms of plant height, flowering, leaf area index, branch count, pod length, and yield. The findings showed that treatment T3 considerably increased plant productivity and growth at every stage. T3 had the highest leaf area index (2.62), the greatest number of branches (9.18), the earliest 50% flowering (32.00 days), and the highest plant height (58.78 cm) at 90 DAS. The highest cumulative yield of 2763.52 g per 10 pods was obtained by T3, which also produced the longest pods and showed superior pod weights (16.27 g, 20.57 g, and 22.31 g) over the course of three harvests. The control (T1), on the other hand, had the lowest values in almost every parameter. The importance of MLE treatments, especially T3, in improving growth and yield performance was validated by statistical analysis. These results imply that MLE may be a viable environmentally friendly bio stimulant to enhance okra's growth characteristics and yield.

Keywords: - Plant Growth, Yield Attributes, Pod Weight, Leaf Area Index, Bio stimulant

Indian Knowledge Systems and Biocontrol Approaches: Synergistic Application of Entomopathogenic Fungi and Neem Oil to Combat Okra Leaf Hoppers

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ABSTRACT

The growing apprehension regarding pesticide resistance, environmental deterioration, and health risks linked to synthetic insecticides has heightened the quest for sustainable pest management approaches. Okra (*Abelmoschus esculentus* L.), a vital vegetable crop in India, is particularly vulnerable to leaf hoppers (*Amrasca biguttula biguttula*), which inflict considerable yield losses through sap feeding and the transmission of secondary infections. In this regard, entomopathogenic fungi (EPF) and neem-based formulations have surfaced as promising alternatives within integrated pest management (IPM) frameworks. Entomopathogenic fungi such as *Verticillium leccani*, *Beauveria bassiana* and *Metarhizium anisopliae* @ 5- 10 ml per liters are well-established biological control agents that infect leaf hoppers via direct cuticular penetration, resulting in host mortality through systemic colonization and sporulation. Concurrently, neem (*Azadirachta indica*) oil @ 5-10 ml/l, widely acknowledged in Indian Knowledge Systems (IKS) and traditional agriculture, functions as an antifeedant, oviposition deterrent, and growth regulator against insect pests. The combined application of EPF and neem oil exhibits synergistic effects: neem diminishes insect physiological defenses and curtails feeding activity, thereby promoting more effective fungal infection and colonization.

Indian Knowledge Systems, particularly Vrikshayurveda and folk practices, have historically underscored the utilization of plant extracts, cow-based formulations, and microbial-rich substrates for sustaining ecological balance in agricultural fields. Neem-based remedies, emphasized in ancient texts, closely align with modern eco-friendly biocontrol methodologies. Therefore, the integration of EPF with neem oil not only substantiates indigenous knowledge but also bolsters its scientific legitimacy. Furthermore, such strategies aid in the conservation of beneficial insects, the reduction of chemical pesticide application, and the resilience of agro-ecosystems amidst shifting climatic conditions.

This study investigates the effectiveness of EPF and neem oil in combating okra leaf hoppers, contextualizing the analysis within the larger scope of Indigenous Knowledge Systems (IKS). By integrating traditional wisdom with contemporary entomological developments, the research highlights the promise of eco-cultural biocontrol methods in realizing sustainable pest management. These collaborative strategies not only protect crop yields but also aid in the conservation of biodiversity and food safety, rendering them significantly pertinent to current and forthcoming agricultural issues.

Keywords: Indian Knowledge Systems, entomopathogenic fungi, neem oil, okra, leaf hopper, biocontrol, sustainable pest management

Formulation and Organoleptic Evaluation of Traditional Foods Prepared from Maize-Oat-Tulsi Flour Blends

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ABSTRACT

A study was conducted on Quality Protein Maize (QPM) mixture, oat (HJ-8), and tulsi leaves. QPM is enriched with lysine and tryptophan, enhancing its protein quality. Oats contribute β -glucan fibre and essential fatty acids that support heart health, while tulsi leaves, a nutritional powerhouse, add antioxidants, minerals, and bioactive compounds. Six types of blend flours- Type-I, Type-II and Type-III (maize: oat blends in ratios of 85:15, 70:30, and 55:45W/W, respectively) and Type-IV, Type-V and Type-VI (maize: oat: tulsi leaves in ratios of 80:15:5, 65:30:5, and 50:45:5 W/W, respectively) were prepared. Traditional products, such as chapatti, laddoo, mathi, and sev, were developed using these blended flours and evaluated organoleptically. Based on sensory evaluation, chapattis, laddoos, mathis, and sev prepared from Type II and Type V blend flours were found to be most acceptable. Chapatti from Type-II blend flour was rated as “liked very much,” while mathi and sev were rated as “liked moderately”. Nutritional evaluation revealed that Type-II chapatti and Type-I laddoo, mathi, and sev had significantly higher crude protein content. In contrast, the crude fibre and ash contents were highest in Type-V products. The findings suggest that incorporating Tulsi leaves into maize-oat flour blends enhances both the nutritional value and acceptability of the blend. Overall, the study highlights the potential of maize–oat–tulsi blends in improving the nutritional profile and consumer acceptability of traditional food products.

Keywords: Maize, oat, tulsi leaves, blend flour, chapatti, laddoo, mathi, sev nutritional evaluation and sensory evaluation

Towards Ethical Entrepreneurship in India: A Manusmṛti-Inspired Framework for Contemporary Business Governance

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ABSTRACT

This study explores a Dharmic Business Ethics Framework rooted in the ethical principles of the Manusmṛti and tailored to the contemporary Indian business environment. It reinterprets the concept of dharma governing the duties, roles, and responsibilities of householders and traders (vaiśya dharma), guiding entrepreneurs toward ethical decision-making. The framework encompasses key domains of business, including entrepreneurship, finance, human resources, marketing, trade, foreign trade, and dispute resolution, translating the moral guidance of the Manusmṛti into practical standards for modern business enterprises. It provides direction to Indian entrepreneurs by integrating Vedic wisdom with essential business competencies, covering areas such as ethical money lending, asset pledging and leasing ethics, guarantees ethics, banking ethics, sales and marketing ethics, wages and salaries ethics in human resource management, and foreign trade ethics. By bridging ancient Indian moral philosophy with contemporary business practices, this framework focuses on social harmony, ethical responsibility, and sustainable business conduct, offering a uniquely Indian perspective on business ethics.

Keywords: Ethical Entrepreneurship, Business Ethics, Vedic Wisdom, Manusmṛti Ethical Principles, Entrepreneurial

Indigenous Technical Knowledge (ITK): A Pathway to Sustainable Agriculture in India

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ABSTRACT

Indigenous Technical Knowledge (ITK) embodies the accumulated wisdom, ecological insights, and sustainable methodologies cultivated by traditional agricultural communities over generations of observation and experimentation. In India, ITK remains essential in advancing sustainable agriculture by improving soil health, preserving biodiversity, and ensuring enduring productivity with minimal environmental repercussions. Grounded in local culture and experience, these methodologies are environmentally friendly, cost-efficient, and tailored to specific agro-ecological contexts, such as the application of ash combined with castor oil to combat soil-borne diseases, turmeric and wood ash for managing powdery mildew, ginger extract as a natural antifungal, slaked lime to avert damping-off, and a blend of cattle urine and peppermint oil that serves as an effective pest control strategy in grape cultivation. In addition to crop protection, ITK includes soil fertility enhancement through composting, organic fertilization, seed preservation, mixed cropping, and traditional irrigation techniques that aid in nutrient recycling and augment climate resilience. These approaches collectively maintain the stability of agro-ecosystems while decreasing reliance on chemical fertilizers and pesticides. Nevertheless, despite their demonstrated efficacy, indigenous practices frequently remain undocumented, dismissed, or inadequately represented in formal agricultural research and policy frameworks. Enhancing collaborations between farmers and scientists, encouraging participatory documentation, and integrating ITK with contemporary innovations are vital measures for achieving sustainable agricultural transformation. Acknowledging and revitalizing Indigenous Technical Knowledge within modern agricultural systems can promote ecologically sound, economically sustainable, and socially inclusive farming, thereby ensuring food and environmental security for future generations in India.

Keywords: Indigenous Knowledge, Sustainable Agriculture, Soil Health, Pest and disease Management, Traditional Practices

Unveiling the Probiotic Heritage of Indian Fermented Foods: Integrating Indigenous Knowledge with Contemporary Microbial Research

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ABSTRACT

Indian fermented foods represent an invaluable confluence of culture, nutrition, and microbiology rooted in the Indian Knowledge System (IKS). For centuries, traditional preparations such as curd, lassi, idli, dosa, dhokla, kanji, and pickles have been prepared using natural fermentation methods passed down through generations. These foods are rich sources of beneficial microbial populations—particularly lactic acid bacteria (LAB)—that exhibit probiotic properties including enhancement of gut microbiota balance, immune modulation, and protection against pathogenic infections. Despite their widespread use, the scientific mechanisms behind these traditional fermentations have remained underexplored.

This study seeks to bridge indigenous knowledge with modern microbial science by characterizing the probiotic potential of traditional Indian fermented foods through advanced methodologies such as metagenomic sequencing, microbial profiling, and functional assays. The research underscores how ancient practices align with contemporary microbiological principles, validating the empirical wisdom embedded within IKS. By decoding the microbial diversity and resilience of these foods, the study highlights their potential as sustainable, culturally rooted sources for developing novel probiotics, functional foods, and nutraceuticals.

Moreover, integrating traditional fermentation wisdom into evidence-based frameworks promotes food sovereignty, supports local economies, and advances public health nutrition. Such an interdisciplinary approach not only preserves India's culinary and cultural legacy but also contributes to the global dialogue on sustainable health solutions derived from traditional practices. Ultimately, the research establishes Indian fermented foods as living microbial repositories that connect the heritage of IKS with the frontiers of modern microbiome science.

Keywords: Indian Knowledge System (IKS), Fermented foods, Probiotics, Lactic acid bacteria (LAB), Metagenomics, Functional foods, Indigenous microbiology, Nutraceuticals, Sustainable health, Gut microbiota

Comparative Study To Investigate Knowledge, Attitude & Practices Regarding Food adulteration Among Consumers of Dehradun and Roorkee Aged Between 25-35 Years

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ABSTRACT

Food adulteration refers to the deliberate or accidental alteration of food quality through the addition, removal, or substitution of ingredients that compromise its purity and safety. Such practices are often driven by economic motives, where low-cost or harmful substances are mixed to enhance appearance or quantity, leading to a serious threat to consumer health and nutrition.

This study aims to conduct a comparative assessment of the knowledge, attitude, and practices (KAP) related to food adulteration among consumers aged 25–35 years residing in Dehradun and Roorkee. The objective was to evaluate their level of awareness, perceptions, and preventive behaviors toward identifying and avoiding adulterated food products.

A structured questionnaire was designed and administered to a representative sample from both cities. The collected data were analyzed to measure variations in understanding of adulterants, detection ability, attitude toward food safety, and daily preventive practices. The findings revealed that participants from Dehradun displayed relatively higher awareness and cautiousness in purchasing food, whereas respondents from Roorkee demonstrated limited awareness and less proactive behavior.

The outcomes of this research highlight the urgent necessity for widespread consumer education programs, public awareness campaigns, and stringent enforcement of food safety regulations. Strengthening the role of both consumers and authorities can significantly reduce the risk associated with adulterated food consumption and contribute to improved community health standards.

Keywords: Food adulteration, consumer awareness, public health, food safety, knowledge- attitude-practice (KAP), prevention, regulation, Dehradun, Roorkee

Development of a Cattle Health Surveillance System Utilizing Machine Learning

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ABSTRACT

The advancement of applications that use machine learning to create behavioral and physiological monitoring systems, like ML-based animal health monitoring systems, has accelerated due to improvements in machine learning algorithms for animal health monitoring. Farm animals are being raised all over the world, and it is necessary to keep an eye on their health. Machine-learning algorithms were employed to forecast the state of wellness of the cattle while supplying farmers with real-time information on each animal's condition. Data reception, processing, and transmission responsibilities in response to requests were divided across six microservices that were suggested for this design. Additionally, a microservice for the LightGBM as method was created among the six microservices to forecast the health of cattle utilizing machine learning algorithms. Depending on the characteristics that the mobile node sent, this approach can be utilized to calculate the present wellness % value of each head of cattle. In the event that health issues are detected in the cattle, the architecture quickly alerts the farmer to the issues. According to the suggested approach, farmers will have round-the-clock internet access to track each cattle head's body temperature, heart rate, position, and humidity..

Keywords: Machine learning, Cattle, Health, lumpy, disease.

Integration of Ayurveda and Yoga in Modern Health Sciences: A Holistic Approach to Wellness

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ABSTRACT

Ayurveda and Yoga, two ancient disciplines originating from India, form the foundation of holistic health and wellness within the Indian Knowledge System. Ayurveda, often referred to as the “science of life,” emphasizes maintaining the equilibrium of the body, mind, and spirit through proper diet, lifestyle, and herbal practices based on individual constitution (Prakriti). Yoga, complementing Ayurveda, focuses on harmonizing the body and mind through physical postures (Asanas), controlled breathing (Pranayama), and meditation (Dhyana). In the present era, modern health sciences have made significant advancements in diagnosis, clinical management, and technology-driven treatment approaches. Together, these systems offer preventive and therapeutic approaches that promote physical, mental, and emotional well-being. Recent interdisciplinary research supports that combining Ayurvedic dietary principles, Yogic techniques, and evidence-based medicine improves metabolic health, strengthens immunity, and enhances mental well-being. This integration not only bridges traditional wisdom with contemporary evidence-based practices but also enhances overall quality of life by promoting balance, awareness, and preventive health.

