International Year of Light & Light Based Technologies

National Seminar/ Scientific Lecture/ Interaction with leading Scientists

19 & 20 March, 2016

Organized By:

Environment and Social Welfare Society, Khajuraho

(Dedicated to Environment, Education, Art, Science & Technology entire India since millennium)

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Assisted By:

Godavari Academy of Science & Technology, Chhatarpur

Editor

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(Zoology, Ichthyology, Biochemistry & Free Radical Biology,
Toxicology and Stress Monitoring, and Biodiversity)

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Khajuraho-India

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Environment & Social Welfare Society (ESW Society) is the National Society of India. Now it's worldwide known by its impact. It is devoted to Environment, Education, Art and Science and Technology aspect related directly or indirectly to Environment and Social welfare *since Bi-Millennium.* ESW Society has been to develop relationship between Environment and Society envisions the promotion of Education and Sciences among the University, College and School students as well as in the society for Environment and Social welfare.

It is registered under Firms & Society Act 1973, Government of Madhya Pradesh, India on 31 January 2000. It was affiliated by Nehru Yuva Kendra Sangathan, Ministry of Youth Affairs and Sports, Government of India. It accredited by Madhya Pradesh Jan Abhiyan Parishad under Navankur Scheme, Government of Madhya Pradesh, since 2013. And having NGO-PS, Government of India. NGO Databases.

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Publication of the Environment and Social Welfare Bulletin (ESW Bulletin), Khajuraho is itself an evidence of its conservation and creative event of the Environment & Social Welfare Society.

If any queries please mail to info@ijgsr.com

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Editorial

This is an honor for the **Environment and Social Welfare Society,** Khajuraho, Madhya Pradesh to organize The International Year of Light & Light Based Technologies programme-15 on 19 & 20 March, 2016 in District Chhatarpur, Madhya Pradesh India, supported by **Madhya Pradesh Council of Science and Technology**, Bhopal. It is assisted by **Godavari Academy of Science and Technology**, Chhatarpur, Madhya Pradesh.

On 20 December 2013, the UN General Assembly 68th Session proclaimed 2015 as the **International Year of Light and Light-based Technologies (IYL 2015)**. In proclaiming an International Year focusing on the topic of light science and its applications, the UN has recognized the importance of raising global awareness about how light-based technologies promote sustainable development and provide solutions to global challenges in energy, education, agriculture and health. Light plays a vital role in our daily lives and is an imperative cross-cutting discipline of science in the 21st century. It has revolutionized medicine, opened up international communication via the Internet, and continues to be central to linking cultural, economic and political aspects of the global society. IYL 2015 programs will promote improved public and political understanding of the central role of light in the modern world while also celebrating noteworthy anniversaries in 2015—from the first studies of optics 1,000 years ago to discoveries in optical communications that power the Internet today.This International Year will bring together many different stakeholders including scientific societies and unions, educational institutions, technology platforms, non-profit organizations and private sector partners. An International Year of Light is a tremendous opportunity to ensure that international policymakers and stakeholders are made aware of the problem-solving potential of light technology. We now have a unique opportunity to raise global awareness of this.

To provide a platform to Educational Administrators, College Principals, Deans, Readers, Head of Departments, Professors, Assistant Professors, Scientists, Environmentalist, Researchers, Young scientists and Students to disseminate knowledge related to Light & Light Based Technologies.

Dr. Ashwani Kumar Dubey
President

Dr. L. L. Kori
Principal
Govt. Maharaja P.G. College, Chhatarpur
Affiliated to Maharaja Chhatrasal Bundelkhand University,
Chhatarpur MP

Message

I am delighted to know that The **International Year of Light & Light Based Technologies**-15 Programme National Seminar/ Scientific Lecture/ Interaction with leading Scientist are being organized on 19 & 20 March 2016 by **Environment and Social Welfare Society,** Khajuraho, Madhya Pradesh which is dedicated to Environment, Education, Art and Science & Technology entire India since bi-millennium, Under Govt. of M.P., Firms & Society Act 1973. Accredited by Jan Abhiyan Parishad, Navankur Scheme, Govt. of Madhya Pradesh and NGO-PS, Government of India. Supported by Madhya Pradesh Council of Science & Technology, Bhopal, Madhya Pradesh. It is assisted by Godavari Academy of Science & Technology, Chhatarpur Madhya Pradesh.

I congratulate **Dr. Ashwani Kumar Dubey** for organizing this International Year of Light & Light Based Technologies-15 Programme**.** I am greatly hopeful that this programme will provide a platform to students, researchers, academicians and policy makers to interact and enable exchange of ideas for the Light Based Technologies.

Dr. L. L. Kori
Principal

Acknowledgement

This is an honor for the **Environment and Social Welfare Society,** Khajuraho, Madhya Pradesh to organize The National Seminar on International Year of Light & Light Based Technologies on 19 & 20 March, 2016 in District Chhatarpur, Madhya Pradesh India. I am highly thankful to Prof. Pramod Kumar Verma, Scientific Advisor, Government of Madhya Pradesh and Director General, **Madhya Pradesh Council of Science and Technology**, Bhopal for grant to Environment and Social Welfare Society, Khajuraho for this event.

I am heartily thankful to **Dr. L. L. Kori**, Principal Government Maharaja Post Graduate College, Chhatarpur Madhya Pradesh for provide us venue at this Government Maharaja College, Chhatarpur.

It is my privilege and pleasure to express my profound gratitude to our Chief Guest **Prof. Priyvrat Shukla**, Vice-chancellor, Maharaja Chhatrasal Bundelkhand University, Chhatarpur Madhya Pradesh who have given very kind consented for Inaugural Programme of this event.

I am thankful to Honorable Guest **Dr. Masood Akhtar**, Collector District Chhatarpur. **Mr. Susheel Varmon**, District Co-ordinator, JAP, Chhatarpur for his valuable support and inspiration. I am heartily thankful to honorable invitee guest who have very kindly consented and given us an opportunity to share valuable thought which will provide milestone on the way of leading Scientists in the event.

I am heartily thankful to **Honourable Pushpraj Singh,** Farmer Education Minister, Government of Madhya Pradesh who have very kindly consented for Valedictory Function and Award Ceremony.

I am especially thankful to all delegates who actively participated in the event of science popularization.

I am profoundly thankful to my Board of Director and All members of Environment and Social Welfare Society, Khajuraho for their invaluable cooperation, and those entire person who are directly or indirectly concerned with this event.

Dr. Ashwani Kumar Dubey
President & Organizing Secretary

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The International Year of Light & Light Based Technologies-15 Programme
National Seminar/ Scientific Lecture/ Interaction with leading Scientist
on 19 & 20 March 2016.

National Seminar: Light is the life of Nature

Scientific Lecture: Light in the Built Environment

Interaction with Leading Scientist: Solar Energy & Climate Change

Object

To provide a platform to Educational Administrators, College Principals, Deans, Readers, Head of Departments, Professors, Assistant Professors, Scientists, Environmentalist, Researchers, Young scientists and Students to disseminate knowledge related to **Light & Light Based Technologies.**

Goal

International year will bring together many different stakeholders including scientific societies and unions, educational institutions, technology platforms, non profit organizations, and private sector partners.

