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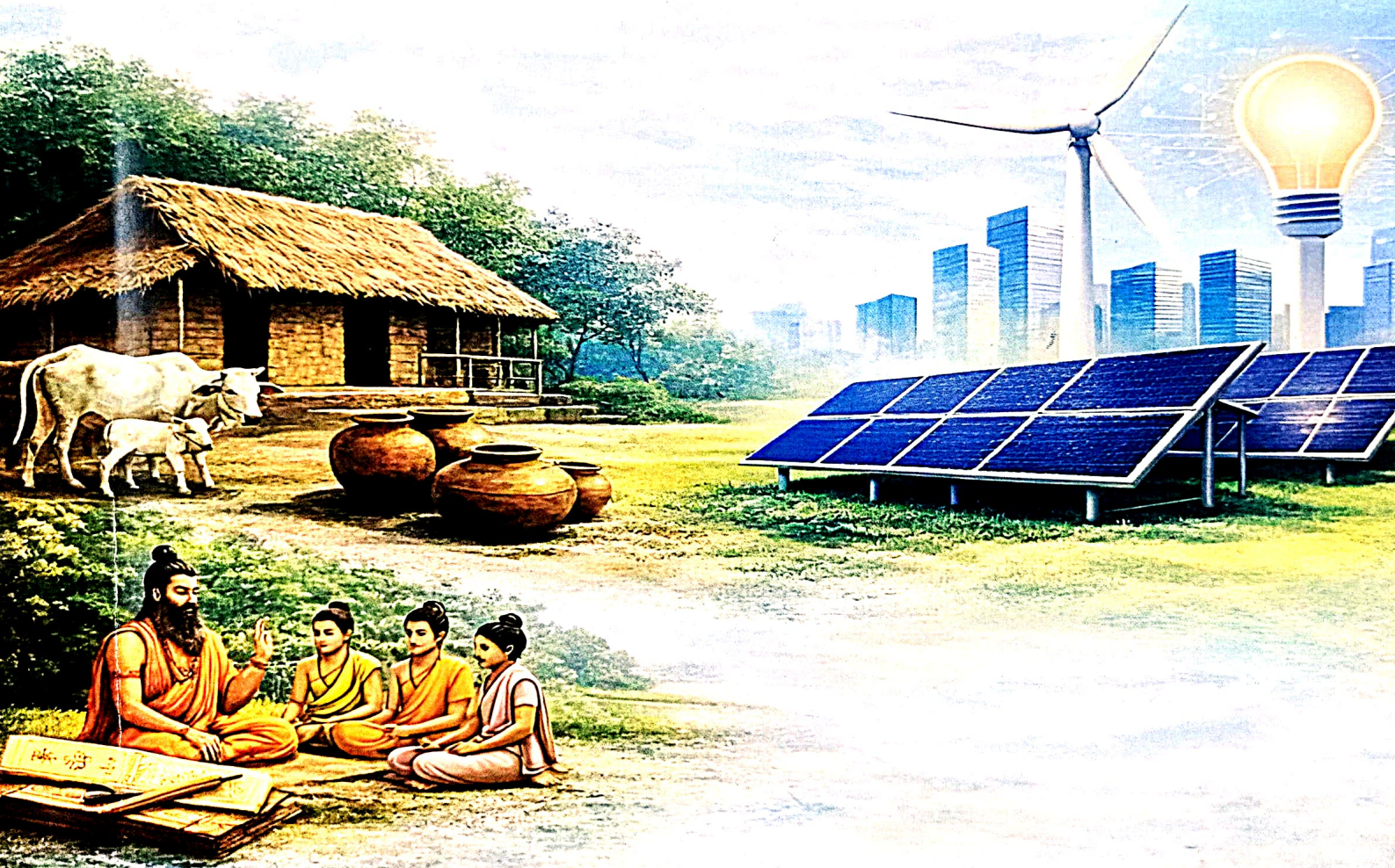
Organises

International Conference On -

## TRADITIONS TO INNOVATIONS

Role of Indian Knowledge System for  
Sustainable Development of Chhattisgarh's Resources

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*Wisdom is the principal thing; therefore get wisdom.  
And in all your getting, get understanding.*