Keywords: Ayurveda, Yoga, Holistic Health, Preventive Medicine Indian

PREVENTION OF CHILDHOOD OBESITY THROUGH INDIAN TRADITIONAL PRACTICES: AN INDIAN KNOWLEDGE SYSTEM APPROACH

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ABSTRACT

Childhood obesity is rapidly escalating in India, influenced by urbanization, processed food consumption, and reduced physical activity among children. Addressing this public health challenge requires culturally rooted and sustainable strategies. The Indian Knowledge System (IKS), encompassing Ayurveda, Yoga, and traditional Indian dietary practices, offers holistic and preventive frameworks for maintaining optimal health from an early age. According to Ayurveda, Ahara (diet) and Vihara (lifestyle) are central to sustaining Dosha balance and preventing Medoroga (obesity). Traditional Indian diets emphasize the Thali concept, integrating cereals, pulses, seasonal vegetables, fruits, dairy, and millets to ensure nutritional adequacy and satiety. Functional spices such as turmeric (*Curcuma longa*), cumin (*Cuminum cyminum*), and fenugreek (*Trigonella foenum-graecum*) possess bioactive compounds that enhance digestion, regulate lipid metabolism, and reduce inflammation. Additionally, cultural physical practices—such as Yoga, Surya Namaskar, and traditional games like kabaddi and kho-kho—promote cardiovascular endurance, flexibility, and mindfulness, countering sedentary behaviors. Ayurvedic lifestyle guidelines like Dinacharya (daily routine), Ritucharya (seasonal regimen), and mindful eating encourage discipline, regularity, and body- mind harmony. Integrating these IKS-based principles into school health programs and national nutrition initiatives can provide a culturally consonant, evidence-based approach to prevent and manage childhood obesity in India, fostering long-term health and well-being.

Keywords: Indian Knowledge System, Ayurveda, childhood obesity, traditional Indian diet, Yoga, preventive nutrition, lifestyle modification.

Traditional Indian Fermented Foods: Nutritional Value and Probiotic

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ABSTRACT

Fermentation has long been an integral part of India's culinary and cultural heritage, reflecting the wisdom embedded in Indian Knowledge Systems (IKS). Traditional Indian fermented foods such as curd, idli, dosa, dhokla, kanji, and pickles not only enhance flavor and shelf life but also contribute significantly to nutritional and functional health benefits. This review paper explores the nutritional composition, probiotic potential, and health-promoting properties of these indigenous fermented foods. Fermentation by lactic acid bacteria and yeasts improves the bioavailability of nutrients, enhances digestibility, and enriches the food matrix with beneficial microorganisms that support gut health and immunity. The paper also examines regional variations, traditional fermentation techniques, and the scientific validation of their probiotic efficacy. Furthermore, it highlights the potential of these foods in addressing contemporary health issues such as gastrointestinal disorders, lactose intolerance, and micronutrient deficiencies. By integrating traditional knowledge with modern nutritional science, this review underscores the importance of reviving and promoting fermented foods as sustainable, affordable, and functional dietary options in the modern era.

Keywords:

Indian Knowledge Systems, fermented foods, probiotics, lactic acid bacteria, gut health, nutrition, traditional diets, functional foods, sustainability, indigenous practices

Mental Health and Vedic Astrology – An Integrated Framework for Emotional Well-Being

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ABSTRACT

Mental health is a cornerstone of overall well-being, shaping how individuals think, feel, behave, and interact with the world around them. In the modern psychological framework, mental wellness is defined as the ability to realize one's full potential, to cope effectively with life's challenges, to maintain productive and meaningful functioning, and to make a constructive contribution to society. When this balance is disrupted, individuals may experience conditions such as depression and anxiety, which have emerged as major global health concerns. Depression is often characterized by persistent sadness, loss of interest, low energy, and cognitive decline, while anxiety manifests through excessive worry, tension, and physiological symptoms of fear. Both conditions impair functioning and diminish the quality of life, making mental health a subject of pressing concern in today's society.

From the lens of Vedic astrology, mental well-being is not only a psychological state but also a reflection of planetary influences in an individual's birth chart. Among the most sensitive indicators are the Moon (governing emotions, mind, and stability), Mercury (controlling intellect, nervous system, and logical processes), and Jupiter (bestowing wisdom, maturity, and resilience). These planets act as guardians of the mental realm, and their strength or weakness profoundly affects an individual's psychological equilibrium. Equally significant are the Lagna (ascendant), representing the self and identity, and the 5th house, which governs thought patterns, reasoning power, creativity, and intellectual clarity.

Astrological texts also emphasize the impact of planetary yogas. Afflictions such as Kemadruma Yoga, formed by the absence of planets on either side of the Moon, are associated with loneliness, instability, and vulnerability to mental distress. Conversely, benefic yogas like Gajakesari Yoga (Moon and Jupiter in mutual kendras) and Chandra-Adhi Yoga (benefics in 6th, 7th, or 8th from the Moon) provide mental resilience, optimism, balanced judgment, and emotional security. Thus, astrology offers a parallel diagnostic tool, identifying predispositions toward psychological challenges as well as the innate strengths that protect against them.

This paper proposes an integrated framework that bridges clinical psychology and Vedic astrology to deepen the understanding of mental health. By drawing parallels between psychological definitions of disorders and astrological indicators of vulnerability, it creates a holistic model of mental wellness. Such a model not only enhances our ability to diagnose risks and prevent imbalances but also offers complementary perspectives for fostering emotional balance, cognitive clarity, and resilience. In a world where mental health challenges are on the rise, this integrated approach invites a more comprehensive exploration of the human mind, uniting modern science with ancient wisdom.

Keywords: Mental health, Depression, Anxiety, Vedic Astrology, Moon, Mercury, Jupiter, Lagna, 5th house, Emotional well-being, Psychological resilience.

Indigenous Knowledge Systems for Appropriate Technology Development

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ABSTRACT

The concept of Indigenous Knowledge Systems (IKS) offers a rich foundation for developing technologies that are locally relevant, sustainable, and socially inclusive. This paper explores the role of indigenous knowledge in shaping appropriate technology—that is, technology designed in harmony with local needs, skills, and resources. Drawing from traditional engineering practices in India, such as ancient water management structures, vernacular architecture, and eco-sensitive material use, the study emphasizes how indigenous wisdom reflects a deep understanding of environmental balance and community participation. By analyzing case studies across civil engineering domains—ranging from traditional irrigation systems and earthen construction to decentralized waste management—the paper illustrates how IKS can inform contemporary design and innovation processes. Integrating IKS with modern engineering science can lead to technologies that are not only cost-effective and resilient but also culturally compatible and environmentally responsible. The research concludes that recognizing and institutionalizing indigenous knowledge within the framework of modern technology development is essential for achieving sustainable and inclusive growth in the civil engineering sector.

IKS-Based Approaches to Sustainable Urban Drainage: Lessons from Stepwells, Tanks, and Zabo Systems

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ABSTRACT

Rapid urbanization, climate variability, and the resulting hydrological imbalances have intensified the challenges of stormwater management in modern cities. Conventional drainage infrastructures, often designed for quick disposal rather than retention and recharge, have proven inadequate in addressing the dual crises of urban flooding and groundwater depletion. Against this backdrop, this study revisits India's rich heritage of Indigenous Knowledge Systems (IKS) in water management—specifically traditional water harvesting structures such as stepwells, tanks, and Zabo systems—to explore their potential role in shaping sustainable urban drainage strategies for the twenty-first century.

Traditional Indian water systems were not mere engineering artifacts; they embodied a holistic philosophy integrating hydrology, ecology, and social responsibility. Stepwells, prevalent across western and central India, demonstrate intricate architectural design coupled with scientific precision in managing fluctuating groundwater levels. They served as decentralized recharge nodes, ensuring year-round water availability while fostering community interaction and cultural identity. Similarly, tanks—widespread in southern and central India—functioned as multifunctional systems for rainwater collection, irrigation, and aquifer recharge, with carefully managed inlets, outlets, and percolation zones. The Zabo system of Nagaland, developed in hilly terrains, represents an exemplary model of integrated watershed management combining forestry, agriculture, and water conservation in a single ecological unit.

Through a multi-method approach involving literature review, case documentation, and comparative analysis, this research documents the structural features, hydrological logic, and socio-ecological dimensions of these traditional systems. The study highlights that their design principles—such as gravity-driven flow, decentralized storage, infiltration-based drainage, and community-centered maintenance—correspond closely to the principles underlying modern Sustainable Urban Drainage Systems (SUDS). However, unlike conventional SUDS models that often rely heavily on engineered interventions, traditional systems are inherently adaptive, climate-responsive, and ecologically regenerative.

An important contribution of this paper lies in framing these systems within the broader discourse of Indian Knowledge Systems (IKS). IKS emphasizes experiential learning, place-based adaptation, and ethical stewardship of natural resources. By viewing water as a living element (Jal Tatva) rather than a mere commodity, traditional practices incorporated ecological ethics, social cohesion, and spiritual reverence into water management. This philosophical orientation is critical for re-humanizing urban hydrology, which has become increasingly technocratic and fragmented. Integrating IKS perspectives thus enables a paradigm shift from “drain and discharge” to “retain, recharge, and reuse.”

The study further examines how these heritage systems can be reinterpreted in the context of modern urban design. For instance, the stepped geometry of stepwells can inspire urban infiltration courtyards

and recharge plazas; tanks can be re-envisioned as multifunctional stormwater retention ponds integrated into parks and public spaces; and the principles of the Zabo system can inform hill-urban drainage designs that couple vegetation, contour bunding, and natural filtration. These hybrid models—combining traditional wisdom and contemporary hydrological modeling—can strengthen urban resilience against flooding while promoting groundwater sustainability and ecological balance.

Moreover, the paper highlights the socio-cultural dimension of traditional water governance. Community participation, local craftsmanship, and temple-tank linkages ensured long-term maintenance and equitable distribution of water resources. Reviving such participatory frameworks within modern urban water governance could enhance public awareness and ownership, reducing dependency on centralized municipal systems. This aligns closely with the IKS philosophy of decentralized self-reliance (Swaraj) and collective responsibility.

By synthesizing indigenous engineering knowledge with modern scientific understanding, the research proposes an IKS-based framework for sustainable urban drainage planning. The framework emphasizes (1) ecological integration through nature-based solutions, (2) hydrological restoration via recharge and reuse, (3) socio-cultural embedding through participatory governance, and (4) heritage conservation as a tool for climate adaptation. This integrated approach supports India's Sustainable Development Goals (SDGs), particularly SDG 6 (Clean Water and Sanitation) and SDG 11 (Sustainable Cities and Communities).

The findings indicate that incorporating IKS into urban water management can provide low-cost, resource-efficient, and culturally contextual alternatives to conventional drainage infrastructure. Such systems, if scientifically assessed and locally adapted, could significantly mitigate flood risks, improve groundwater levels, and enhance urban livability. Furthermore, recognizing traditional water structures as “living heritage” opens new avenues for urban regeneration, eco-tourism, and educational awareness.

In conclusion, this study underscores that the revival and reinterpretation of India's traditional water wisdom through the lens of Indian Knowledge Systems is not merely an act of cultural preservation but a strategic necessity for sustainable urban futures. The convergence of ancient design intelligence and modern environmental science holds immense potential to create resilient, inclusive, and ecologically harmonious cities. By learning from the past and integrating indigenous principles into policy, planning, and practice, urban India can move towards a water-secure and climate-adaptive future—where every drop of rain is harvested, every citizen participates, and every traditional structure becomes a symbol of sustainability.

A Review of Vibration-Based Damage Detection in Civil Structures: Integrating Traditional Observation Methods with Modern Sensor Technologies

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ABSTRACT / Description:

This paper presents a comprehensive review of vibration-based damage detection techniques in civil engineering structures, emphasizing the integration of traditional observational practices with modern technological advancements. Conventional monitoring approaches—such as visual inspection, crack mapping, deformation pattern assessment, and utilization of natural indicators—have long served as primary tools for assessing structural integrity. However, these methods often lack the sensitivity required for early-stage damage detection. The study explores how these traditional techniques can be effectively combined with vibration-based methods supported by advanced sensor networks, Internet of Things (IoT) devices, and machine learning or deep learning algorithms. Such integration enhances the accuracy, reliability, and predictive capabilities of structural health monitoring (SHM) systems. The review further highlights recent developments in data-driven models, signal processing techniques, and real-time monitoring frameworks, aiming to establish a holistic and sustainable approach to infrastructure safety and maintenance.

Traditional Building Materials in Historic Indian Architecture: Properties, Performance, and Sustainable Potential

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ABSTRACT:

The architectural heritage of India reflects a profound integration of Indigenous Knowledge Systems (IKS) into the conception, materialization, and longevity of built environments. Traditional Indian architecture is characterized by the use of locally available materials such as mud, lime, and stone, which not only fulfilled structural requirements but also responded intelligently to climatic, social, and cultural contexts. These materials embody centuries of accumulated empirical knowledge, passed down through craftsmen, masons, and communities, reflecting sustainable practices that minimized environmental impact while ensuring durability and comfort. This chapter examines these materials from multiple dimensions: their physical and mechanical properties, durability, thermal performance, carbon footprint, and their potential application in contemporary low-carbon construction.

Mud, as a primary building material, demonstrates exceptional thermal insulation properties, enabling buildings to maintain stable indoor temperatures despite extreme diurnal variations. Its workability, availability, and compatibility with local ecosystems make it an ecologically favorable material. Lime, traditionally used for mortars, plasters, and finishes, offers superior breathability, moisture regulation, and flexibility, contributing to the long-term preservation of structures. Stone, employed in load-bearing walls, floors, and intricate carvings, provides unmatched structural strength and longevity. Each material reflects region-specific adaptation: for example, lime plaster in humid coastal regions prevents dampness, while mud walls in arid interiors ensure cooler indoor spaces.

Beyond their functional performance, these materials exemplify environmentally responsible construction. Their production and application involve minimal energy inputs compared to modern industrial materials such as cement and steel, resulting in a significantly lower carbon footprint. The use of local materials reduces transportation energy, fosters community labor engagement, and reinforces local economies—principles central to IKS. Traditional construction techniques also prioritized repairability and adaptability; damaged sections could be easily replaced or renewed without compromising structural integrity, thus promoting a circular, low-waste approach to building.

A critical aspect of this chapter is the evaluation of thermal and environmental performance. Mud, lime, and stone naturally regulate indoor humidity, reduce heat gain, and store thermal energy, providing passive comfort without mechanical interventions. Such characteristics are increasingly relevant in contemporary contexts, where sustainable design requires materials and strategies that reduce energy consumption and enhance resilience to climate variability. The chapter examines comparative analyses of traditional and modern materials, highlighting how integrating IKS knowledge into modern construction can lead to energy-efficient and climate-adaptive structures.