Theme

To ensure that International policy makers and stakeholders are made aware of the problem solving potential of light technology. We have a unique opportunity to raise global awareness of this.

The general topics covered in the conference will be as under: Economic importance of Light, Light science and its application, Light and energy, Architecture & Urban planning, Agriculture and Horticulture, Transportation, Desalination & Water recycling, Solar thermal, Solar energy, Solar projects, Climate change, Green Chemistry, Role of light in energy, Education, Agriculture and Health, Photovoltaic Power Systems, Laser Fusion, Optical fibers, Photonics industry.

SEVERITY, INTENSITY AND NUTRIENT CONTENT IN LEAVES OF SHOOT BEARING HEALTHY AND MALFORMED PANICLE AS AFFECTED BY VARIOUS SOURCES OF NUTRIENTS UNDER HIGH DENSITY MANGO ORCHARD (*MANGIFERA INDICA* L.) CV. AMRAPALI

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A field investigation was conducted to study the effect of organic and inorganic sources of nutrients on physico-chemical properties of soil under high density mango orchard (*Mangifera indica* L.) cv. Amrapali at Horticulture Complex, Maharajpur, Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur (M.P.) during 2012-13 and 2013-14. A total of twenty four treatment combinations of inorganic and organic sources on nutrient were tested in factorial randomized block design with three replications. The results of study revealed that higher level of nutrient either in the form of chemical fertilizer or organic sources enhanced the concentration of macro and micro nutrient in leaves. Application 520: 160: 450 NPK g plant^{-1} and Vermicompost (25 kg) + Oil cake (2.5 kg) + Azotobacter + VAM + TV + PSB (100g each) registered higher concentration of N (2.59 and 2.78%), K (62.90 and 77.82 mg kg^{-1}), Zn (27.33 and 230.03mg kg^{-1}), Cu (9.53 and 10.51 mg kg^{-1}), Fe (196.93 and 213.10 mg kg^{-1}) and Mn (88.57 and 98.03 mg kg^{-1}) was in leaves of shoot bearing malformed panicle than healthy once. Whereas, higher concentration of P (0.37 and 0.34%) was in leaves of shoots bearing healthy panicle. Similarly, higher dry accumulation was with malformed panicles over healthy one. The minimum severity and intensity (1.8m^2 and 9.42%) of malformed panicle was noted when plant nourished with 100% RDF of chemical fertilizer (415: 130: 360 NPK g plant^{-1}) or (2.2m^2 and 12.15%) organic sources of nutrient (Vermicompost (25 kg) + Oil cake (2.5 kg) + Azotobacter + VAM + TV + PSB (100g each) or its combination registered (1.2m^2 and 5.56%).
Keywords*: Mycorrhiza (VAM), Trichoderma viridi, Azotobacter, Vermicompost*

CLIMATE CHANGE AND POSSIBLE SOLUTION

Ashwani Kumar Dubey and Kailash Chandra
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Climate change is a global challenge and requires a global solution. Through analysis and dialogue, the Center for Climate and Energy Solutions works with governments and stakeholders to identify practical and effective options for an international climate framework. Environment and Social Welfare Society (ESW Society) Khajuraho engages with national policymakers in the India and other key countries; regularly convenes informal discussions among climate negotiators; and organizes conferences, workshops, and briefings on national climate policy developments.
Keywords*: Climate change, global challenge*

NON-DESTRUCTIVE METHOD FOR CONTROLLING PEST POPULATION

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Pests severely affects the trees, plants and poultry and creating immense problem in food industry.The present work relates to a method of controlling a population of pests by way of using radiation techniques. The method comprises collecting a predetermined quantity of pests and treating the said pests with a plurality of radiations at predetermined doses and time to induce sterility. The pests include plurality of species of coleopteran beetles which further include Raphidopalpa-faveicollis, Alphitobius-diaperinus and Hoplocerambyx-spinicornis species. The radiations include UV radiation, X ‑ ray radiation and CO60 radiation. The radiations induce sterility in said pests by hampering reproductive cells of said pests which hinder their growth. The radiation used for hampering the reproductive capabilities of the present invention is selected from a group consisting of ultraviolet rays, X ‑ rays and Cobalt 60 rays. A low dose of ultraviolet rays is G ‑ 15 T ‑ 8/15 W for 20 minutes and a high dose of ultraviolet rays is G ‑ 15 T ‑ 8/15 W for 30 minutes is used. A low dose of X ‑ rays used is ranging from 60Kv ‑ 80MAS and a high dose of X ‑ rays is ranging from 65Kv ‑ 80 MAS. A low dose of CO.60 rays used is ranging from 1 ‑ 3 rads and a high dose of said CO.60 rays is ranging from 3 ‑ 5 rads for 20 minutes. The radiation induces mutation in the germ cells of the pest and causes sterility in the pest. The method involves rearing male population species exposed them to Radiation and releasing back to the environment. The radiation gives results in cellular level in chromosomes during spermatogenesis, by lengthening of nuclear division cycle and ultimately, inhibits the mitosis. Moreover, further doses (higher doses) of irradiation leads to stickiness and further clumping of Metaphase and Anaphase stages of cell division cycle, resultant stop its completion. This Radiation method could be useful to control the population of insect's pest, damaging the trees, plants and poultry. Hence, this method avoids the use of insecticide spray and environmental pollution and avoids a negative effect on the useful insects and other organism. This method of Radiation technology for controlling insect pest through hampering reproductive capacity by employing ionizing radiation and can be used in increasing the shelf life of food and food products.

Keywords: *spermatogenesis, induce sterility, hampering reproductive capacity, clumping of Metaphase, Radiation technology. Raphidopalpa-foveicollis, alphitobius-diaperinus, hoplocerambyx-spinicornis, UV radiation, X-ray radiation, CO. 60 radiation.*

SOCIO-ENVIRONMENTAL IMPACTS OF PRACTICING SOLAR THERMAL APPLIANCES

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The climate change concerns and its impact have always been linked to adopting and implementing various policies promoting the use of solar thermal appliances. If the impact is related to the socio-economic issues of a country, then policies should be expedited. India is endowed with a vast solar energy potential. India receives an average 5-7kWh/m^2/day of solar energy for more than 275 days a year. The abundant solar radiation, clean character of solar energy, high cost of fossil fuels and its adverse effect on environment are the key drivers for the strong focus on the development of solar thermal applications in India. In spite of these positive aspects, solar thermal appliances are not popular in India. The wind and solar PV has always been the centre of attraction in case of use of renewable energy in India. Promoting "solar thermal appliances" seems to be an issue of little interest. However, using solar thermal appliances and popularizing it, will certainly narrow the gap between LPG/ Electricity demand and supply.