Proverbs 4:7

*Souvenir*

*Abstracts*

OP-6

## Eco-friendly dyeing techniques in ancient india: a green chemistry perspective

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### Abstract

This research looks at how old Indian textile methods match current green chemistry ideas, focusing on sustainable ways to use natural dyes. India used to be a major place for colorful textiles because people there knew a lot about plants, minerals, and fermentation to make colors stick and last. By studying methods like cold dyeing, using bio-mordants such as Myrobalan, and the closed-loop fermentation of Indigo, this work shows these methods fit well with the 12 rules of green chemistry, mainly about cutting waste, using safe solvents, and saving energy. This paper compares how strong old colors are versus synthetic dyes from coal tar. It claims that old water-based ways to extract colors are a good, biodegradable option instead of the industrial dyeing waste filled with heavy metals that is used today. The results point to bringing back these old chemical processes as a guide for a circular bio-economy in today's fashion world. This could lower environmental impact and keep quality and price looking high.

OP-38

## Effect Of Aqueous And Alcoholic Extract Of *Cynodon Dactylon* On Immunomodulatory Activity On *Clarias Batrachus* Fish

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### Abstract

Aquaculture is one of the fastest growing Industries to meet the food demand of increasing population. The major Cultivable fish species in India are Indian Major carp, Exotic Carp, Tilapia and Catfish. Fish protein contain vitamin A, D, and B) Minerals (Ca, Mg, p, k, Na, Fe, Mn, Br , I And Cu. It is good for Diabetic Patients also. The main purpose of fish Culture is to obtained maximum yield of Nutrition diseases free and healthy fishes, when the fish are culture artificially and the pollution reaches high level, the dander of infections and passage of disease Causing pathogen from one fish to another increases due to Crowding and some other factors such as malnutrition, pollution and weak body resistance etc. The situation calls for either use of anti biotic as a treatment measure or strengthening the immune system of fish as a prophylactic Measure. For the strengthening of immune system by the use of harmless substance is the best remedy for the production of healthy fishes. Herbs being safer, cheaper, non toxic and biodegradable are most suitable for enhancing immune element of the system. One of the important medicinal herbs *Cynodon dactylon* pers. (Poeceae) played a key role in folk medicine. It is a perennial grass commonly known as Doob grass forming thick mats by means of stolen and rhizome. *Cynodon* has many Pharmacological properties of plant Viz., Anticonvulsant, , Antidiabetic Antimicrobial , Antihelminthic Antioxidant and Immunomodulatory property. Hence the present study was conducted to investigate the Catfish *Clarias batrachus*. *Clarias batrachus* is known for highly nutritive, restorative therapeutic qualities and recommended as a diet during sickness for undernourished and growing children. It also contains high value of iron and copper essential for hemoglobin synthesis. The fish of mixed sex and about 70-80 gm in weight were collected from local fish market of Raipur, treated with 0.2 % KMNO<sub>4</sub> Solution to dermal infection acclimatized under laboratory condition for 7 days. 36 fish were divided into three groups one treated as test receiving 50 ppm and 100 ppm of aqueous and alcoholic group of *Cynodopn dactylon* . The result of treated *Clarias batrachus* with *Cynodon dactylon* enhanced RBC count is an indication of high erythropoiesis in *C. batrachus*, the antioxidant activity of flavanoid may maintain the heme ion. The Study Suggest that the Treatment Of *Clarias Batrachus* With *Cynodon Dactylon* Stimulated Hematological (RBC,WBC,DLC) and Biochemical Parameters of total Serum Protein with Higher Antioxidant Enzyme. It Boost the Non Specific Immune System for the Purpose of Physiological adaptation in the new Environment.

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## Impact of Pesticide Residue on the Safety, Quality, and Nutritional Value of Pulses: A Deeper Analysis

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### Abstract

Pulses, or pulses, are an important source of protein, but because of intensive farming and pesticides used after harvest, they are becoming more and more contaminated with pesticide residues. This study investigated the effects of pesticide residues on pulses, focusing specifically on the longevity of organophosphates, such as chlorpyrifos, and synthetic pyrethroids in frequently consumed legumes. Pesticide residues, especially organochlorines and organophosphates, often go above safe levels. This can make seeds less likely to germinate, slow down the growth of young plants, and cause serious health problems like breathing problems, headaches, and long-term toxicity for people who eat them. Studies show that residue levels often go above Maximum Residue Limits (MRLs), which can be very bad for people's health and lead to long-term illnesses like cancer, reproductive problems, and damage to the nervous system. Also, these chemicals are harmful to soil and make it harder for pulse seeds to germinate, seedlings to grow, and plants to fix nitrogen in the soil that is necessary for their growth. This review also looked at how well home processing methods like washing, peeling, and cooking can lower the levels of contamination. Overall, the findings show that strict regulatory monitoring, safe farming practices, and better processing after harvest are all necessary to make sure food is safe.