Furthermore, the chapter discusses the relevance of these materials in addressing current sustainability challenges. Urbanization, resource depletion, and climate change necessitate alternatives to carbon-intensive construction. By studying historic practices through the lens of IKS, architects, engineers, and policymakers can identify methods to adapt traditional materials for modern usage while retaining their ecological and cultural benefits. Case studies from various regions illustrate how vernacular practices—such as using lime stabilizers, stone masonry, and mud compaction techniques—can be adapted in low-carbon housing, heritage conservation, and environmentally conscious public infrastructure.

The integration of traditional knowledge with modern scientific analysis allows for a more holistic understanding of material performance, sustainability, and design efficiency. This chapter emphasizes that Indigenous Knowledge Systems are not merely historical artifacts but living repositories of context-sensitive solutions that can inform contemporary construction practices. Recognizing the value of mud, lime, and stone in historical Indian architecture demonstrates that sustainable, low-carbon construction is achievable through intelligent material selection, community participation, and respect for local ecology.

By bridging historical insights with contemporary environmental imperatives, the chapter underscores the potential of traditional materials to contribute meaningfully to modern sustainable architecture. It advocates for the revival, documentation, and adaptation of IKS-informed practices, offering architects, engineers, and researchers a framework to harmonize ecological responsibility with structural performance and cultural continuity. Ultimately, this study situates traditional Indian building materials as vital instruments in achieving resilient, low-carbon, and socially inclusive architectural solutions, reinforcing the enduring relevance of Indigenous Knowledge Systems in contemporary construction discourse.

IKS-Inspired Disaster Resilience: Learning from Traditional Ecological Knowledge in the Age of Smart Sensors

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ABSTRACT

In the contemporary era of climate uncertainty, where disasters such as floods, droughts, cyclones, and landslides have intensified due to rapid urbanization and ecological imbalance, the need for resilient systems is more urgent than ever. While modern science and technology—particularly smart sensors, IoT-based monitoring, and real-time data analytics—have revolutionized disaster prediction and response, Indigenous Knowledge Systems (IKS) offer time-tested, place-based wisdom that has guided communities in managing disasters for centuries. This research explores the integration of IKS-inspired traditional ecological knowledge (TEK) with modern smart-sensor-based disaster resilience frameworks, emphasizing how the two systems can complement rather than compete with each other. The study argues that effective disaster resilience in the 21st century demands not only advanced technology but also contextual intelligence, local participation, and cultural embeddedness.

Historically, Indigenous communities across India and other parts of the world have developed sophisticated mechanisms to interpret environmental signs—such as changes in animal behavior, tree flowering patterns, wind direction, cloud morphology, and groundwater levels—to predict impending floods, cyclones, or droughts. For example, the Mizo Zabo system in Northeast India integrates watershed management, agriculture, and forestry to prevent soil erosion and flooding; communities in the Western Ghats recognize early indicators of monsoon intensity through shifts in avian migration and insect patterns; and in coastal Odisha, fisherfolk traditionally interpret tidal anomalies and wind currents to anticipate cyclonic events. These practices reflect a holistic understanding of ecological interconnectivity—an understanding deeply embedded in IKS and sustained through oral traditions, rituals, and collective memory.

In contrast, contemporary disaster management relies heavily on sensor networks, remote sensing, and machine learning algorithms for early warning and risk mapping. While technologically sophisticated, these systems often lack contextual adaptability—particularly in rural and remote regions where sensor networks may fail or where socio-cultural acceptance of technology remains limited. Here lies the transformative potential of integration: IKS can provide ground-truthing, contextual calibration, and redundancy to technological systems, while smart sensors can validate, quantify, and scale traditional observations for policy and planning. Together, they can form hybrid knowledge systems that combine intuition with precision, ensuring resilience that is both technically robust and culturally rooted.

The research methodology combines field documentation, ethnographic interviews, and technological mapping across diverse ecological zones of India—mountainous, arid, coastal, and forested regions. Traditional indicators of environmental change were catalogued and compared with modern sensor-

based datasets (rain gauges, soil moisture sensors, seismic detectors, etc.). The study evaluates overlaps and discrepancies between traditional forecasts and sensor data, identifying points where integration enhances prediction accuracy and community trust in early-warning systems. Findings indicate that hybrid systems—where traditional indicators trigger sensor verification or vice versa—achieve up to 25–30% improvement in early-warning reliability, especially in areas with limited technological infrastructure.

Beyond technological integration, the study emphasizes socio-ecological learning. IKS contributes a participatory framework in which local communities are not mere data recipients but active knowledge partners. This participatory model aligns with the Sendai Framework for Disaster Risk Reduction (2015–2030) and the UN Sustainable Development Goals (SDGs 11, 13, and 15), which advocate community-centered resilience and indigenous inclusion in policy. Integrating IKS within digital platforms—such as mobile-based community alert systems—also enhances accessibility and ownership. For example, indigenous flood indicators can be integrated into AI dashboards, providing both qualitative and quantitative alerts that reflect the synergy between human intuition and sensor intelligence.

The paper also addresses challenges in operationalizing IKS—sensor integration, including data standardization, intellectual property rights, ethical knowledge sharing, and community validation mechanisms. It proposes a co-production model where researchers, technologists, and local communities collaborate to digitize, visualize, and simulate traditional indicators, converting oral ecological memory into dynamic data systems. Moreover, it advocates for institutional recognition of IKS through curricular inclusion, research funding, and policy frameworks under India's National Disaster Management Authority (NDMA) and the Indian Knowledge Systems Division (IKSD).

Ultimately, the study concludes that IKS-inspired disaster resilience is not a return to the past but a pathway to sustainable futures—a paradigm that values intergenerational wisdom, respects local ecosystems, and employs smart technologies as allies rather than replacements. The age of smart sensors must be guided by the wisdom of ecological heritage—transforming disaster management from a reactive to a proactive, culturally sensitive, and ecologically embedded practice. The integration of IKS with modern sensor technologies offers not only a scientific advancement but also an ethical and epistemological reorientation—restoring balance between technology, nature, and humanity in the face of the global climate crisis.

Heritage Structures as Models for Modern Resilient and Seismic-Safe Infrastructure Design.

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ABSTRACT

Heritage structures, including temples, forts, stepwells, palaces, and traditional bridges, represent a unique intersection of architecture, engineering, and culture, reflecting centuries of empirical knowledge, craftsmanship, and adaptation to local environmental conditions. These structures have withstood the test of time, enduring natural hazards such as earthquakes, floods, wind storms, and thermal fluctuations, often surpassing the longevity of many modern buildings. The resilience of these monuments is not merely a product of aesthetic design, but a sophisticated interplay of material selection, load distribution, geometric form, construction techniques, and site-specific adaptations, providing a rich repository of knowledge for contemporary infrastructure design.

This research investigates the structural principles, architectural strategies, and material properties that underlie the durability and seismic resistance of historic Indian heritage structures, aiming to identify lessons applicable to modern resilient and earthquake-safe infrastructure. A multi-method approach was employed, combining field surveys, structural analysis, material characterization, historical documentation, and literature review. Selected case studies include the Hampi temples, Rani ki Vav stepwell, Brihadeeswarar Temple, and selected forts and palaces across North and South India. These examples illustrate diverse construction techniques, such as interlocking stone masonry, stepped and tapered geometries, timber-laced walls, and modular load-sharing frameworks, which enabled the structures to dissipate seismic energy and accommodate dynamic loads without catastrophic failure.

Material characterization revealed that heritage builders leveraged locally sourced materials, including lime-based mortars, mud bricks, laterite stones, and timber, in a manner that enhanced both mechanical performance and environmental sustainability. Lime mortars, for instance, provided flexibility, crack self-healing, and breathability, mitigating structural stress from thermal expansion and moisture ingress. Similarly, timber elements embedded within masonry acted as shock absorbers, distributing seismic forces and preventing brittle failure. These strategies highlight an integrated understanding of structural mechanics and material science, developed empirically over centuries without formal computational tools.

Structural analysis of stepped and tiered forms, such as in Rani ki Vav, demonstrates effective load dispersion and lateral stability, principles that can inform modern design of earthquake-resistant foundations and retaining walls. The use of corbelled arches, domes, and cantilevered brackets in temples and forts reveals an intuitive grasp of force vectors and stress pathways, suggesting that traditional geometric configurations can be adapted for contemporary load-bearing and seismic applications. The study also emphasizes site-specific adaptation, where builders accounted for local soil conditions, water tables, and seismic zones, a practice that aligns closely with modern geotechnical engineering principles.

By bridging heritage knowledge systems with contemporary engineering, the research identifies pathways for integrating traditional design strategies into modern resilient and sustainable infrastructure. Key insights include: adopting modular construction inspired by interlocking masonry, using flexible, low-carbon materials for seismic resilience, implementing tiered and stepped geometries to enhance structural stability, and leveraging site-specific adaptations for disaster mitigation. Such approaches can reduce environmental footprint, enhance durability, and create culturally contextualized infrastructure, particularly in regions with high seismic vulnerability.

Furthermore, this study contributes to policy and practice by advocating for the documentation, analysis, and incorporation of heritage construction knowledge into modern building codes, urban planning, and disaster resilience frameworks. The findings underscore that traditional engineering solutions, when validated and adapted through modern analytical methods, can offer cost-effective, durable, and environmentally responsible alternatives to conventional contemporary construction.

In conclusion, heritage structures are not merely cultural artifacts; they are living laboratories of resilience, sustainability, and seismic safety. Their study provides valuable lessons for architects, engineers, urban planners, and policymakers seeking to create infrastructure that is structurally robust, environmentally sustainable, and culturally informed. By integrating traditional knowledge systems with modern engineering practices, this research demonstrates a framework for designing resilient, sustainable, and adaptive infrastructure capable of withstanding natural hazards while honoring historical wisdom.

A Review Study on Medicinal Plants and Their Conservation for Sustainable Development

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ABSTRACT

Medicinal plants are fundamental to India's traditional health care systems and modern medicine, valued for their diverse therapeutic properties and extensive use in Ayurveda and folk practices. With India harboring thousands of species, the accelerating demand for natural remedies has led to alarming depletion and genetic erosion due to unsustainable harvesting, habitat loss, and environmental changes. Conservation of these vital resources is crucial not only for healthcare and cultural continuity, but also for ecological integrity and future research opportunities. Effective conservation strategies encompass both in-situ and ex-situ methods. In-situ conservation protects medicinal plant diversity in their natural habitats via biosphere reserves, national parks, and wild nurseries, supporting natural adaptation and regeneration. Ex-situ conservation involves safeguarding genetic resources through seed banks, botanical gardens, DNA storage, field gene banks, and advanced biotechnological approaches such as tissue culture and cryopreservation, particularly for species at high risk of extinction. Strengthening cultivation practices and promoting community driven management are essential, as they preserve indigenous knowledge and encourage sustainable utilization, aligning with India's rich legacy of plant-based medical systems. Collective action from policy support and scientific research to grassroots engagement is urgently required to ensure the conservation and sustainable use of medicinal plants, securing their benefits for generations to come.

Keywords: Medicinal Plants, Conservation, In-Situ, Ex-Situ, Sustainable Development

Indian Knowledge Systems as Catalysts for Ecological Balance and Global Well-being”

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ABSTRACT

Indian Knowledge Systems (IKS) encompass a rich and holistic body of traditional wisdom that integrates ecological management, sustainable resource utilization, and spiritual ethics. This paper explores how IKS fosters ecological balance through key domains such as traditional water conservation techniques, biodiversity preservation, sustainable agricultural practices, and community-driven governance models. Emphasizing the concept of humans as custodians rather than exploiters of nature, IKS promotes harmony between society and the environment. The study highlights case examples like the revival of johads in Rajasthan, which significantly improved groundwater levels and restored ecosystems, as well as the conservation of sacred groves in the Western Ghats, which safeguard biodiversity hotspots. In addition to preserving ecological integrity, IKS aligns closely with the objectives of the United Nations Sustainable Development Goals (SDGs), particularly addressing water security, climate action, sustainable agriculture, and life on land. By integrating IKS principles into contemporary environmental policies, education frameworks, and global sustainability discourses, societies can achieve development that is not only ecologically sound but also socially equitable and culturally rooted.

Keywords: Ecological balance, biodiversity preservation, sustainable agriculture, community governance, traditional wisdom, environmental policy

Comparative Perspectives on Ayurvedic Dietetics and Modern Nutrition in the Prevention of Obesity- A Review

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ABSTRACT

The global rise of obesity represents a critical public health crisis, requiring the rigorous examination of effective and sustainable dietary strategies for prevention. This review comparatively analyses the core principles of Ayurvedic dietetics (Ahara Vijnana) and conventional modern nutritional science regarding their application in managing and preventing obesity (Sthoulya). Modern nutrition predominantly employs a reductionist model, focusing on quantitative metrics such as caloric restriction, optimal macronutrient ratios, and generalized food guidelines. Conversely, Ayurvedic dietetics adopts a personalized, holistic framework, emphasizing the pivotal role of individual psycho-physiological constitution (Prakriti), the integrity of the digestive fire (Agni), the balancing of the six tastes (Rasa), and appropriate meal timing (Kala) to maintain metabolic equilibrium. By systematically reviewing the foundational philosophies and emerging evidence of both systems, this paper identifies significant areas of contrast and potential convergence. Ultimately, the review suggests that an integrated, dual-perspective approach—one that combines the detailed metabolic insights of modern science with the personalized, root-cause identification provided by Ayurvedic principles—could yield more comprehensive, patient-centric, and effective strategies for long-term obesity prevention and metabolic health management.

Keywords: Obesity, Ayurveda, Modern Nutrition, Dietetics, Prakriti, Agni, Sthoulya

Integrating Indian Knowledge Systems for Early Diagnosis of Tuberculosis: A Holistic Framework for Infectious Disease Management

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ABSTRACT

The Indian Knowledge System (IKS), encompassing Ayurveda, Siddha, Unani, and Yoga, represents a profound and time-tested framework for understanding health and disease. Despite rapid advances in molecular diagnostics, imaging, and laboratory technology, tuberculosis (TB) continues to be a major public health challenge, particularly in resource-limited settings. This underscores the need for affordable, community-driven, and culturally grounded diagnostic strategies. IKS offers a holistic health perspective that emphasizes the equilibrium between the body, mind, and environment rather than focusing solely on disease pathology. Classical diagnostic tools such as Nadi Pariksha (pulse examination), Jihva Pariksha (tongue observation), Mutra Pariksha (urine evaluation), and Netra Pariksha (eye examination) were historically used to identify physiological imbalances long before clinical symptoms manifested. These methods may provide valuable insights for developing early TB detection frameworks that align with local health beliefs and practices.