The author himself is practicing solar thermal appliances such as solar water heater, solar cooker for many years. The experiences regarding their use are shared in this paper as a case study. The paper not only discusses the economic aspect but also social-environmental impact of using such appliances. The paper also discusses impedances in effective implementation of solar thermal technologies and also suggests few remedies to overcome it.
Keywords*: solar energy, solar water heating, solar cooking, social-environmental aspect conference stream, solar thermal*

LIGHT SCIENCE AND ITS APPLICATION

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Light is everywhere as you can see at your limit; light is electromagnetism radiation with some certain portion of electromagnetism spectrum. Biggest source of light is the sun, and radiation of sun is taken by green plants to create carbohydrates which is digest by living beings, light perform various function, the study of light with the interaction of matter is called optics and it's have various mechanical type such as camera, microscope, light microscope and lots more and in modern optics laser have big support in research and treatment such as flow cytometry Fluorescence cytometry cell sorting, bloodless surgery, laser eye surgery and still many function of light which is unknown.
Keywords*: light, optics*

IMPACT OF CLIMATE CHANGE ON AGRICULTURE SYSTEM AND NATURAL RESOURCE OF INDIA

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Due to rising population demand, use of natural resources has increased in an irreparable manner. Further, rising modernization is the prime factor in altering green house gases as a consequence climate is changing globally, as perceived since last couple of decades. Agriculture system is the prime support of global food demand as majority of people lived in rural areas nurturing their livelihood through integrated farming practices, which are altering at par rate touching global challenges in various ways one of them is changing climate. Global change flavoured in terms of climate change, fluctuations in temperature and rainfall, land use and land cover change, greenhouse gas emissions, thinning of ozone layer in atmospheric zone and biological invasion are some of the global challenges needs to be addressed. Rural set up intricately linked with various subsystems nurtured resource based social, cultural and economic scenario, alteration in terms of climate change may lead to serious complexity. Drivers of climate change flavoured surfaced in several extreme areas such as mountains, dry and desert regions, indo-gangetic plains and peninsular parts. Primary health care systems based on biological diversity and herbal medicines are affecting due to change in climate which will be discussed. Holistic approach in terms of linking social components with natural components could be an option of meetings the needs of sustainable climate management. This paper will address how changing climate alters traditional knowledge based practices, biodiversity use and conservation, ethnomedicinal properties, folk lore practices, farming activities and forest based resources and finally prioritise viable options for mitigation.
Keywords*: natural resources, agriculture, global food*

CLIMATE CHANGE AND ITS IMPACT ON INDUSTRIAL DEVELOPMENT

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Industrial development is important for economic growth, employment generation and improvement in the quality of life. However, industrial activities without proper precautionary measures for environmental protection are known to cause pollution and associated problems. Now, there is a global consensus about the threat posed by the climate change. The disagreement is only, on how to go about altering human activities that unleash greenhouse gases.
Keywords*: economic growth, climate change, greenhouse gases*

ECOFRIENDLY TOURISM FOR CONSERVATION OF BIODIVERSITY OF CHITRAKOOT

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Chitrakoot is such a nice rice place with natural beauty, green and dense forest kamad giri hills, Gupta Godavari caves & very sacred river Mandakini traverse through the place, from Anusuiya ghat to Rajapur. This perennial river start from Anusuiya ghat-hills & hillocks, having good quality of water so many valuable medicnal herbs and variety of non human anthropoids, Monkies found in this place showing their peculiar behaviour. This well known place where Lord Rama spent 11 years of their exile. Due to all above factors, pilgrims and tourist visit this places regularly through out the year at the time of Amavasya, Deepawali, Sharad poornima & some other festivals more then 5-10 Lacks people gathered on the bank of the river. Load of pilgrims & tourist is very high Anthropogenic activities, Religious activities affect badly ecology of this place as well as water quality of river Mandakini. Organic matter, & other pollutants level is very high at that time. For conservation of Medicinal plants and Biodiversity of Chitrakoot. It is necessary to prepare an effective and perfect plan to check the uncontrolled tourism. It should be ecofriendly Awareness is needed among peoples for proper Implementation.
***Koywords**: ecofriendly tourism, biodiversity*

CLIMATE CHANGE AND INTEGRATED WATER RESOURCES MANAGEMENT IN INDIA

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About 60 percent of total arable land (142 million ha) in India is rain-fed, characterized by low productivity. Ground water resources are being depleted faster and surface of water bodies are also shrinking due to climate change and changed pattern of rainfall. Besides, these areas are also blighted by poverty, water scarcity, low productivity, and malnutrition and prone to severe land degradation. The watershed development programme has been adopted as a tool to address problems of the rain-fed or degraded areas in the country. Management of natural resources at watershed scale produces multiple benefits in terms of increasing food production, improving livelihoods, protecting environment. The integrated watershed development programme with participatory approach will provide technological tools for water and food security problems. Integrated Water Resources Management system is proposed by Global Water Partnership. Moreover, the need to create partnerships between donor organisations, private and government institutions and community representatives like NGOs in watersheds is to enhance an 'organisational society' among stakeholders. This paper deals with water shed management in

India with special reference to Rain Water Harvesting Structures (RWHS), irrigation bore wells, quarry ponds and irrigation canal-fed ponds. As documented information could be obtained only on the numbers of the first three, survey was conducted to derive their water spread area (WSA) specially for Vindhya region of Madhya Pradesh including need of GIS study for water resource management in present context of climate change.

Keywords*: Climate change, integrated water resouce management, watershed, water harvesting structures,GIS*

STUDY ON RECYCLING OF THE MUNICIPAL DRAINAGE THROUGH BIO-FILTRATION IN AN ABANDONED STONE QUARRY OF REWA TOWN DIST REWA, MADHYA PRADESH

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In an agricultural landscape, common contributors to water pollution are nutrients and sediment which typically enter stream systems after rainfall washes them off poorly managed agricultural fields, called surface runoff, or flushes them out of the soil through leaching. These types of pollutants are considered nonpoint source pollution because the exact point where the pollutant originated cannot be identified. This approach suggest the integration of technologies within the natural boundaries of a drainage area for optimum development of land, water, and plant resources to meet the basic needs of people and animals in a sustainable manner.