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## Phytochemical Screening and Evaluation of Antioxidant Activity of *Cymbopogon citratus* Leaf Extract Using FRAP Assay

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### Abstract

*Cymbopogon citratus* (lemongrass) is an important medicinal plant widely known for its therapeutic and antioxidant properties. The present study was carried out to evaluate the phytochemical constituents and antioxidant activity of *Cymbopogon citratus* leaf extracts prepared using aqueous, methanol and petroleum ether solvents. Preliminary phytochemical screening revealed the presence of alkaloids, flavonoids, tannins, terpenoids and saponins in the plant extracts. Antioxidant activity was determined using the Ferric Reducing Antioxidant Power (FRAP) assay. The FRAP absorbance values for aqueous extract ranged from 1.77 to 2.39, methanol extract from 1.86 to 2.41, and petroleum ether extract from 1.57 to 1.94 at different concentrations. The results indicate that the methanol and aqueous extracts exhibit higher antioxidant potential compared to petroleum ether extract. These findings suggest that *Cymbopogon citratus* leaves contain bioactive compounds with significant antioxidant activity.

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## The Role of Indian Knowledge System in the field of Information and Communication Technology

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### Abstract

The rich intellectual traditions of India that have been developed over thousands of years in disciplines like mathematics, logic, linguistics, philosophy, and science are embodied in the Indian Knowledge System (IKS). The advancement of contemporary information and communication technology (ICT) has been greatly aided by these classical knowledge systems. Many contemporary computational and communication technologies are based on concepts introduced by ancient Indian scholars.

The creation of the decimal number system and the idea of zero, which are essential to contemporary computing and digital systems, is one of the significant contributions. Algorithmic thinking and structured language processing, which are closely related to contemporary programming and artificial intelligence, are demonstrated in classical writings on logic, grammar, and linguistics, such as Panini's grammatical rules. In a similar vein, contemporary database management and information systems can be likened to ancient Indian methods of organizing knowledge, classifying data, and conducting systematic analysis.

Additionally, the Indian Knowledge System places a strong emphasis on sustainable technology advancement, ethical knowledge application, and holistic thinking. These ideas are extremely pertinent in the current ICT context, where inclusive technology, digital ethics, and responsible innovation are major issues. Innovative solutions, better knowledge management, and culturally appropriate technical advancement can result from combining traditional Indian knowledge with contemporary ICT. Therefore, the study of Indian Knowledge Systems provides valuable insights that can enrich modern ICT research and education. By bridging traditional wisdom with contemporary technology, it is possible to create a more sustainable, ethical, and knowledge-driven digital society.

OP - 100

## Sustainability Concepts in Indian Knowledge System

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### Abstract

The Indian Knowledge System (IKS) represents a vast and integrated body of traditional knowledge that developed in the Indian subcontinent through centuries of observation, philosophical inquiry, and practical experience. A fundamental aspect of this knowledge tradition is the principle of sustainability, which emphasizes a balanced and harmonious relationship between human society and the natural environment. Classical Indian literature, particularly the Vedas and Upanishads, contains numerous references to environmental ethics, responsible resource utilization, and the interdependence of living and non-living components of nature. Traditional practices derived from the Indian knowledge tradition illustrate practical applications of sustainability in everyday life. Ancient Indian communities widely adopted systems of water conservation, organic and diversified agriculture, forest protection through sacred groves, and biodiversity preservation. Similarly, the principles of Ayurveda emphasize the balance between humans and nature, highlighting ecological harmony as an essential factor for maintaining health and well-being. In the contemporary context, global environmental challenges including climate change, biodiversity loss, and depletion of natural resources have intensified the need for sustainable development strategies. The sustainability principles embedded within the Indian Knowledge System provide valuable perspectives that can complement modern scientific approaches to environmental management. This review paper explores key sustainability concepts rooted in the Indian knowledge tradition and assesses their relevance in addressing current ecological challenges. Integrating traditional wisdom with contemporary sustainability frameworks may offer holistic and innovative pathways toward achieving long-term environmental sustainability.