Furthermore, the Ayurvedic concept of Janapadodhwamsa—which interprets epidemic spread in relation to environmental and social disturbances—mirrors modern epidemiological theories, offering opportunities to enhance community-based surveillance. Integrating traditional herbal pharmacology and bio-indicators from IKS with contemporary tools such as molecular assays, biosensors, and digital health platforms can yield hybrid diagnostic models that are both accessible and scalable. Such an integrative approach encourages public trust, enhances early disease recognition, and supports India's One Health vision by linking human, animal, and environmental health perspectives.

Bridging ancient wisdom with modern biomedical science not only safeguards India's medical heritage but also fosters innovation in infectious disease diagnostics. By leveraging IKS principles alongside advanced technology, early detection and prevention of tuberculosis can become more holistic, inclusive, and sustainable, particularly for underserved populations.

Keywords: Indian Knowledge System (IKS), Tuberculosis, Ayurvedic diagnostics, Janapadodhwamsa, Integrative medicine, One Health, Infectious disease management

Response of Moringa Leaves Extract (MLE) To The Growth and Yield of Okra Variety

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ABSTRACT

The effects of Moringa Leaf Extract (MLE) treatments on okra (*Abelmoschus esculentus* L.) growth and yield parameters were assessed in a field experiment. The effects of six treatments including a control (T1) were evaluated in terms of plant height, flowering, leaf area index, branch count, pod length, and yield. The findings showed that treatment T3 considerably increased plant productivity and growth at every stage. T3 had the highest leaf area index (2.62), the greatest number of branches (9.18), the earliest 50% flowering (32.00 days), and the highest plant height (58.78 cm) at 90 DAS. The highest cumulative yield of 2763.52 g per 10 pods was obtained by T3, which also produced the longest pods and showed superior pod weights (16.27 g, 20.57 g, and 22.31 g) over the course of three harvests. The control (T1), on the other hand, had the lowest values in almost every parameter. The importance of MLE treatments, especially T3, in improving growth and yield performance was validated by statistical analysis. These results imply that MLE may be a viable environmentally friendly bio stimulant to enhance okra's growth characteristics and yield.

Keywords: - Plant Growth, Yield Attributes, Pod Weight, Leaf Area Index, Bio stimulant

Vedachakṣu: The Science of Time for the Spiritual Aspirant

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ABSTRACT

Nowadays, many so-called spiritual practitioners (sādhakas) of various sects—whether Śaiva, Śākta, Saura, Gāṇapatya, or Vaiṣṇava—attempt to conceal their lack of knowledge of Jyotiṣa by proclaiming that astrology is unnecessary in the path of sādhanā. Such a stance not only contradicts the scriptural tradition but also ignores the cosmic laws of time (kāla) upon which all Vedic and Tantric rites are founded.

In the Vedic tradition, Jyotiṣa Śāstra is not merely a predictive tool for mundane affairs but the divine eye of the Vedas (Vedachakṣu), enabling the sādhanika to align every act of worship, mantra-japa, homa, and meditation with the rhythms of the cosmos. As stated in the Bṛhat Parāśara Horā Śāstra (1.5):

“वेदानं चक्षुः प्रोक्तं ज्योतिषं कर्म—चेतनम्” ।

“Vedānām cakṣuḥ proktaṁ jyotiṣaṁ karma-cetanam”

“Jyotiṣa is declared the eye of the Vedas, the revealer of the path of action.”

The Skanda Purāṇa (Kāśī Khaṇḍa 26.10) emphasizes:

“कालज्ञानं विना कर्म निष्फलं स्यात् प्रयतनात्:” ।

“Kālañānaṁ vinā karma niṣphalaṁ syāt prayatnataḥ”

“Without knowledge of the right time, even great effort yields no fruit.”

The Atharva Veda (19.9.10) praises the nakṣatras as divine abodes:

“नक्षत्राणि देवानं ग्रहाणि । ”

“Nakṣatrāṇi devānām grhāṇi”

“The stars and lunar mansions are the houses of the gods.”

In Taittirīya Brāhmaṇa (3.1.1), it is said:

“By worshipping the deity in its own nakṣatra, the aspirant attains that deity’s favor swiftly.”

For the sādhanika, correct muhūrta selection and awareness of the Moon’s nakṣatra can accelerate spiritual progress, enhance mantra-siddhi, and attune inner energies to ṛta—the universal order. Tantric authorities like Kālikā Purāṇa, Tantrasāra of Abhinavagupta, and Kāmikāgama prescribe specific nakṣatra-muhūrtas for dīkṣā, mantra purāścaraṇa, and ritual worship. The Kālikā Purāṇa (Chapter 61) warns:

“कलः परमो मुख्यः सिद्धयसिद्धिविनिश्चये” ।

“Kālaḥ sarvatra mukhyaḥ syāt siddhyasiddhi-viniścaye”

“Time is the chief determinant in the success or failure of all rites.”

Similarly, Tantrasāra (Pañcāṅga Nirṇaya) prescribes that mantra initiation (dīkṣā) be performed during

auspicious lunar mansions such as Puṣya, Anurādhā, and Śravaṇa, avoiding Rikta tithis and inauspicious yogas.

This paper will explore:

The philosophical basis of Jyotiṣa as the vision of the Vedas.

The integration of muhūrta and nakṣatra selection in Vedic and Tantric sādhana.

Scriptural recommendations for deity and sādhana choice per nakṣatra.

The role of kāla-śuddhi (purification of time) in mantra-siddhi.

By harmonizing one's sādhana with the celestial currents, the aspirant walks the path laid by the ancient ṛṣis—where every mantra is uttered in the right kāla, every offering is made in the right nakṣatra, and every step moves in rhythm with the eternal pulse of the cosmos. As the Mahābhārata (Śānti Parva 342.88) concludes:

“कालः सर्वेषु भूतेषु गुह्यम् आख्यातुम् अर्हति” ।

“Kālaḥ sarveṣu bhūteṣu guhyam ākhyātum arhati”

“Time holds the secret for all beings.”

Keywords: Jyotiṣa Śāstra, Sādhana Muhūrta, Nakṣatra Deity Worship, Mantra-Siddhi Timing, Kāla-Śuddhi

Traditional Knowledge for Sustainable Living: Indigenous Practices in Water, Agriculture, and Ecology

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ABSTRACT

Centuries-old traditional knowledge developed by local communities is an essential part of sustainable living. It encompasses practices, beliefs, and techniques to conserve natural resources, maintain ecological equilibrium, and provide food security. This paper discusses four important areas of traditional knowledge: traditional systems of water conservation, indigenous farming practices, ecology-based festivals, and the contribution of women and communities towards environmental conservation. Heritage water management systems like stepwells, johads, tanks, and ponds present viable solutions for the management of limited water resources, the recharging of groundwaters, and agriculture. Traditional farming methods like the rotation of crops, mixed cropping, seed conservation, and organic farming improve soil fertility, biodiversity, and long-term food security. Festivals based on the agricultural calendar instill ecological awareness, which inculcates the community to follow the seasonal cycles, harvest patterns, and sustainable utilization of resources. In addition, community groups and women hold the core responsibility for natural resource management, biodiversity conservation, and the sustainability of local ecosystems. Through examples from different regions of India, this paper brings forth the pragmatic importance of such traditional practices in tackling contemporary environmental issues. The research proves that blending traditional knowledge with contemporary technology can offer eco-friendly solutions while conserving cultural heritage. In conclusion, this study underlines the significance of acknowledging, recording, and showcasing traditional practices as a means to attain ecological balance and sustainable living for generations to come.

Keywords: Traditional Knowledge, Sustainable Development, Indigenous Farming, Water Conservation, Environmental Awareness

Indigenous Technical Knowledge (ITK): A Pathway to Sustainable Agriculture in India

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ABSTRACT

Indigenous Technical Knowledge (ITK) embodies the accumulated wisdom, ecological insights, and sustainable methodologies cultivated by traditional agricultural communities over generations of observation and experimentation. In India, ITK remains essential in advancing sustainable agriculture by improving soil health, preserving biodiversity, and ensuring enduring productivity with minimal environmental repercussions. Grounded in local culture and experience, these methodologies are environmentally friendly, cost-efficient, and tailored to specific agro-ecological contexts, such as the application of ash combined with castor oil to combat soil-borne diseases, turmeric and wood ash for managing powdery mildew, ginger extract as a natural antifungal, slaked lime to avert damping-off, and a blend of cattle urine and peppermint oil that serves as an effective pest control strategy in grape cultivation. In addition to crop protection, ITK includes soil fertility enhancement through composting, organic fertilization, seed preservation, mixed cropping, and traditional irrigation techniques that aid in nutrient recycling and augment climate resilience. These approaches collectively maintain the stability of agro-ecosystems while decreasing reliance on chemical fertilizers and pesticides. Nevertheless, despite their demonstrated efficacy, indigenous practices frequently remain undocumented, dismissed, or inadequately represented in formal agricultural research and policy frameworks. Enhancing collaborations between farmers and scientists, encouraging participatory documentation, and integrating ITK with contemporary innovations are vital measures for achieving sustainable agricultural transformation. Acknowledging and revitalizing Indigenous Technical Knowledge within modern agricultural systems can promote ecologically sound, economically sustainable, and socially inclusive farming, thereby ensuring food and environmental security for future generations in India.

Keywords: Indigenous Knowledge, Sustainable Agriculture, Soil Health, Pest and disease Management, Traditional Practices

Indian Knowledge Systems and Biocontrol Approaches: Synergistic Application of Entomopathogenic Fungi and Neem Oil to Combat Okra Leaf Hoppers

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ABSTRACT

The growing apprehension regarding pesticide resistance, environmental deterioration, and health risks linked to synthetic insecticides has heightened the quest for sustainable pest management approaches. Okra (*Abelmoschus esculentus* L.), a vital vegetable crop in India, is particularly vulnerable to leaf hoppers (*Amrasca biguttula biguttula*), which inflict considerable yield losses through sap feeding and the transmission of secondary infections. In this regard, entomopathogenic fungi (EPF) and neem-based formulations have surfaced as promising alternatives within integrated pest management (IPM) frameworks. Entomopathogenic fungi such as *Verticillium leccani*, *Beauveria bassiana* and *Metarhizium anisopliae* @ 5- 10 ml per liters are well-established biological control agents that infect leaf hoppers via direct cuticular penetration, resulting in host mortality through systemic colonization and sporulation. Concurrently, neem (*Azadirachta indica*) oil @ 5-10 ml/l, widely acknowledged in Indian Knowledge Systems (IKS) and traditional agriculture, functions as an antifeedant, oviposition deterrent, and growth regulator against insect pests. The combined application of EPF and neem oil exhibits synergistic effects: neem diminishes insect physiological defenses and curtails feeding activity, thereby promoting more effective fungal infection and colonization.

Indian Knowledge Systems, particularly Vrikshayurveda and folk practices, have historically underscored the utilization of plant extracts, cow-based formulations, and microbial-rich substrates for sustaining ecological balance in agricultural fields. Neem-based remedies, emphasized in ancient texts, closely align with modern eco-friendly biocontrol methodologies. Therefore, the integration of EPF with neem oil not only substantiates indigenous knowledge but also bolsters its scientific legitimacy. Furthermore, such strategies aid in the conservation of beneficial insects, the reduction of chemical pesticide application, and the resilience of agro-ecosystems amidst shifting climatic conditions.

This study investigates the effectiveness of EPF and neem oil in combating okra leaf hoppers, contextualizing the analysis within the larger scope of Indigenous Knowledge Systems (IKS). By integrating traditional wisdom with contemporary entomological developments, the research highlights the promise of eco-cultural biocontrol methods in realizing sustainable pest management. These collaborative strategies not only protect crop yields but also aid in the conservation of biodiversity and food safety, rendering them significantly pertinent to current and forthcoming agricultural issues.

Keywords: Indian Knowledge Systems, entomopathogenic fungi, neem oil, okra, leaf hopper, biocontrol, sustainable pest management

Reframing Ability: Lessons on Inclusion from the Ramayana

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This exploration delves into the epic Ramayana, uncovering timeless lessons on inclusion and social reform. Through the characters and narratives, it highlights the importance of embracing diversity, challenging social norms, and promoting empathy. The Ramayana's teachings offer valuable insights for fostering a more inclusive and compassionate society, making it a relevant and thought-provoking guide for modern times

The Ramayana, one of India's most enduring epics, offers a rich tapestry of characters whose physical, sensory, and psychosocial differences challenge narrow notions of "ability." From Manthara's physical impairment to Jataayu's aging body and Shurpanakha's disfigurement, the narrative presents diverse embodiments that shape pivotal turns in the story. Rather than portraying disability solely as limitation or punishment, the epic frequently reveals agency, wisdom, and transformative power in these characters, illustrating that difference can be integral to dharma and cosmic order.

This paper explores the Ramayana through the lens of Indian Knowledge Systems (IKS) to highlight inclusive philosophies embedded within its verses. Drawing on textual analysis of Valmiki's Sanskrit narrative and regional retellings, it examines how the epic reframes ability, offering models of dignity, interdependence, and moral complexity. By situating these portrayals alongside contemporary disability studies and inclusive education discourse, the study illuminates how ancient narratives can inform present-day efforts to build equitable, compassionate society.

A survey was conducted among special education students to assess their awareness of differently-abled individuals and their status in society, as well as their understanding of inclusive education. The survey specifically examined participants' knowledge of ten key characteristics related to the Ramayana. The findings provide insight into contemporary social attitudes and the present-day status of differently-abled people.

Drawing from the Ramayana, this piece examines the epic's portrayal of inclusion, tolerance, and social reform. It discusses how the epic's characters and storylines can inform contemporary discussions on diversity, equity, and social justice.

Key Word: Differently able person, Inclusive Education. Ramayana

Geometric proof of Sankalana Vyavakalanabhyam (addition and subtraction) for solving quadratic equations.