This study was for water resource management through bio filtration process using marginal vegetation which recycle the water and utilized for fish culture with modified technology in an abandoned stone quarry, Bansagar colony pond having 1.5 ha area within municipal area of Rewa town by utilization of municipal drainage discharge from Bansagar colony through marginal littoral vegetation which became useful in summer season for conserving fish population used for fish culture in the incoming season and later on water collected from catchment area of nearby agriculture field and surface run off of the town . Here fish seeds of Indigenous major carps (Catla catla, Labeo rohita, Cirrhina mrigala) and exotic carps(Common carp and Silver carp) were used for composite fish culture with relay fish cultivation technique with biomass of harvested fish of 3256kg/ha/yr. Physico-chemical parameters were recorded according to which depth varied from 1.2 - 4.3m, temperature from 19.6 to 32^{o} C, transparency 11.76 to 22.56cm. Degradation of quality was observed as range of DO varied from 1.5 to 11.9, BOD 4.8-8.9, COD 11.2-45.8, Chloride 34.6-115.8mg/l, Total alkalinity 78.4-321mg/l, TDS 213.7-641.2mg/l nitrate1.2-8.3mg/l and phosphate 01.72-5.41 mg/l. Here recycling of municipal drainage water was utilized as a water resource of the pond. Marginal vegetation and Azolla act as bio filtration and bioremediation process of drainage water. It has been recorded that this technology raised underground water level through recharging process as revealed from

the datas of borewell. Many quarries naturally fill with water after abandonment and may prove a good water resource used extensively in human habitation, industry, agriculture fisheries and for recreation. Depending on application, the quantity and quality of water needed differ widely. Fresh water in such water bodies is very significant in reference to fish and fisheries and recharging of the underground water in present context of climate change and global warming to meet out water scarcity and food resource

Keywords*: recycling of municipal water, biofiltation, abandond stone quarry, fish culture, rewa town*

ORGANIC FERTILIZERS FOR SUSTAINABLE AGRICULTURE DEVELOPMENT

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From last few decades, the Organic fertilizers become more and more popular in farming due to its long term sustainability and less hazards impact on soil as well as on environment. Organic fertilizers are derived from biotic matter, extracted from minerals and produced industrially. Organic fertilizers are composed of only organic matter. On the other hand chemical fertilizer is a careful preparation of different essential nutrients designed to enhance the plant's growth. Bio-derived fertilizers include Animal matter, Human excreta and plant matter like compost, manure etc. Organic fertilizers have many advantages over the chemical fertilizers as it improves soil health and increase its workability. Organic fertilizers does not pollute nearby water bodies as they must breakdown first to release their nutrients and enhance the plant growth.

However modern Agriculture industries developed several synthetic Fertilizers, soil conditioners and soil additives. Black surya- Humic acid granules manufactured by Sikko Industries Ltd., Ganga grow nitrobenzene manufactured by Greenland bioscience, Super Potassium Humate Fulvate manufactured by Advanced chemical Sales Corporation and Organic IDHA chelate micronutritent mixure (Foliar spray) manufactured my Nutri Ahar Speciality products private limited are some of the famous Synthetic organic fertilizers in India.

Organic fertilizers are carbon based compounds that increase the productivity and growth of plants. They have various benefits over the chemical fertilizers; because of they are Non toxic to food, on farm production, Low captive investment, Increase Fertility of Soil without harming to environment. So in modern agriculture strategies we should prefer the Organic fertilizers rather than Chemical Fertilizers as it is Eco-friendly and its long term sustainability in the Environment.

Keywords: *organic fertilizers, sustainability, pollution, toxicity, eco-friendly*

NEED OF UNCONVENTIONAL ENERGY–SOLAR ENERGY

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Now a day's is time of science and technology. It required much of energy for invention and run to processes. Due to that Present time all the part of earth facing big problem of pollution and lack of resource's of energy for human and science. At present maximum energy resources are create big environmental pollution. So today's basic need is pollution free environment.

For that it must be required to create and adoptee non pollution and unconventional process of energy one of them is solar energy. This is non polluted and unlimited resource of energy.

Big problem with solar energy is that its conversion into useful energy. Cost of conversion is high and maintenance of equipment is high due to that it is not used at time.
Keywords*: science and technology, energy*

CLIMATE CHANGE: NATURE'S CURSE ON HUMAN INTERVENTIONS – A MYTH OR TRUTH

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Since the time immemorial, Nature has ever been the primary source of sustenance for humans and climate has been the most-felt mundane reflection of the powers of Nature. In the last few decades, Climate change has been the most discussed topic on the apex levels across the globe. Simply without commenting on the proceedings and outcomes of such summits, I would like to make a review of the phenomenon, its known or believed causes and impacts. Nowadays, the term climate change has become synonymous to global warming. But Climate change is much more a complex and bigger phenomenon than global warming. Climate implies to the varied and numerous aspects of Nature which gave existence to the psychic unity of mankind irrespective of cultural, racial and linguistic differences. Our subhuman ancestors, like other thousands of species of animals used to lead a life which was completely submissive in vigour and subsistential in nature. Earlier, they adjusted themselves with the Nature as other species do. Later, they endeavored to change it as it was quite necessary to switch from subhuman to humans.
Keywords: *climate chane, nature, human*

ECONOMIC IMPORTANCE OF LIGHT AND LIGHT BASED TECHNOLOGIES: SUSTAINABLE SOLUTIONS FOR THE FUTURE

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Light plays a vital role in our daily lives and is an imperative cross-cutting discipline of science in the 21st century. It has revolutionized medicine, opened up international communication via the Internet, and continues to be central to linking cultural, economic and political aspects of the global society. For centuries light has transcended all boundaries, including geographic, gender, age, culture and race, and is a tremendous subject to motivate education. Light underpins the technologies of daily life; from smartphones, laptops and the Internet to medical instruments and LED lighting, all are possible because of photonics. The 21st century will depend as much on photonics as the 20th century depended on electronics to solve the challenges of a modern world. Light plays a central role in human activities. On the most fundamental level through photosynthesis, light is necessary to the existence of life itself, and the many applications of light have revolutionized society through medicine, communications, entertainment and culture. Industries based on light are major economic drivers, and light-based technologies directly respond to the needs of humankind by providing access to information, promoting sustainable development, and increasing societal health and well-being. Light Technology is essential to improve society's energy independence through devices that efficiently convert sunlight to other energy forms, and new forms of low cost green lighting. Light provides efficient, renewable alternatives that can help us mitigate climate change and meet energy demands, by both providing energy and diminishing energy consumption. Light and light-based technologies are a part of most modern technology, from mobile phones to laser shows. Light and photonics are poised to become key enabling technologies of the future. The future of light technologies is dependent upon understanding how to apply light technologies to new solutions and creations that enhance our everyday life.
Keywords: *light, modern technology, sustainable*

LIQUEFACTION: A HAZARD DURING EARTHQUAKE

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Since time immemorial the earth crust has been facing natural disasters which include volcanic eruption, cyclones, earthquakes, landslides etc. amongst these landslides and earthquakes cause damages to infrastructures thereby, a danger to human life. For safety of these manmade structures it is mandatory to design the structure as an earthquake resistant one. Therefore the aspect of earthquake is to be studied.

This paper deals with one of the phenomenon which occurs during earthquake i.e. "Liquefaction". Liquefaction is a soil behavior in which saturated soil looses strength due to high pore water pressure generated during strong earthquake ground shaking. The cataclysmic effect of liquefaction includes flow failure, loss of bearing strength, ground oscillation, ground settlement, lateral spread. The measures to be adopted to reduce the hazard to an acceptable limit incorporate zoning restrictions, ground strengthening, evaluation of risk factors etc.

Keywords*: earth, hazards, earthquake*

SOLAR ENERGY IN INDIAN PERSPECTIVE

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Solar energy is radiant light and heat from the Sun harnessed using a range of ever-evolving technologies such as solar heating, photovoltaics, solar thermal energy, solar architecture and artificial photosynthesis. It is an important source of renewable energy and its technologies are broadly characterized as either passive solar or active solar depending on the way they capture and distribute solar energy or convert it into solar power. Active solar techniques include the use of photovoltaic systems, concentrated solar power and solar water heating to harness the energy. Passive solar techniques include orienting a building to the Sun, selecting materials with favorable thermal mass or light dispersing properties, and designing spaces that naturally circulate air. The large magnitude of solar energy available makes it a highly appealing source of electricity. The United Nations Development Programme in its 2000 World Energy Assessment found that the annual potential of solar energy was 1,575–49,837 exajoules (EJ). This is several times larger than the total world energy consumption, which was 559.8 EJ in 2012. In 2011, the International Energy Agency said that "the development of affordable, inexhaustible and clean solar energy technologies will have huge longer-term benefits. It will increase countries' energy security through reliance on an indigenous, inexhaustible and mostly import-independent resource, enhance sustainability, reduce pollution, lower the costs of mitigating global warming, and keep fossil fuel prices lower than otherwise. These advantages are global. Hence the additional costs of the incentives for early deployment should be considered learning investments; they must be wisely spent and need to be widely shared.

Keywords*: solar energy, sun, architecture*

EFFECT OF LIGHT ON PLANTS AND ENVIRONMENT

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All plants require sunlight to grow. Plants can be grown under artificial lights, but these lights are just mimicking the effects of sunlight. Dependent on the type of plant and its natural habitat, the amount of sunlight required for healthy growth will vary, but no plant will survive for long in the absence of light. For example, no green plants have been found in any of the world's deep cave systems. Plants are classed as autotrophs, which means that they produce their own food. To do this they require an input of energy and this energy is provided by sunlight. All plants that produce their own food, (there are a few exceptions) contain the green pigment chlorophyll. Chlorophyll absorbs energy in the form of sunlight and this energy is used in the process known as photosynthesis. Thus the amount of sunlight a plant

receives will effect its rate and amount of growth. Other factors such as temperature and available soil nutrients are important, but without sunlight the plant cannot survive. Beans planted and keep in the dark will germinate and begin to grow, but this is due to the store of energy in the bean seed. The plants will be straggly and pale and will soon die. In the tropics, with lots of sunlight and warmth, plants can grow much faster than in colder northern climates, where light levels are also much reduced. The other limiting factor in plant growth, of course, is the availability of water.

Keywords*: chlorophyll, sunlight, water*

OPTICAL FIBER

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An optical fiber is a flexible, transparent fiber made by drawing glass (silica) or plastic to a diameter slightly thicker than that of human hair. Optical fibers are used most often as a means to transmit light between the two ends of the fiber and find wide usage in fiber-optic communications, where they permit transmission over longer distances and at higher bandwidths (data rates) than wire cables. Fibers are used instead of metal wires because signals travel along them with lesser amounts of loss; in addition, fibers are also immune to electromagnetic interference, a problem from which metal wires suffer excessively. Fibers are also used for illumination Optical fibers typically include a transparent core surrounded by a transparent cladding material with a lower index of refraction. Light is kept in the core by the phenomenon of total internal reflection. An important aspect of a fiber optic communication is that of extension of the fiber optic cables such that the losses brought about by joining two different cables is kept to a minimum An important aspect of a fiber optic communication is that of extension of the fiber optic cables such that the losses brought about by joining two different cables is kept to a minimum. The field of applied science and engineering concerned with the design and application of optical fibers is known as fiber optics.

Keywords*: optical fiber, light*

ROLE OF ENERGY IN AN ECOSYSTEM

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Energy is ability to do work. In an ecosystem most energy comes from the sun entering as light, than being converted to chemical energy and ultimately leaving the ecosystem as heat energy. Plants convert solar energy into chemical energy in the form of sugars by the process of photosynthesis plants provide energy to consumes species which include all type of animals. All dead organisms including plants and animals, are consumes by decomposers. Average amount of radiants energy from the sun that reach the Earth's atmosphere is called as solar constant. This value is calculated at 2 calories per minutes on each square centimetre of the earth's surface calculation of the solar constant are done using the astronomical unit (AU) which is the mean distance between the earth and sun. One AU is equivalent to 92,960,000 miles (149,604,970km).

SOLAR POWERED VEHICLE

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The renewable energy is dynamic for today's worldas in near future the non-renewable sources that we are using are going to get exhausted. The solar vehicle is astep in saving these non-renewable sources of energy. The basic principle of solar car is to use energy that is stored in a battery during and after charging it from a solar panel. The charged batteries are used to drive the motor vehiclewhich serves here as an engine and moves the vehicle in forward and reverse direction. The electrical tappingrheostat is provided so as to control the motor speed. This avoids excess flow of current when the vehicle is supposed to be stopped suddenly as it is in normal cars with regards to fuel. This idea, in future, may help protect our fuels from getting extinguished.
All recent electric vehicles present drive on AC power supplied motor. The setup requires an inverter set connected to battery through which DC power is converted to AC power. During this conversion many losses take place and hence the net output is very less and lasts for shorter duration of time. Although this is cheaper the setup and maintenance required ismuch more in AC drive than DC drive. The vehicle designed is controlled by Electrical means and not byElectronic means.
Keywords: *D.C. motor, rheostat control, lead-acid, batteries, solar panel, battery*

ऊर्जा व पर्यावरण संरक्षण सकारात्मक पहल

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मनुष्य जलवायु परिवर्तन की समस्या का हिस्सा होते हुए, वे ही समाधान का भी हिस्सा है। समाधान के लिये ''स्थिरता की दशा में सकारात्मक कार्यवाही करने लिये उपाय और प्रतिबद्धता'' जिसमें व्यक्तिगत, एक परिवार, एक समुदाय के रूप में जिम्मेदारी के साथ, हमारे दैनिक जीवन में चुने जाने वाले विकल्प जैसे ऊर्जा संरक्षण, वायु प्रदूषण में कमी, हरित क्षेत्र जैव विविधता की वृद्धि, संसाधनों के सहभाजन, पुनर्चक्रण और अपशिष्ठ के पुनः उपयोग, खपत को कम करने, जल संरक्षण, पर्यावरण व पारिस्थितिकी के प्रति जागरूकता पैदा करते हुये, दूसरो को भी सकारात्मक लक्ष्य के लिये प्रोत्साहित करना चाहिये।
राष्ट्रीय स्वच्छ ऊर्जा कोष और प्रतिपूरक वनीकरण कोष प्रबंधन एवं योजना प्राधिकरण का किया है, जो जलवायु परिवर्तन के लिये रणनीति, ज्ञान, बदलाव और आवश्यक विज्ञान और प्रौद्योगिकी को बढ़ावा दे रही हैं।
अल्पीकरण हेतु भारत के प्रयास :–