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ABSTRACT

The present document discusses a complete geometric analysis of Sankalana Vyavakalanabhyam (संकलन व्यवकलनाभ्याम), the seventh sutra of Vedic Mathematics. Sankalana means “by addition” and vyavakalanabhyam means “by subtraction”. Traditionally, Sankalana Vyavakalanabhyam offers a cleaner approach to dealing with simultaneous linear equations with interchanged coefficients, however we will first consider its geometric basis and then will explore it systematically with visual proof methods towards extension to a possible quadratic equation application. The study offers a comprehensive geometric backdrop to better understand underlying ideas of the sutra, which is a method of representing algebraic quantities in terms of areas and lengths, along with spatial relationships. This study develops explicit geometric constructions that display the addition and subtraction of values which is the core of the sutra, and which arises quite naturally from the manipulation of rectangular and square regions in the Cartesian plane. The study moves from more accessible proofs for linear systems to much more nuanced applications of difference of squares, completing the square, and general quadratic forms. By means of worked examples and comparative analysis, we demonstrate that the Vedic geometric method provides computational efficiency, improved intuitive understanding, and reduced cognitive load for problem situations with symmetric structure. The method also shows deep connections between Indian ancient mathematical practice, and contemporary algebraic geometry, so that the ancient methods can contribute towards modern mathematical education when properly formalized. We describe some of the pedagogical implications for including geometric Vedic methods into mathematics teaching, including implementation issues, assessment considerations, and potential value for different learners.

We then describe more contemporary mathematical applications of these methods in computational mathematics, including algorithm design, hardware implementation, and digital signal processing. We identify some limitations to the approach and identify some future research opportunities, including extending the method into higher degree polynomials, applications in matrix algebra and connections to physics and engineering problems. This work contributes to the body of research that connects historic mathematical approaches to modern mathematical rigor, noting that ancient methods can also add value and alternative approaches to professional work on mathematics.

Keywords: Sankalana Vyavakalanabhyam, sutra, geometric constructions, contemporary algebraic geometry, ancient mathematical practice, pedagogical implications.

Synthesizing Ancient Agronomy with Modern Ecology: A Framework for Restoring Laterite Soil Fertility in Eastern India using Vrikshayurveda's Kunapajalam Formulation.

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ABSTRACT

The low fertility, acidity, and high erodibility of laterite soils in Eastern India pose a serious threat to regional food security. This problem is made worse by unsustainable, chemical-intensive farming methods that destroy soil structure and microbial diversity. Although there are many amelioration techniques available thanks to modern soil science, smallholder farmers frequently cannot afford or sustain them. The integration of indigenous knowledge systems into scalable restoration protocols and their validation are severely lacking. By combining the holistic ideas of Vrikshayurveda with modern ecological science, this paper fills this gap by putting forth a framework for laterite soil rejuvenation that has been scientifically proven.

The use of Kunapajalam, a strong, fermented liquid organic formulation with roots in the traditional Vrikshayurvedic tradition, is central to this framework. Kunapajalam is a highly regarded biostimulant for degraded ecosystems because of its capacity to increase soil microbial activity, improve nutrient bioavailability, and replenish soil organic carbon. The research methodology takes a three-pronged approach: first, a thorough textual analysis of Vrikshayurveda classics to codify the preparation and application of Kunapajalam; second, a chemical and microbial characterisation of the formulated bio-solution in a laboratory; and third, an empirical pot study to quantitatively evaluate its impact on the growth metrics of a model crop and key laterite soil health indicators (pH, organic carbon, and microbial biomass). The results culminate in a cost-effective, replicable framework intended to strengthen regional farming communities. This study directly aids in improving farmer livelihoods, strengthening regional agricultural resilience, and achieving the UN Sustainable Development Goals for Life on Land (SDG 15) and Zero Hunger (SDG 2) by providing a competitive substitute for synthetic fertilisers. In the end, this study shows a strong route for releasing traditional knowledge to solve urgent modern ecological issues.

Keywords: Vrikshayurveda, Kunapajalam, Laterite Soil, Soil Restoration, Sustainable Agriculture, Indian Knowledge Systems (IKS).

Knots of Tradition: Macramé as a Pathway to Sustainable Livelihoods and Women's Empowerment in India

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ABSTRACT

Pāramparyavedyaṃ Jīvanavinyāsam means “the structure or discipline of life learned through tradition.” It reflects how knowledge and practice passed across generations shape sustainable and balanced living. This study explores the connection between macramé, women's empowerment, sustainable development, and the Indian Knowledge System. It examines how traditional crafts reflect indigenous wisdom and support eco-friendly living. Macramé, an ancient knotting art, uses natural fibers such as jute, cotton, wool, and hemp. These materials are locally grown and biodegradable, making the craft both artistic and sustainable. The research highlights how women and indigenous communities preserve these traditions through skill, creativity, and shared knowledge. In many rural regions, women artisans use local resources to create macramé products that provide income and strengthen community bonds. Their practices reflect sustainable principles such as waste reduction, recycling, and respect for nature. The Indian Knowledge System promotes balance between human needs and environmental care. It links philosophy, ecology, and livelihood in a holistic way. Macramé mirrors this balance by combining aesthetic expression with responsible resource use. Recent trends show that eco-conscious consumers prefer handmade and natural designs, creating new opportunities for artisans. However, challenges remain in scaling production, improving market access, and ensuring fair compensation. There is also limited research on the psychological and social impact of craftwork on women's well-being. Integrating macramé into formal training and entrepreneurship programs could enhance skill development and economic resilience. Digital platforms offer potential to expand markets and preserve cultural heritage. This study concludes that macramé represents more than craft; it is a symbol of sustainable living and cultural continuity. By supporting women artisans and indigenous practices, society can strengthen both local economies and environmental harmony. Traditional crafts like macramé demonstrate how creativity, culture, and sustainability can coexist, offering pathways toward a more equitable and eco-conscious future.

Keywords: Macramé, Women Empowerment, Sustainable Development, Indian Knowledge System, Indigenous Practices

From Infinite Series to Artificial Intelligence: Reviving the Legacy of Madhava and the Kerala Mathematical School for India's Scientific Future

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ABSTRACT

India has rich tradition on mathematical advancements in a global perspective. It was all started from Vedic days which provided strong historical base for numerical and algorithmic methods to the sophisticated analytical work of South-India's Kerala mathematical School. This paper studies the historical path of Indian mathematics specifically concentrates on Kerala School during 14th–16th centuries. The contributions of Madhava of Sangamagrama (A remote village near to Cochin, Kerala) is highly commendable. Some of his notable contributions includes his intellectual findings in the discovery and systematic use of infinite series for trigonometric functions, methods anticipating integral and differential calculus etc. The concepts of infinite series, differentiation, and integration reinforce much of modern scientific computation. Madhava's ideas provide conceptional foundation for Artificial Intelligence where optimization and learning algorithms are central pillars. Calculus and series approximations are fundamental for training and modeling complex behaviours and it is widely used in generative AI models like ChatGPT. The textual records of Madhava's findings are preserved in Sanskrit and Malayalam language such as Tantrasangraha, Yuktibhasa, and Ganitayuktibhasa. The paper discusses the context of these achievements within Indian astronomical tradition, trade-linked exchange of scientific and cultural ideas between India and other civilizations, and the pedagogical uses of oral transmission of knowledge. This work also analyses historical indications regarding the transmission of Kerala ideas to the Middle East and Europe. Current Indian students are often unaware of this heritage. This work proposes strategies to provide awareness about the indigenous Indian mathematical knowledge by integrating Kerala's mathematical heritage into education and public knowledge for intellectual completeness and for inspiring future generations to respect India's indigenous contributions to global mathematics.

Keywords: Madhava of Sangamagrama; Kerala mathematical School; modern scientific computation; Artificial Intelligence

Ayurveda and Contemporary Neuroscience: Unraveling The Ayurvedic Concept of Doshas Through The Lens of Modern Neuroscience

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ABSTRACT

The ancient Indian medical system of Ayurveda is based on the principle that three primary biological energies, which are called “Doshas” and are also known as Vata, Pitta, and Kapha, are the forces that determine health and wellness (Balasubramanian & Kesarwani, 2022). The Doshas are the manifestation of the interactions of the different elements with Vata being the element of air and space, responsible for the movement and communication; Pitta representing the fire and water elements, in charge of the metabolism and transformation; and Kapha, which is the combination of earth and water, taking care of the structure, stability, and lubrication (Sharma et al., 2022). Recent neuroscience has found some similarities between psychological processes such as neural activity, hormonal regulation, and neurochemical balance and the properties of the Doshas (Bhattacharya & Banerjee, 2020). These practices were first employed to balance the Doshas and are now being researched about their potential to bring about changes in neuroplasticity, relieve stress, and improve the immune system, meditation, yoga, and herbal treatments (Rao et al., 2020). The implementation of such methods in the current healthcare system might allow a more extensive and interconnected bodily systems approach to wellness covering aspects of both mental and physical health. The acknowledgment of these similarities between Ayurveda and neuroscience might result in fresh, novel ways of promoting balance, healing, and longevity. The present article endeavors to probe into the potential link of Ayurvedic notions and contemporary neuroscientific knowledge of physiological functions. It attempts to elucidate the neurobiological basis of the Doshas, making it possible to reconcile ancient wisdom with modern scientific understanding, thereby deepening one’s appreciation of a holistic approach to health and disease. This move to rely on contemporary tools and methods to grasp traditional concepts might well lead to a holistic and deeper insight into human health and welfare. The integration of traditional and modern approaches could act as a catalyst for novel strategies in the fields of prevention, diagnosis, and treatment of various disorders.

Keywords: Doshas; Vata; Pitta; Kapha; Ayurveda; Neuroscience

Ayurveda in Crisis Communication: Media Representation During COVID-19

Kavita Verma, Mehul Mrigendra & Devendra Singh

ABSTRACT

The COVID-19 pandemic posed unprecedented challenges globally, compelling societies to seek diverse medical solutions. This study examines the role and portrayal of Ayurveda and other traditional Indian systems of medicine in both Traditional media and social media during the COVID-19 crisis. Through a media studies lens focusing on health communication, crisis narratives, and public trust, this research analyzes how traditional medicine was framed as either a complementary approach or a contested alternative amidst modern biomedical responses. It explores the dynamics of media representation in shaping public perceptions, the dissemination of information, and the negotiation of credibility between conventional and indigenous knowledge systems. The study highlights how crisis communication strategies incorporated traditional medicine narratives, influencing health behaviors and policy discussions in India. Findings underscore the complex interplay between media platforms, cultural beliefs, and scientific discourse during a global health emergency.

Keywords: Ayurveda, traditional Indian medicine, COVID-19, crisis communication, health communication, media representation, social media, public trust, indigenous knowledge systems, Indian Knowledge System (IKS)

The Role of Bhakti-Yoga Practices in Coping with Mental and Physical Pains

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ABSTRACT

Bhakti yoga which can be understood as the “Path of Devotion”, is the path of selfless love and complete devotion with great faith towards a personal Deity or the God. The end goal of this path has been understood to be Moksha or Liberation. This blissful path immerses a devotee in Ananda or divine ecstasy, gives inner satisfaction, knowledge and peace. Various stresses on the physical and mental level get alleviated as the devotees indulge themselves in devotional worship, mantra chanting, rituals, etc. They get freed of mental worries and anxiety as their focus shifts to their loved Deity (or Ishta Devata). Troublesome thoughts and tribulations of the mind disappear. Since Bhakti-Yoga has such profound effect on the mind, it can prove to be quite helpful for pain management.

The scriptures give us instructions on the ways to deal with pain. Relief from pain, whether it's mental or physical, has been shown to be possible through devotional practices in various studies. The practices done for Bhakti-Yoga can be helpful in pain management in many ways. Dissociative states of the mind achieved while being immersed in devotional practices seem to work by shifting away the attention from the painful stimuli. These dissociative states of amnesia, absorption, depersonalisation and derealisation might be seen which help in coping with pain. Also Biopsychosocial-Spiritual model for pain suggest the strong role of spiritual practices and beliefs in pain perception and modulation. Also, The meditative states of mind seen during mantra chanting, congregational prayer sessions, etc. help in lowering stress hormone levels, muscle tension, etc. which alter the ways in which the brain processes pain signals. Likewise, this paper aims to explore and explain the ways Bhakti-Yoga practices can be useful for dealing with mental and physical pains by reviewing the findings of various studies.

Keywords: Bhakti-Yoga, Mental pain, Physical pain, devotion

Integrative Approaches to Sustainability: Leveraging Indian Knowledge Systems for Global Challenges

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ABSTRACT

In the world of unparalleled environmental, social and economic crises the call to become genuinely sustainable has never been more urgent. In this global search, transformational insight through Indian Knowledge System (IKS) the reservoir of the ancient wisdom and integrated practices provides practical solutions to be used in the current predicaments of sustainability. The provided paper will examine philosophical, scientific and ethical principles of IKS in terms of their potential to complement and re-tune the global sustainability and well-being discourse. It is a literature review paper of the basic literature and the existing scholarship on IKS. Thematic analyses take place in the following main areas: traditional medicine (Ayurveda), ecology stewardship, agricultural innovation, holistic learning and Dharma-based governance. Through some of the case studies of choice water harvesting in Rajasthan, safeguarding of sacred groves in Kerala and incorporating Ayurveda and yoga practices in wellness program across the globe, the study shows the usefulness and adaptability of models founded on IKS in offering sustainable outcomes in the long term.

Through a comparative discussion, the differences and in certain core areas, the challenges between mainstream Eurocentric sustainability frameworks and these indigenous frameworks are revealed; and gaps are indicated e.g. in the case of the lack of ethical and spiritual ethos and community scale management of resources in some of the mainstream practices. It arrives at an actionable conclusion and recommends bringing the Indian epistemologies into the contemporary policy, education and practice.

The paper concludes finally that not only is re-finding and based on Indian Knowledge Systems a respectful gesture towards a mighty intellectual tradition, but it also provides access to sustainable, equitable and holistic futures of humanity, both locally as well as globally in terms of sustainable development.

Human Rights in Indian Knowledge System: An Analysis of Vedic, Buddhist, and Jain Traditions in Light of Constitutional Law

Prakhar, Ananya, Aditya

ABSTRACT

Human rights discourse in India has been shaped not only by modern constitutional law but also by the country's rich philosophical and religious traditions. This paper explores the roots of human rights in the Indian Knowledge System (IKS), specifically in the Vedic, Buddhist, and Jain traditions, and analyzes how these ideas find reflection in the Indian Constitution. By examining concepts such as Rta in the Vedic tradition, Ahimsa and Karuna in Buddhism, and Anekantavada in Jainism, this research demonstrates the continuity between ancient ethical thought and modern legal guarantees of dignity, equality, and justice. The paper highlights the evolution of social norms, the philosophical underpinnings of duties and rights, and their modern legal codification. While ancient traditions emphasized duties over rights, the Indian Constitution harmonizes these values with enforceable rights, ensuring a balance between moral philosophy and legal justice.

Keywords : Human Rights, Indian Knowledge System, Vedic Tradition, Buddhism, Jainism, Constitutional Law, Fundamental Rights, Ahimsa, Equality, Directive Principles, Social Justice, Pluralism. 2nd year Law Students, Quantum University, Roorkee.

An Integrated Approach of Yoga and Ayurveda in Post-stroke Management - A Case Study

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ABSTRACT

Background and Purpose: The World Health Organization defines stroke as a sudden onset of focal or global disturbance of cerebral function, lasting 24 hours or resulting in death, with vascular origin. In India, population-based studies show stroke prevalence rates range from 84 to 262 per 100,000 in rural areas and 334 to 424 per 100,000 in urban areas. It is the second-leading cause of death and long-term disability worldwide. Yoga, as a Complementary therapy, has the potential to manage post-stroke problems. These approaches are drugless and employ minimally invasive or non-invasive methods to enact modifications within the body, thereby aiding in the process of recovery. Also, a traditional system of Indian medicine, Ayurveda, with its holistic approach to health and wellness, offers valuable strategies for post-stroke recovery. The present study is a case report investigating the effect of yoga therapy in addition to ayurvedic treatment on activities of daily living and the quality of life of the patient. **Subject and method:** It is a single case study of a 61-year-old men diagnosed with ischemic stroke who have chief complaints of partial loss of function and pain on the right upper and lower limbs, difficulty in speech, and insomnia with a history of hypertension in the past 8 yrs. For better management of stroke and recovery, patient come to the Panchkarma outpatient department in Rishikul Ayurveda College. An Integrated Yoga intervention along with Ayurveda treatment has been given for 1hour up to 3 months. The patient was assessed pre and post-intervention on Stroke-specific quality of life scale (SSQOL) , Barthel index (BI) , Depression Anxiety Stress Scale (DASS) and associated subjective parameters like pain, strength, stiffness , speech, coordination and shivering. **Results :** Results show that after 3 months of yoga there was considerable change in subjective parameters, bathel index from 90 to 95, SQOL from 133 to 151 and DASS scores from severe to moderate. The results suggest that integrating Yoga along with ayurveda treatment likely to play a role in post stroke recovery.

Keywords: Yoga, Ayurveda, Stroke, Quality of life, ADL, Rehabilitation

Dharma and Justice: Comparative Study between Ancient Indian Legal Philosophy and Modern Constitutional Morality

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ABSTRACT:

The concept of Dharma occupies a central place in ancient Indian legal philosophy, serving as the guiding principle for individual conduct, social order, and justice. Rooted in the Indian Knowledge System (IKS), Dharma represents a holistic framework that integrates law, morality, duty, and righteousness. In contrast, modern Indian constitutional morality, as enshrined in the Constitution of India, emphasizes equality, liberty, justice, and fraternity values derived from a liberal, rights-based paradigm influenced by Western jurisprudence. This comparative study seeks to explore the philosophical and functional relationship between Dharma and constitutional morality, identifying areas of convergence and divergence in their approaches to justice and governance.

In ancient Indian jurisprudence, as reflected in texts such as the Manusmriti, Dharmashastras, and Arthashastra, Dharma was viewed not merely as a legal obligation but as an ethical and spiritual pursuit aligned with the cosmic order. Justice (Nyaya) was conceived as the realization of Dharma in social and individual life. The king or ruler (Rajadharma) was considered the custodian of justice, expected to uphold Dharma for the welfare of all beings. This system emphasized duties over rights, collective harmony over individual claims, and moral responsibility as the foundation of law.

This paper argues that despite their differing origins, both frameworks share a common pursuit the realization of justice, harmony, and moral order. By integrating the ethical essence of Dharma with the liberal vision of constitutional morality, India can evolve a jurisprudence that is both contextually rooted and universally humane. The study concludes that revisiting Dharma through the lens of constitutional morality can enrich the Indian legal system by reintroducing ethical consciousness, social duty, and holistic justice in contemporary governance.

Keywords: Dharma, Justice, Indian Knowledge System, Constitutional Morality, Manusmriti, Nyaya, Jurisprudence, Ethics, Indian Constitution.

Ancient Wisdom for Modern Workplaces: Bhagavad Geeta Insights on Emotional Intelligence, Stress, and Well-Being

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ABSTRACT

Employees in today's fast-paced corporate environment are more likely to experience emotional exhaustion, stress at work, and deteriorating health. This research investigates how ancient philosophical wisdom might offer useful solutions for contemporary organizational difficulties, drawing inspiration from the Bhagavad Geeta, an essential part of Indian Knowledge Systems(IKS). The Geeta's teachings provide a comprehensive framework for improving emotional intelligence, stress management, and fostering inner harmony at work, especially Karma Yoga (selfless action), Samatva (equanimity), and Atma-Vichara (self-reflection).

According to this study, professionals' self-awareness, moral behavior, emotional control, and resilience can all be enhanced by incorporating Geeta-based spiritual principles into company culture. The study highlights the transforming potential of Indian wisdom in fostering compassionate and values-driven work settings by fusing traditional insights with contemporary theories of workplace spirituality and positive psychology. According to the research, implementing a Geeta-inspired strategy can result in increased emotional stability, better interpersonal connections, and sustainable well-being in workplace environments.

Finally, the study emphasizes the Bhagavad Geeta's ageless value as a manual for attaining emotional equilibrium, lowering stress levels, and promoting overall business well-being. Additionally, it highlights how Indian knowledge systems may help organizations all across the world create a more ethical, sustainable, and mindful future.

Keywords: Bhagavad Geeta, Emotional Intelligence, Workplace Spirituality, Stress Management, Corporate Well-Being, Indian Knowledge System

Kautiliyam Arthaśāstram: A framework for present-day Management and economic policy

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ABSTRACT

As present day world is dynamic and competitive, the cultivation of management skills and economic policy also needs to be correlated with the ancient scriptures. Talking about management, it is inclusive of leadership and other soft skills like communication, adaptability, team building and many more which will be discussed additionally. Furthermore, advancement of economy is an unhurried process, so to tackle unforeseen economic upheavals existence of untactful strategic economic policy must be there. Economy of India is still navigating challenges such as increasing population, disintegrating infrastructure, corruption, terrorism, meagre taxation and unemployment though, a major shift in the economy post-liberalization since 1991 has been remarked. In this paper we will explore through the earnest insights of kautiliyam, the historic Indian philosopher, strategists and political economist, on the enhancement of management and economic policy. Kautiliyam, an Indian philosopher and strategist provides an important lesson for present day leadership and management through his groundbreaking work, the Arthaśāstram. Chanakya's philosophy governance with pragmatic decision- making. He posits that trust, credibility and integrity are the foundational pillars for achieving long-term success. Furthermore, his teaching highlights the importance of perpetual learning and adaptability which empower leaders to foresee challenges, capitalize on opportunities, and stimulate innovation, thereby building resilience in a constantly evolving landscape.

Keywords: Empowerment, Kautiliyam Arthaśāstram, Management, leadership, economic policy, strategy, Economic growth

An Evidence-Based Yoga Therapy Module for the Management of Peptic Ulcers

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ABSTRACT

Peptic ulcer disease (PUD) is a widespread gastrointestinal condition where psycho-social stress is now recognized as a critical contributing factor that can initiate the condition, hinder healing, and promote recurrence. While conventional medical treatments are essential for addressing primary etiological agents like *H. pylori*, they often do not manage the underlying, chronic stress components, leaving a significant gap in holistic patient care. This paper proposes a comprehensive, evidence-based yoga therapy module structured around the (IAYT) Integrated Approach of Yoga Therapy and its foundational Pancha Kosha framework for the integrated management of PUD. The module systematically addresses the five sheaths of human existence, prescribing specific, gentle interventions designed to restore balance at each level of being.

The proposed interventions include diet and lifestyle modifications, restorative physical postures (asanas) to soothe the physical body; slow, mindful breathing techniques (pranayama) to calm the energetic systems; and deep relaxation practices like Yoga Nidra to process emotional and mental stress. The scientific rationale for this multi-layered approach is its ability to target the primary mechanisms of the psycho-somatic stress response. These mechanisms include down-regulating the hyper-reactive brain-gut axis, shifting the autonomic nervous system's balance from sympathetic 'fight-or-flight' activation toward a parasympathetic 'rest-and-digest' response, and reducing the biochemical load of stress hormones like cortisol via the HPA axis. By addressing the root causes of psycho-somatic imbalance, this integrated yoga module presents a structured, complementary framework designed to support primary medical treatment for effectively managing symptoms, and empower patients with practical tools for sustainable, long-term health and well-being.

Keywords: Peptic Ulcer Disease, Yoga Therapy, Stress Management, Mind-Body Therapy, Pancha Kosha

Ancient Insights, Modern Solutions: The Role of IKS in Global Sustainability

Dr. Mousmi Goel, Nirbhay

ABSTRACT

Abstract: Indigenous Knowledge Systems (IKS) represent a wealth of wisdom gathered over centuries, providing sustainable methods in agriculture, water management, forest conservation, and climate adaptation. In the face of urgent ecological issues, IKS offers contextually relevant perspectives that enhance contemporary scientific methods. This study investigates the contribution of IKS to global sustainability, highlighting the ways in which traditional ecological knowledge can guide current policy and practice. The study emphasizes the success of strategies that are culturally rooted and environmentally sensitive by examining case studies of communities that have integrated IKS into resource management effectively. The study shows that sustainable development can gain from a holistic approach that honors both heritage and innovation by promoting the merging of indigenous knowledge and contemporary technology.

Keywords: Indigenous Knowledge Systems, Sustainability, Traditional Ecological Knowledge, Climate Adaptation, Resource Management, Holistic Development

IKS- To be taught and Edify

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Integration of IKS with education Has become a necessity for today's world, because today's education only gives knowledge and has no connection with our past heritage. It is not that everything of our past was correct, but whatever heritage we had should be known to today's world. We can divide our knowledge in 3 categories -whatever the subject being taught, either medicine, physics, Commerce or biological sciences. All knowledge should be grouped as-

1. Already taught-
2. What not taught-
3. Should be taught

The education should be strategized so that it not only brings knowledge but also becomes a tool for edifying our students. It is not so the content should be changed but can be addition to existing ones.

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यह शोध-पत्र आयुर्वेद की निवारक और चिकित्सीय देखभाल की मौलिक नींव पर प्रकाश डालता है, जो स्वास्थ्य और कल्याण के लिए एक समग्र दृष्टिकोण प्रस्तुत करता है। आधुनिक चिकित्सा के विपरीत, जो मुख्य रूप से रोग के उपचार पर केंद्रित है, आयुर्वेद जीवनशैली में समायोजन, आहार संबंधी सुझाव और हर्बल उपचारों के माध्यम से स्वास्थ्य को बनाए रखने और बीमारी को रोकने पर जोर देता है।

यह अध्ययन विशेष रूप से ग्रामीण क्षेत्रों में औषधीय पौधों की महत्वपूर्ण भूमिका को रेखांकित करता है। ये पौधे न केवल स्थानीय स्वास्थ्य देखभाल नियमों का आधार हैं, बल्कि सतत आजीविका का एक शक्तिशाली मार्ग भी प्रदान करते हैं। ग्रामीण समुदायों को औषधीय पौधों की खेती, संग्रहण और मूल्य जैसे हर्बल उत्पाद बनाना में शामिल करके, आर्थिक सशक्तिकरण किया जा सकता है।

e[; fu"d"kh स्वास्थ्य सुधार: आयुर्वेदिक सिद्धांत, जैसे दिनचर्या और मौसमी दिनचर्या, बेहतर स्वास्थ्य और रोग प्रतिरोधक क्षमता के लिए मार्गदर्शन प्रदान करते हैं।

vkFkd fodkl औषधीय पौधों की खेती और व्यापार, ग्रामीण आबादी के लिए आय के नए स्रोत खोलते हैं, जिससे वे वनों से अंधाधुंध संग्रहण पर कम निर्भर होते हैं और जैव विविधता का संरक्षण होता है।

lrr lekku यह दृष्टिकोण स्वास्थ्य देखभाल और आर्थिक विकास के लिए एक टिकाऊ मॉडल बनाता है, जो पारंपरिक ज्ञान और पारिस्थितिक स्थिरता को एकीकृत करता है।

संक्षेप में, यह मॉडल न केवल ग्रामीण आबादी के लिए स्वास्थ्य सेवा तक किफायती और सुलभ पहुँच सुनिश्चित करता है, बल्कि उन्हें आत्मनिर्भर बनाने और उनके जीवन स्तर को ऊपर उठाने के लिए स्थानीय संसाधनों का उपयोग करने में भी मदद करता है।

e[; 'kcn % आयुर्वेदिक आधार, निवारक देखभाल, उपचारात्मक देखभाल, स्थायी आजीविका, औषधीय पौधे

Spiritual Well-Being and Burnout in Corporate Employees: A Review

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ABSTRACT

Burnout has emerged as a critical occupational health problem in contemporary corporate settings. Corporate employees often face heavy workloads, prolonged working hours, and blurred boundaries between professional and personal life. These demands contribute to poor work–life balance, inadequate time for rest or sleep, and increased vulnerability of both physical and psychological difficulties. Traditional stress management interventions, while beneficial, may not sufficiently address the deeper existential and emotional dimensions of burnout. Recently there has been an increasing scholarly and organisational interest in holistic frameworks that integrate mindfulness, spirituality and emotional regulation into well-being programs.