- संरक्षण और दक्षता के माध्यम से ऊर्जा मांग को कम करके
- स्वच्छ और हरियाली विकल्पों के माध्यम से
- वनक्षेत्र और शहरी जंगलों को बढ़ाना

सौर ऊर्जा योजनाएँ :–

- नहर पर सोलर फोटोवोल्टिक (PV) (जल क्षय को कम तथा बिजली उत्पादन को बढ़ाना)
- बिजली पैदा करने के लिये सोलर रूपटॉप हेतु सोलर फोटोवोल्टिक सिस्टम

- अन्य नवीनीकरण योजना पवन (60 गीगावॉट), बायोमाम (10 गीगावॉट), छोटेपन विद्युत (5 गीगावॉट), सौर प्रणाली से (100 गीगावॉट), निर्मल ऊर्जा उत्पन्न करने का लक्ष्य जो मेगावाट से गीगावॉट सन् 2015 से 2022 तक 175 गीगावॉट (NBMMP)
- बायोगैस प्लांट 'राष्ट्रीय बायोगैस और खाद प्रबंधन कार्यक्रम' के तहत
- कोयले द्वारा विद्युत उत्पादन
- प्राकृतिक गैस–गैस टर्वाइन स्टेशनों पर प्राकृतिक गैस का उपयोग
- ऊर्जा संरक्षण भवन कोड (CECBC) इमारतों पर लागू करना
- पथ से पटरी अर्थात् माल ढुलाई में खर्च डीजल, रेल की तुलना में 20 गुना ऊर्जा अधिक खपत करता है।
- सार्वजनिक परिवहन वाहनों में CNG का उपयोग, बस रैपिड ट्रांजिट सिस्टम, मेट्रो आदि के उपयोग पर्यावरण प्रदूषण कम होगा।

अतः हरितीकरण की दशा में स्वच्छ हवा, स्वच्छ पर्यावरण, स्वच्छ ऊर्जा, अधिक हरियाली व स्वच्छ जल रखने की पहल करनी होगी। भारत की संस्कृति अरण्य संस्कृति है, जो खुले आसमान के नीचे, प्रकृति और पेड़ो के सानिध्य में अध्ययन करता था, जो चिंतन और नये विचार के साथ ऑक्सीजन भी देता है। खाद्य प्राप्ति हेतु, प्रदूषण से निपटने के लिये प्रकृति की ओर अर्थात् ''पृथ्वी के फेंफड़ों'' वनों व पारिस्थितिकी को संरक्षित करना मुख्य लक्ष्य है।

भूमण्डलीय तापन का प्रभाव

कृष्णा शुक्ला
भूगोल विभाग, शासकीय महाराजा महाविद्यालय, छतरपुर (म.प्र.)

औद्योगीकरण, कोयला तथा पेट्रोल का दहन, जंगलों की कटाई से वायुमण्डल में कार्बन डाइ ऑक्साइड की मात्रा बढ़ी है। तथा विभिन्न उधोगों से उत्पन्न गैस जैसे क्लोरो फ्लोरो कार्बन, मीथेन, ओजोन तथा नाइट्रस ऑक्साइड की मात्रा भी बढ़ी है। ये सभी ग्रीन हाउस गैसे कहलाती है। इनकी विशेषता यह है कि ये सौर किरणों को पृथ्वी पर आने देती है किन्तु उन्हें विकिरण द्वारा वापस लौटने नहीं देती है इससे धरती का तापमान बढ़ता है। इसे ही भूमण्डलीय तापन कहते है।

भूण्डलीय ताप वृद्धि माननीय कारणों से हो रहा है। विगत एक सौ वर्षो में धरातलीय वायु के तापमान में 0.52^0 सेल्सियस से 0.75^0 सेल्सियस तक की वृद्धि की गई है। परन्तु ताप वृद्धि में अक्षांशीय समानता नहीं है। उत्तरी गोलार्द्ध में तापवृद्धि अधिक तथा दक्षिणी गोलार्द्ध में कम है। जल–थल का असमान वितरण तथा जनसंख्या संकेन्द्रण इसका मुख्य कारण है। ध्रुवों तथा अन्य क्षेत्रों में हिम की विशाल राशि है। भूमण्डलीय तापन में वृद्धि से इनका हिमद्रवण होगा जिससे समुद्रों को अतिरिक्त जलराशि की प्राप्ति होगी। फलस्वरूप सागर तल ऊँचा होगा। अनेक समुद्र तटीय देश तथा दीप जलमग्न हो जायेगे। जैव विविधता का ह्रास होगा। पर्यावरण असन्तुलन की ओर अग्रसर होगा। विश्व तापमान में सर्वाधिक वृद्धि 1997–98 में अंकित की गयी इस समय हिन्द महासागर के तापमान में 2^0 सेल्सियस से भी अधिक वृद्धि हुयी थी। तापमान में वृद्धि के कारण प्रवाल कीटों की भारी संख्या में मृत्यु हुई। अण्डमान निकोवार तथा लक्ष्यद्वीप के तटीय क्षेत्रों में 70 से 80 प्रतिशत प्रवाल कीट नष्ट हो गये। साथ ही हिन्द महासागर की जलगति एवं दिशा में आकस्मिक परिवर्तन अंकित किया गया। वर्तमान में तापमान की वृद्धि 0.8^0 सेल्सियस आँकी गई है। वनस्पति, मानव, जीव जन्तु तथा पर्यावरण सन्तुलन के लिये भूमण्डलीय ताप वृद्धि को रोकना नितान्त आवश्यक है। यदि ऐसा नही होता है तो विश्व का तापमान निरन्तर बढ़ता जायेगा, पर्यावरणीय समस्यायें उत्पन्न होती जायेगी। जिसका समाधान सम्भव नहीं होगा।

Brief Report of National Event of ESW Society

Indian Classical Dance & Music Festival-2015

(Dance Event: To conserve, promote and develop the Indian's culture & Tourism)

Venue: Shilpgram, Open Air Theatre, Khajuraho **Date:** 15 & 16 November, 2015

Time: 7:00 pm to 10:00 pm

ENTRY FREE

Organized by

Environment and Social Welfare Society, Khajuraho India

(Dedicated to Environment, Education, Art and Science & Technology entire India since bi-millennium)

In India, dance developed as a classical art and served as a medium between external world and internal teachings. History of Indian classical dance considers Natyashastra as its main source. It was on Lord Indra`s request that Brahma wrote the fifth Veda called Natyashastra. Through centuries the dances in India are considered a medium of worship and expression of emotions. Religious element always played a vital role in dancing. Rich culture and deep tradition comprises the different aspects of Indian society. History of Indian Classical Dance has witnessed throughout a series of changes. The origin of Indian dance has been divine. In fact dance in India covers a broad range of dance and dance theatre forms, from the temple dance to folk and modern styles. Hindu deities like lord Shiva, goddess Kali and Lord Krishna, are invocated initially in most of the classical Indian dances as they represent dance as an art.

It is a new research of the Artist who is performing in Indian Classical Dance and Music Festival in the world heritage and International tourist place Khajuraho on the stage of Shilpgram, South Central Zone Cultural Centre, Nagpur. Now a day's gradually declining Biodiversity, Natural Resources, Wildlife caused by natural disaster and Environmental degradation are the major problem in all over the planate. To understand and minimize the problem Artist will try to aware here by performing Classical art from the various part of India viz. Madhya Pradesh, Chhatisgarh, Nepal, New Delhi, Hongkong, Andhra Pradesh, Maharashtra, Karnataka, Haryana, and Telengana.

15 November 2015

Indian Classical Dance & Music Festival-2015 organized by Environment and social welfare society, Khajuraho inaugurated on 15 November 2015 at khajuraho in the gracious presence of **Chief Guest Honourable Sushree Kusum Mehdele,** Minister for Law & Legislative Affairs, Public Health Engineer, Government of Madhya Pradesh**. President Honourable Pt. Tapan Roy,** Former Cultural Ambassador, Indian Embassy Astana, Russia & Kazakhstan, and **Guest of Honour Maharani Kavita Singh,** Chairman Municipal Corporation, Khajuraho**, Mr. Rajesh Prajapati,** President Jila Panchayat, Chhatarpur**, Mr. Shiv Prasad Malveey,** Divisional Coordinator, Jan Abhiyan Parishad, Sagar**, Dr. Jagdis Rawat**, Madhya Pradesh State Biodiversity Board, Bhopal **Mr Ravindra Chokse**, Sub Divisional Magistrate, Rajnagar by Candle lighting in front of Dancing God Natraj.

After candle lighting **Lord blessing ceremony performed by Group of** Nrutyam, Odissi Dance Academy, Raigarh, Chhattisgarh. Shruti Das, Adili Bahidar, Kusum Pandey, Ojaswayee Thakur, Sanskriti Sharma, Khishee Pradhan, Unnati Pradhan, Vaishnavee Pradhan, Hashita Verma, Bhavyadarshee Behera. Artist of Lord blessing ceremony honoured by **Honourable Sushree Kusum Mehdele,** Minister for Law & Legislative Affairs, Public Health Engineer, Government of Madhya Pradesh**.**

Kathak Duet performed by Leena Malakar vij & Purnima Roy Chowdhury, from Nepal & New Delhi with Ganesh vanda, Anjali to lord ganesha.based on raag drsh and taal choutaal. In 2nd presentation Nrit, Upaj, Uthan, Thaat, Amaad, Tihai, Paran, Ladi, Gatnikas. In 3rd presentation Ardhanariswara concluding with Tarana or tillana based on raag bagaishree and taal jhap taal. Kathak artist Leena Malakar vij & Purnima Roy Chowdhury honoured by **"Godavari Memorial Award for Distinction in Indian Classical Dance"** and Certificate by **Honourable Sushree Kusum Mehdele,** Minister for Law & Legislative Affairs, Public Health Engineer, Government of Madhya Pradesh**. President Honourable Pt. Tapan Roy,** Former Cultural Ambassador, Indian Embassy Astana, Russia & Kazakhstan, and Guest of Honour **Maharani Kavita Singh,** Chairman Municipal Corporation, Khajuraho. Mrs. Vandana Dubey, MD, Godavari Academy, Chhatarpur and Programme Director Dr. Ashwani Kumar Dubey.

Bharatnatyam presented by Roopa Kiran, Hongkong. Roopa Kiran**,** honoured by **"Godavari Memorial Award for Distinction in Indian Classical Dance"** and Certificate by **Honourable Sushree Kusum Mehdele,** Minister for Law & Legislative Affairs, Public Health Engineer, Government of Madhya Pradesh**. President Honourable Pt. Tapan Roy,** Former Cultural Ambassador, Indian Embassy Astana, Russia & Kazakhstan, and Guest of Honour **Maharani Kavita Singh,** Chairman Municipal Corporation, Khajuraho. Mrs. Vandana Dubey, MD, Godavari Academy, Chhatarpur and Programme Director Dr. Ashwani Kumar Dubey.

Odissi: Mugdha Rachakonda, Raigarh, Chhattisgarh based on Barsha-The Rain. 1. Ashta shambhu is an oddissi dance which depicts the eight rupas of Lord Shiva. 2. Barsaa is an

environment related dance. Barsaa which means the Rain is the most essential part of our environment and is the crucial requirement of every living being. 3. Navarasa: Navarasa presents the nine expressions arising in the life of a person. Mugdha Rachakonda, honoured by **"Godavari Memorial Award for Distinction in Indian Classical Dance"** and Certificate by **Honourable Sushree Kusum Mehdele,** Minister for Law & Legislative Affairs, Public Health Engineer, Government of Madhya Pradesh**. President Honourable Pt. Tapan Roy,** Former Cultural Ambassador, Indian Embassy Astana, Russia & Kazakhstan, and Guest of Honour **Maharani Kavita Singh,** Chairman Municipal Corporation, Khajuraho. Mrs. Vandana Dubey, MD, Godavari Academy, Chhatarpur and Programme Director Dr. Ashwani Kumar Dubey.

Honourable Chief Guest Sushree Kusum Mehdele, Minister for Law & Legislative Affairs, Public Health Engineer, Government of Madhya Pradesh**. President Honourable Pt. Tapan Roy,** Former Cultural Ambassador, Indian Embassy Astana, Russia & Kazakhstan, and **Guest of Honour Maharani Kavita Singh,** Chairman Municipal Corporation, Khajuraho**, Mr. Rajesh Prajapati,** President Jila Panchayat, Chhatarpur**, Mr. Shiv Prasad Malveey,** Divisional Coordinator, Jan Abhiyan Parishad, Sagar**, Dr. Jagdis Rawat**, Madhya Pradesh State Biodiversity Board, Bhopal **Mr Ravindra Chokse**, Sub Divisional Magistrate, Rajnagar honoured by Mementos by Mrs. Vandana Dubey, MD, Godavari Academy, Chhatarpur and Programme Director and President of ESW Society Dr. Ashwani Kumar Dubey**.**

16 November 2015

Indian Classical Dance & Music Festival-2015 organized by Environment and social welfare society, Khajuraho started in the gracious presence of **Chief Guest Dr. S. N. Pandey**, Vice Chancellor, Indira Gandhi Technological and Medical Sciences University, Ziro, Arunachal Pradesh, India. **President Kun. Vikram Singh,** MLA, Rajnagar. **Guest of Honour Dr. Shyam Pandey**, Yoga Expert, New Delhi.