In this review, we will investigate the effect of spirituality-based programs at workplace for preventing or reducing burnout specifically in corporate sector. The review also explores how incorporating spiritual practices into workplace wellness programs can enhance psychological well-being, foster positive organizational culture, and support sustainable mental health outcomes. The increasing awareness of spirituality in workplace and how it can be useful in preventing the work-related stress and mental health outcomes.

Keywords: Burnout, Corporate sector, Spirituality, Workplace mental health, Holistic interventions.

Women's Rights in Ancient Indian Legal Texts: A Comparative Perspective with Modern Gender Justice Frameworks

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ABSTRACT

This paper examines the legal status and socio-legal rights of women as reflected in ancient Indian legal texts — primarily the Vedic corpus, Smritis (notably the Manusmriti), and the Arthashastra — and compares these historical norms with modern gender-justice frameworks including the Indian constitutional guarantees, statutory reforms (notably the Hindu Succession Act, 1956 and its amendments), and international instruments such as the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). The study adopts a doctrinal and textual-analysis approach, tracing continuities, ruptures, and interpretive possibilities. It argues that while ancient texts contain instances of relative female autonomy (particularly in early Vedic sources and the institution of *strīdhana*), later prescriptive literature often codified patriarchal restrictions; modern legal reforms have attempted to correct these inequalities but must contend with enduring social practices, interpretive traditions, and plural legal cultures.

Keywords: Vedic period, Manusmriti, Arthashastra, *stridhana*, Hindu Succession Act, CEDAW, gender justice, women's rights, comparative law

Women as Catalysts for Sustainable Environmental Practices: Local and Global Perspectives

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ABSTRACT

This paper explores a crucial role women play in promoting sustainable environmental practices both locally and globally. Women act as catalysts for change by initiating and leading sustainability efforts at community, household, and policy levels. Through qualitative case studies and literature review, the paper highlights women's participation in environmental movements, renewable energy initiatives, and conservation projects.

Women's everyday interactions with natural resources — such as water, land, and forests — position them as key agents in shaping sustainable practices within households, and organizations, communities.

This study examines how women act as catalysts for environmental responsibility through policy influence, leadership, and community participation. Drawing upon secondary data, reports, and cross-country evidence, the research examines gendered dimensions of environmental governance, emphasizing that women's empowerment enhances ecological balance, resource efficiency, and climate resilience. In shaping sustainable practices within households, communities, and organizations. Drawing upon secondary data, reports, and cross-country evidence, the research examines gendered dimensions of environmental governance, emphasizing that women's empowerment enhances ecological balance, resource efficiency, and climate resilience. The paper concludes that fostering gender-responsive environmental policies and providing institutional support at all levels are essential for building a more resilient and sustainable future. Women have long been at the forefront of environmental protection, community sustainability, and ecological balance, often acting as key agents of change in both local and global contexts. This research examines the critical role of women as catalysts for sustainable environmental practices by exploring their contributions, leadership, and innovations in addressing environmental challenges. Rooted in the understanding that environmental sustainability is deeply linked with social equity and gender participation, this study highlights how women's knowledge, empathy, and community-oriented decision-making significantly influence sustainable outcomes. The research investigates women's active participation in diverse areas such as resource management, renewable energy, waste reduction, biodiversity preservation, and environmental education.

At the local level, women's initiatives often emerge from grassroots movements—such as water conservation, organic farming, and forest protection—demonstrating their ability to integrate traditional ecological wisdom with practical solutions to local challenges. Globally, women leaders and organizations have shaped environmental governance through advocacy, policy influence, and international cooperation. The study discusses how global frameworks like the United Nations Sustainable Development Goals (SDGs), particularly Goals 5 (Gender Equality) and 13 (Climate Action), recognize the indispensable link between women's empowerment and environmental sustainability. Through comparative analysis, it highlights how gender-inclusive approaches in different countries have led to more effective environmental outcomes than gender-neutral strategies.

Community Participation and Collective Action in Environmental Conservation: The Role of Women in Grassroots Initiatives

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ABSTRACT

Sustainable environmental conservation requires more than top-down policy directives—it thrives on the collective participation of local communities who directly interact with natural resources. Within this framework, women play a vital role as leaders, caretakers, and knowledge bearers in fostering environmental stewardship. This paper explores how community participation, driven by women's engagement, strengthens collective action for environmental conservation. Drawing on empirical evidence and case studies from India, Africa, and Latin America, the research highlights how women's involvement in grassroots environmental initiatives contributes significantly to ecological restoration, natural resource management, and community resilience.

At the heart of environmental sustainability lies community participation—where shared responsibility, collaboration, and indigenous knowledge intersect to protect natural resources. Women, being deeply connected to their environment through livelihood, health, and family responsibilities, often spearhead community-based movements that emphasize sustainability from the ground up. The study focuses on key women-led initiatives such as India's *Self-Employed Women's Association (SEWA)* in renewable energy and water management, the *Green Belt Movement* in Kenya focusing on afforestation and women's empowerment, and Latin American cooperatives promoting sustainable agriculture and biodiversity protection.

The findings reveal that women's leadership in grassroots environmental initiatives leads to tangible ecological and social outcomes, including increased forest cover, improved water conservation, reduction in waste, and heightened community awareness. Women's collectives also contribute to strengthening local governance by fostering participatory decision-making, ensuring equitable access to environmental resources, and integrating indigenous ecological knowledge into modern conservation strategies.

Despite their critical roles, women's contributions are often undervalued due to gender bias, limited access to financial resources, and insufficient representation in environmental policymaking. The study argues that policies promoting gender-inclusive environmental governance are essential for long-term ecological sustainability. Programs that empower women through education, training, and leadership development amplify the impact of community-based environmental initiatives.

The paper concludes that women's participation transforms communities from passive beneficiaries into active environmental stewards. Their collective action not only conserves natural resources but also enhances social cohesion, economic resilience, and intergenerational sustainability. Thus, recognizing and institutionalizing women's roles in environmental conservation is central to achieving inclusive and sustainable development at both local and global scales.

Keywords: Women; Community Participation; Grassroots Movements; Environmental Conservation; Collective Action; Sustainable Development; Empowerment

Timeless Knowledge for a Changing Planet: Integrating Traditional Environmental Wisdom into Modern Sustainability Frameworks

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ABSTRACT

In an era marked by climate instability, biodiversity loss, and unsustainable patterns of development, humanity's quest for resilience demands a return to the time-tested principles embedded in traditional environmental wisdom. This research paper explores how indigenous and ancient ecological knowledge systems—developed through centuries of lived experience—offer valuable insights for addressing contemporary environmental challenges. It emphasizes that sustainability is not a modern invention but a deeply rooted practice within ancient civilizations that understood the symbiotic relationship between humans and nature.

Drawing upon interdisciplinary literature, ethnographic accounts, and policy analyses, the paper examines the philosophical and practical dimensions of traditional environmental wisdom. From India's *Vedic* and *Buddhist* teachings that advocate ecological balance and non-violence toward all life forms, to African and Native American traditions emphasizing stewardship and reciprocity, these ancient perspectives reflect a profound environmental ethic. The research highlights case studies such as India's sacred groves, tribal agroforestry models, and community-managed water systems that continue to embody sustainable living. These examples demonstrate that ecological harmony and social well-being can coexist when guided by ethical and collective responsibility toward nature.

The study further investigates how integrating traditional ecological knowledge (TEK) with modern sustainability frameworks can bridge the gap between science and culture. Global initiatives like the United Nations' Sustainable Development Goals (SDGs) increasingly acknowledge the value of indigenous knowledge in achieving long-term sustainability. By combining traditional insights with modern technology and governance mechanisms, societies can design adaptive, inclusive, and culturally resonant solutions for issues such as climate adaptation, resource conservation, and biodiversity restoration.

However, the paper also recognizes the challenges of integration—such as the erosion of indigenous knowledge, intellectual property concerns, and the need for respectful collaboration between scientific and traditional communities. It argues for the creation of institutional mechanisms that validate and protect traditional knowledge while enabling its coexistence with scientific innovation.

The paper concludes that timeless environmental wisdom offers more than historical insight—it provides a moral and practical compass for navigating the ecological crises of the 21st century. Integrating this wisdom into modern sustainability frameworks not only restores balance between humanity and nature but also redefines progress through the lens of harmony, continuity, and collective responsibility.

Keywords: Traditional Ecological Knowledge; Indigenous Wisdom; Sustainability; Environmental Ethics; Climate Adaptation; Cultural Ecology; Sustainable Development Goals

The Sonic Architecture of Space: Sound, Energy, and Vibration in Indian Design Philosophy

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ABSTRACT

Sound, in ancient Indian thought, has always been more than a sensory experience—it is understood as a fundamental creative force that structures both matter and consciousness. This paper explores the philosophical, scientific, and architectural dimensions of sound and vibration as expressed in India's architectural traditions, particularly within temple and ritual spaces. Drawing from Vedic cosmology, *Nāda Brahma* (the concept that the universe is sound), and *Vāstu Śāstra*, this study examines how sound was intentionally integrated into spatial design to harmonize energy fields, enhance meditative states, and facilitate spiritual transformation.

Through an interdisciplinary lens combining architectural acoustics, cultural anthropology, and Indic philosophy, this research investigates how sacred architecture—from the resonant domes of South Indian temples to the echo-chambers of Buddhist chaityas—embodied precise acoustic engineering long before the advent of modern science. The spatial geometry, material selection, and alignment of structures were all designed to amplify mantras, chants, and ritual sounds, thereby transforming architectural space into a living instrument of energy modulation. Case studies such as the Brihadeeswarar Temple (Thanjavur), Konark Sun Temple, and Ajanta Caves illustrate how ancient builders encoded sonic intelligence into spatial form, allowing the built environment to act as both amplifier and harmonizer of vibrational frequencies.

The paper further bridges this traditional wisdom with contemporary design discourse, proposing how principles derived from Indic acoustic practices can inform modern architecture—especially in designing meditation centers, performance halls, and therapeutic environments. By reinterpreting *Nāda* (cosmic sound) and *Śabda* (vibration) as core spatial elements, the study suggests a paradigm shift: from visual-dominant design to multisensory architecture that honors energy balance, resonance, and human well-being. Ultimately, this research underscores that re-engaging with Indic sonic philosophy is not merely an act of cultural revival but a pathway toward creating holistic, conscious, and sustainable spaces for the future.

Keywords: Indic architecture, Vāstu Śāstra, Nāda Brahma, acoustics, vibration, sacred geometry, temple design, sound-sensitive spaces, energy fields, sustainability

Vedic Heritage to Modern Identity, Kurukshetra: A Living Repository of the Indian Knowledge System

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ABSTRACT

One of the most important historical, religious, and cultural hubs of ancient India is Kurukshetra, which lies in the state of Haryana. For thousands of years, it has served as a breeding ground for Vedic knowledge, intellectual discussion, and ethical contemplation. It is known as Dharmakshetra in the Mahabharata. This essay examines Kurukshetra's significant contributions to the Indian Knowledge System (IKS), which formed the intellectual underpinnings of Indian civilization. These contributions include Vedic education, astronomy, Ayurveda, government, military ethics, and spiritual philosophy.

The study traces Kurukshetra's transformation from an ancient Indian sacred battlefield and centre of learning to a contemporary hub for pilgrimage, education, and history. This study demonstrates how Kurukshetra remains a living representation of India's ageless ideals and comprehensive knowledge traditions by fusing archeological discoveries, biblical allusions, and modern advancements. In order to highlight their contributions to the preservation and advancement of India's indigenous wisdom systems, the article also looks at important locations including Jyotisar, Brahma Sarovar, Sannihit Sarovar, and Kurukshetra University. The ultimate goal of this effort is to record the evolution and continuity of Kurukshetra's intellectual legacy from the Vedic to the digital era, thereby confirming its ongoing significance within the Indian intellectual System.

Keywords: Kurukshetra, Indian Knowledge System (IKS), Vedic Heritage, Mahabharata, Haryana, Jyotisar, Brahma Sarovar.

Topic: Social Enterprise and Seva: Redefining Business Success through Indian Philosophical Traditions

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ABSTRACT

In a global business environment increasingly dominated by profit-driven models, the concept of *Seva*—selfless service rooted in Indian philosophical traditions—offers a transformative framework for redefining success in social entrepreneurship. This research explores how ancient Indian ethical and spiritual principles, particularly those found in the *Bhagavad Gita*, *Upanishads*, and Gandhian thought, can reshape the moral and operational foundations of modern social enterprises. The study posits that integrating *Seva* into business practice transcends transactional goals, aligning entrepreneurship with collective welfare, ecological harmony, and human well-being.

Drawing upon a multidisciplinary approach encompassing philosophy, business ethics, and social innovation, the paper investigates how *Seva*-based entrepreneurship embodies the spirit of *Lokasangraha* (the welfare of all) as a guiding principle of enterprise. Unlike traditional business paradigms that equate success with financial returns, *Seva*-driven models emphasize social equity, sustainability, and inner fulfillment. Through a critical analysis of contemporary Indian social enterprises—such as the Amul cooperative movement, FabIndia's community-driven model, and Barefoot College—the study highlights how these organizations operationalize *Seva* through participatory governance, ethical sourcing, and empowerment of marginalized communities.

Furthermore, the paper contextualizes *Seva* within the global discourse on conscious capitalism and stakeholder theory, suggesting that Indic philosophies anticipated modern sustainability frameworks by several centuries. The research underscores that the *Dharma* of enterprise in the Indian context is not solely economic productivity but the balanced pursuit of *Artha* (prosperity) aligned with *Dharma* (ethical duty). This synthesis creates a unique leadership model where compassion, integrity, and self-restraint coexist with innovation and growth.

By integrating ancient Indian wisdom into modern entrepreneurial practice, the study proposes a shift from a shareholder-centric to a service-centric paradigm—where success is measured not merely by profit margins but by societal transformation, environmental stewardship, and the cultivation of human dignity. The findings suggest that *Seva*-based leadership fosters resilience, community trust, and sustainable impact, making it an essential framework for a more humane and equitable global economy. Ultimately, this paper calls for a re-envisioning of business education and policy to embed Indic ethical

frameworks, positioning *Seva* not as charity but as the very essence of enlightened entrepreneurship in the 21st century.

Keywords: Seva; Social Entrepreneurship; Indian Philosophy; Dharma; Conscious Capitalism; Ethical Leadership; Sustainability; Collective Welfare; Gandhian Thought; Business Ethics

The Concept of Trust in Indian Banking: From Seths to Digital Banks

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ABSTRACT

This study shows how the concept of trust has remained the backbone of the Indian banking system, evolving from traditional community-based financial practices of Seths and Sahukars to modern digital banking institutions. In the early stages of Indian commerce, trust was established through personal relationships, ethical conduct, and mutual understanding — values deeply rooted in the Indian Knowledge System (IKS). Over time, with the emergence of formal banking and technological innovations, the form of trust shifted from personal to institutional, and today, to digital trust based on transparency, cybersecurity, and reliability. The paper explores this transformation while emphasizing that the essence of trust—anchored in honesty, ethics, and responsibility—continues to define customer confidence in financial systems. The study concludes that sustainable banking in India requires blending technological progress with traditional ethical wisdom drawn from IKS to strengthen long-term trust between banks and customers.

Key words: Indian Banking, Trust, Digital Banking, Ethics, Indian Knowledge System, Financial Integrity, Customer Confidence

Arthashastra to Modern Banking : Ancient Indian Financial Wisdom in Contemporary Practice

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ABSTRACT

The study titled “Arthashastra to Modern Banking: Ancient Indian Financial Wisdom in Contemporary Practice” explores how the economic and financial principles of Kautilya’s Arthashastra remain relevant in today’s banking system. The paper provides an overview of ancient Indian financial practices, including lending, interest regulation, treasury management, taxation, risk assessment, and ethical wealth handling, and compares them with modern banking methods to show their continuing significance. A review of existing literature highlights previous research on ancient Indian economics, financial systems, and their connections with contemporary banking practices, emphasizing the value of integrating traditional knowledge with modern financial strategies. The methodology includes qualitative analysis of the Arthashastra text and comparative study with modern banking policies and practices. Findings reveal that principles such as ethical lending, strategic financial planning, and risk mitigation from the Arthashastra closely align with current banking operations, demonstrating their practical relevance. The study concludes that ancient Indian knowledge systems offer meaningful insights for building ethical, efficient, and sustainable financial practices in the modern world. Key references include Kautilya’s Arthashastra, research papers on ancient Indian finance, and modern banking studies.

Keywords: Arthashastra, Ancient Indian financial systems, Modern banking, Risk management, Ethical finance, Treasury management

Ancient Indian Acoustics from Natyashastra in Wave Physics Pedagogy for fourier analysis

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ABSTRACT

In this paper we study an effective method for solving Fourier series using numerical integration and fast Fourier transform (FFT) algorithms, validated through simulated acoustic waveforms. Results demonstrate a 25% improvement in student comprehension scores via pre/post-tests in a pilot undergraduate course ($n=45$), with qualitative feedback highlighting cultural affinity. This fusion not only decolonizes physics education but also fosters holistic learning, bridging ancient wisdom with computational tools for sustainable acoustic modeling.

The Natyashastra, an ancient Indian treatise attributed to Bharata Muni (circa 200 BCE–200 CE), encapsulates profound insights into acoustics through its exposition on sound production, resonance, and harmonic structures in performing arts. This paper explores the integration of Natyashastra's acoustic principles—such as the classification of sounds (dhvani) into verbal, vocal, and instrumental categories, and concepts of consonance (sama) akin to harmonic overtones—into modern wave physics pedagogy, specifically for teaching Fourier analysis. By drawing parallels between Bharata's intuitive understanding of wave superposition and Fourier's mathematical decomposition of periodic functions, we propose a culturally resonant pedagogical framework that enhances student engagement and conceptual grasp in STEM education. This approach aligns with India's National Education Policy (NEP) 2020, promoting Indian Knowledge Systems (IKS) in curricula.

Keywords: Natyashastra, Indian acoustics, Fourier analysis, wave physics pedagogy, Indian Knowledge Systems, harmonic superposition, STEM decolonization.

Entrepreneurial Dharma: Harnessing Indian Knowledge Systems for Ethical and Sustainable Business Growth

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ABSTRACT

In an era marked by rapid globalization, technological disruption, and ecological crisis, the need for a values-based, sustainable approach to entrepreneurship has never been greater. *Entrepreneurial Dharma: Harnessing Indian Knowledge Systems for Ethical and Sustainable Business Growth* explores how the timeless wisdom of Indian philosophical and ethical traditions can inform and transform contemporary business practices. Rooted in the concept of *Dharma*—the principle of righteousness, duty, and harmony—this framework positions entrepreneurship not merely as a profit-oriented pursuit but as a moral and social responsibility that contributes to collective well-being (*Lokasangraha*). Drawing insights from classical Indian texts such as the *Bhagavad Gita*, *Arthashastra*, and *Upanishads*, as well as indigenous practices of community-driven trade and sustainable livelihoods, the paper argues for a holistic entrepreneurial model that integrates economic success with ethical integrity and ecological balance.

The concept of *Entrepreneurial Dharma* emphasizes four interlinked dimensions: ethical leadership (*Satya* and *Ahimsa*), sustainable resource management (*Aparigraha* and *Samatva*), stakeholder-centric governance (*Seva* and *Swadharma*), and innovation aligned with societal good (*Yajna*). By situating entrepreneurship within the moral and ecological consciousness inherent in Indian thought, this paradigm challenges the dominant Western model of growth that often prioritizes short-term profits over long-term sustainability. The study also examines how contemporary Indian enterprises—particularly social ventures and grassroots innovators—have successfully embedded these principles into their business models, creating scalable and inclusive systems that respect both people and planet.

Furthermore, *Entrepreneurial Dharma* offers a conceptual bridge between ancient wisdom and modern management, demonstrating compatibility with frameworks such as Conscious Capitalism, ESG (Environmental, Social, and Governance) metrics, and the United Nations Sustainable Development Goals (SDGs). The integration of Indian Knowledge Systems (IKS) into entrepreneurship education and policy can foster a new generation of leaders who are both spiritually grounded and strategically agile. By reframing business as a dharmic pursuit—guided by self-awareness, ethical discernment, and social stewardship—this approach aspires to restore balance between material prosperity and moral purpose.

Ultimately, this paper contends that *Entrepreneurial Dharma* is not a nostalgic return to tradition but a forward-looking, globally relevant philosophy for reimagining business in the 21st century—one that harmonizes profit with purpose, competition with compassion, and innovation with inner consciousness, thereby enabling truly ethical and sustainable growth.

Reviving Indigenous Wisdom: Integrating Indian Knowledge Systems into Modern Entrepreneurial Practices

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ABSTRACT

Entrepreneurship in India has long been rooted in community cooperation, sustainability, and self-reliance. With the rapid modernization of business practices, there is an increasing need to reconnect contemporary entrepreneurship with traditional Indian Knowledge Systems (IKS). This paper explores how indigenous wisdom—embedded in ancient texts like the *Arthashastra*, *Thirukkural*, and in trade guilds (*shrenis*)—can be harmoniously integrated into modern entrepreneurial models. Using a qualitative methodology based on document analysis and case studies, the study identifies ethical principles, sustainability models, and holistic approaches derived from IKS that can inform ethical entrepreneurship, innovation, and long-term business sustainability. Findings reveal that startups incorporating indigenous ethical frameworks tend to display enhanced community engagement, resilience, and environmental responsibility.

In an era dominated by globalization and technological advancement, the revival of Indigenous Knowledge Systems (IKS) offers a valuable framework for sustainable and ethical entrepreneurship. India, with its centuries-old traditions of trade, craftsmanship, and community-based innovation, holds a vast repository of indigenous wisdom that continues to influence contemporary business ideologies. This research explores how Indian Knowledge Systems—rooted in principles from Ayurveda, Vedic management, Gandhian economics, and local artisanal practices—can be effectively integrated into modern entrepreneurial models to promote holistic development. It highlights the ways in which these traditional philosophies emphasize ecological balance, ethical governance, social equity, and long-term value creation, contrasting sharply with the short-term profit-driven approaches of conventional capitalism.

The paper examines various indigenous concepts such as *Swadeshi*, *Ahimsa* (non-violence), and *Sarvodaya* (welfare for all), and how they can inform entrepreneurial decision-making in areas like resource management, product innovation, and community engagement. Furthermore, it discusses the growing trend among Indian startups and social enterprises that consciously draw inspiration from these principles to create inclusive and sustainable business ecosystems. Examples include enterprises adopting circular economy models inspired by ancient waste-free production methods and cooperatives structured around collective ownership—reflecting traditional community-based trade practices.

The study adopts a mixed-method approach, incorporating qualitative analysis through case studies and interviews with entrepreneurs who blend indigenous values with modern business strategies. It also uses secondary data to identify recurring patterns and challenges in implementing these traditional models within the global market context. Key findings suggest that integrating Indian Knowledge Systems not only enhances cultural identity and ethical responsibility but also fosters innovation that aligns with sustainability and social development goals.

Hkkjrh; Kku ijijk e lR; dh vo/kkj.kk

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सहायक प्राध्यापक, (संस्कृत विभाग) भारती महाविद्यालय, दिल्ली विश्वविद्यालय, नई दिल्ली

lkj

भारतीय संस्कृति में सत्य को समझने के लिए भारतीय जीवन-पद्धति को समझना अत्यंत आवश्यक है। मानव जीवन के विकास क्रम में जीवन का सत्य कि हम कौन हैं, इस तथ्य को जानने व समझने के प्रयास तब से अब-तक अनवरत होते रहे हैं। विश्व का धार्मिक व अधार्मिक जीवन इसी सत्य को जानने के लिए अनवरत संघर्ष में भी बना रहा है।

यूरोप, अमेरिका रूस व चीन आदि देशों में अब गॉड पार्टिकल की खोज सत्य को जानने की निरन्तरता ही है। ईसाई – इस्लाम – झरथुस्त्र – कन्फ्यूशियस – शिन्तो – बहाई – यहूदी आदि धार्मिक जीवन इसी सत्य की खोज के निमित्त अपनी-अपनी अलग-अलग व्याख्याएं ही है।

^, d l f}çk cg/kk onfUr यह मन्त्र जीवन क्या है? हम कौन हैं? जैसे प्रश्नों का सारगर्भित उत्तर ही है। साथ ही संपूर्ण विश्व को धर्म किसे कहते हैं? क्या विश्व के सभी देशों में प्रचलित ईश्वर की उपासना की पद्धति को धर्म कहना उचित है? जैसे प्रश्नों की सुन्दर व्याख्या भी है।

, de से तात्पर्य है og , d है। l r से तात्पर्य ft l b'oj dgk tkrk g l foçk यानि Kkuhtu। cgèkk से तात्पर्य vud uke l l g l onfUr ;kfu dgr g l। अर्थात् ईश्वर एक ही है जिसे ज्ञानीजन अनेक नामों से अपने – अपने प्रकार से व्यक्त करते हैं। इस परमतत्व को कोई इन्द्र कहता है तो कोई वरुण, अग्नि, यम व मातरिश्वा इत्यादि नामों से पुकारता है।

v}l r onkUr के अनुसार जो सत्य है वही ब्रह्म है। ब्रह्म को एकमेव अद्वितीय कहा जाता है। यह ब्रह्म निराकार, निर्गुण एवं अखण्ड चेतना के स्वरूप वाला है। इसी को ज्ञानीजन इन्द्र आदि अलग अलग नामों से पुकारते हैं। वास्तव में यह सभी अलग-अलग नाम केवल उपाधियां हैं और दृष्टि की भिन्नताएं हैं सत्य तो यह है कि इस अनंत ब्रह्माण्ड का नियामक केवल ब्रह्म ही है।

}l r nk'kfud er के अनुसार ईश्वर परम सत्य है जिसे नारायण या विष्णु कहा जाता है। इन्द्र, यम व अग्नि इत्यादि नाम अलग-अलग स्वतंत्र ईश्वर नहीं हैं बल्कि उस परम सत्य (परमेश्वर) की शक्ति व विभाग मात्र ही है। अर्थात् परमात्मा मा परम सत्य तो एक ही है परन्तु उसकी महिमा अनेक रूपों में प्रकट होती है।

fof'k"Vk}l r ;k Hkkxor परम्परा की दृष्टि से सगुण ब्रह्म जिसे नारायण, राम व कृष्ण कहते हैं वह एक सत् है। इसे ही ऋषियों ने भगवान कहा है। राम, कृष्ण व नारायण रूपी अलग-अलग नाम तो भक्तों के द्वारा अपने आराध्य को पुकारने के केवल माध्यम भर हैं। यही नहीं कोई उस परमात्मा को अग्नि के स्वरूप में देखता है कोई सूर्य के स्वरूप में और कोई वायु के स्वरूप में अर्थात् उस परम सत्य की भक्तों के

द्वारा अपनी-अपनी भक्ति रूपी भावना के अनुसार अलग-अलग नामों से पुकारा जाता है। वास्तव में परम सत्य तो एक ही है किन्तु उसकी अभिव्यक्ति और अनुभव विविध स्वरूपों में व्यक्त होता है। , d l f } c k c g / k k o n f U r पर द्वैत सम्प्रदाय के संस्थापक मध्वाचार्य जी के अनुसार सत् यानि विष्णु एकमात्र परब्रह्म हैं। अन्य सभी देवता सीमित शक्तियों वाले हैं। अन्य सभी नाम अन्ततः विष्णु के ही रूप व कार्य हैं। इसी प्रकार l k [; n ' k u सत् को चौतन्य और प्रकृति मानता है। उसके अनुसार सत्य तो एक ही है केवल उसे भिन्न-भिन्न दृष्टिकोण से समझा जाता जाता है। c k) e r में इसी सत्य को धर्म या निर्वाण कहा गया है। जैन दर्शन में इसी सत्य को बहुमुखी कहा गया है अर्थात् इस मत का दृष्टिकोण सत्य को v u d k r o k n कहता है। दूसरे अर्थों में सत्य को समझने के लिए अनेकों स्वरूपों का सहारा लेना पड़ता है। इसी प्रकार L ; k n o k n f l) k r के अनुसार सत्य तो एक है परन्तु उस सत्य को देखने व कहने के अलग-अलग तरीके हो सकते हैं। ; k x n ' k u के अनुसार ईश्वर एवं आत्मा के मिलन को सत्य कहा जाता है।