Bharatnatyam presented by Nrupa Soman, Goregaon West, Mumbai with them Bharatanatyam Margam. Nrupa Soman, honoured by **"Godavari Memorial Award for Distinction in Indian Classical Dance"** and Certificate by **Chief Guest Dr. S. N. Pandey**, Vice Chancellor, Indira Gandhi Technological and Medical Sciences University, Ziro, Arunachal Pradesh, India. **President Kun. Vikram Singh,** MLA, Rajnagar. **Guest of Honour Dr. Shyam Pandey**, Yoga Expert, New Delhi

Kathak presented by Sanchita lahoti from Bangalore, Karnataka based on Save Tree and Animals. Sanchita lahoti honoured by **"Godavari Memorial Award for Distinction in Indian Classical Dance"** and Certificate by **Chief Guest Dr. S. N. Pandey**, Vice Chancellor, Indira Gandhi Technological and Medical Sciences University, Ziro, Arunachal Pradesh, India. **President Kun. Vikram Singh,** MLA, Rajnagar. **Guest of Honour Dr. Shyam Pandey**, Yoga Expert, New Delhi.

Kuchipudi: Bathina Sisters (Tejasri & Bhagyasri), Vishakhapatnam, Andhra Pradesh Bathina Sisters (Tejasri & Bhagyasri) honoured by **"Godavari Memorial Award for Distinction in Indian Classical Dance"** and Certificate by **Chief Guest Dr. S. N. Pandey**, Vice Chancellor, Indira Gandhi Technological and Medical Sciences University, Ziro, Arunachal Pradesh, India. **President Kun. Vikram Singh,** MLA, Rajnagar. **Guest of Honour Dr. Shyam Pandey**, Yoga Expert, New Delhi.

Climate change based Group performance of Soniya Dance Class, Chhatarpur, Madhya Pradesh. Miss. Anjali Nayak, Anandi Khare, Shruti Jain, Akshra Khare, Priyanka Rawat, Akshita Bundella, Janvi Rai, Shalini Gupta, Nisha Soni, Anshika Khare, Shriyanshi Saxena, Seema, Meenakshi, Princi, Ruchi, Devanshi, Aashita, Bhupendra Verma, Ojasvi Soni, Subhash and Mudit Dubey. Group honoured by Mementos and Certificate by **Chief Guest Dr. S. N. Pandey**, Vice Chancellor, Indira Gandhi Technological and Medical Sciences University, Ziro, Arunachal Pradesh, India. **President Kun. Vikram Singh,** MLA, Rajnagar. **Guest of Honour Dr. Shyam Pandey**, Yoga Expert, New Delhi.

Bharatnatyam presented by Tanya Saxena from Gudgeon, Haryana Theme based on Nature and the Male-Female principal. Despite their roots in ancient scriptures, these verses echo the contemporary idioms of today's society - exploring the tenets of gender equality and the quest for an ultimate happiness through their lyrics. Tanya will begin her performance with Ganga Stuti. It will continue with the ardhanareeshwara ashtakam. In celebration of this beautiful evening of music and dance, Tanya concludes with a piece describing Krishnas sweetness. Tanya Saxena honoured by **"Godavari Memorial Award for Distinction in Indian Classical Dance"** and Certificate by **Chief Guest Dr. S. N. Pandey**, Vice Chancellor, Indira Gandhi Technological and

Medical Sciences University, Ziro, Arunachal Pradesh, India. **President Kun. Vikram Singh,** MLA, Rajnagar. **Guest of Honour Dr. Shyam Pandey**, Yoga Expert, New Delhi.

Kuchipudi performed by Pujita Krishna Jyoti from Telengana Presented A combination of Kuchipudi and Vailasni Nrityam. Celebration of Nature in Indian mythology. It's based on the celebration of different aspects of Nature: the five elements, and the four seasons as celebrated in Kalidasa's Ritusamhara. The entire presentation will be presented in a combination of both styles viz Kuchipudi and Vilasini Natyam. Pujita Krishna Jyoti honoured by **"Godavari Memorial Award for Distinction in Indian Classical Dance"** and Certificate by **Chief Guest Dr. S. N. Pandey**, Vice Chancellor, Indira Gandhi Technological and Medical Sciences University, Ziro, Arunachal Pradesh, India. **President Kun. Vikram Singh,** MLA, Rajnagar. **Guest of Honour Dr. Shyam Pandey**, Yoga Expert, New Delhi.

Bharatnatyam presented by group of Raghu Nandan S. from Karnataka with disciple Mansi, Ullas Prasanna Kumar and Samhita Kashyap. Raghu Nandan S. from Karnataka with disciple Mansi, Ullas Prasanna Kumar and Samhita Kashyap honoured by **"Godavari Memorial Award for Distinction in Indian Classical Dance"** and Certificate by **Chief Guest Dr. S. N. Pandey**, Vice Chancellor, Indira Gandhi Technological and Medical Sciences University, Ziro, Arunachal Pradesh, India. **President Kun. Vikram Singh,** MLA, Rajnagar. **Guest of Honour Dr. Shyam Pandey**, Yoga Expert, New Delhi.

All guest of this event honoured by mementos of Environment and social Welfare Society President**.**

Vote of thanks given by Programme Director and President of ESW Society Dr. Ashwani Kumar Dubey**.**

Brief Report of
3rd National Conference On "Strategy for Human Welfare on Nature conservation and Resource management"
Organized by Environment & Social Welfare Society Khajuraho-471606 Madhya Pradesh, India from 31 January and 01 February, 2016

Prof. N. C. Gautam, Vice-chancellor inaugurating 3rd Annual National Conference

A PRELUDE: After the success of 2nd National conference on "Environmental degradation and Global health 2015" The **3rd National conference on "Strategy for Human Welfare on Nature conservation and Resource management" 2016** Organized By Environment & Social Welfare Society Khajuraho-471606 Madhya Pradesh, India from 31 January to 01 February, 2016 at Khajuraho world heritage of India.

OBJECT: To provide a platform to Educational Administrators, Vice-Chancellor, College Principals, Deans, Readers, Head of Departments, Professors, Assistant Professors, Scientists, Environmentalist, Researchers, Young scientists and Students to disseminate knowledge related to **Nature Conservation, Resource Management and possible solution by Technological Approach.**

GOAL: The moral obligation to act sustainably as an obligation to protect the natural processes that form the context of human life and culture, emphasizing those large biotic and abiotic systems essential to human life, health, and flourishing culture. Ecosystems, which are understood as dynamic, self-organizing systems humans have evolved within, must remain 'healthy' if humans are to thrive. The ecological approach to sustainability therefore sets the protection of dynamic, creative systems in nature as its primary goal. The principal goal of this

conference will be to present some of the latest outstanding breakthroughs in Environment and global health, to bring together both young and experienced scientists from all regions of the world, and to open up avenues for research collaborations at regional and global level.

THEME: Take some positive steps towards improving our Earth for future generation.

INAUGURAL FUNCTION: The **3rd National Conference** inaugurated on 31 January, 2016 by Chief Guest Prof. N. C. Gautam, Vice-chancellor, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, Madhya Pradesh, Key note speaker Prof. K. K. Sharma, Former Vice Chancellor, MDS University Ajmer, Rajasthan Guest of Honour Prof. Kubaer Ram Mourya, Former Vice Chancellor Rajendra Agricultural University, Pusa, Bihar, Special Guest Dr. Kunal Kumar Das, Scientist (Retd.), IIRS, Indian Space Research Organization Dehradun, Uttrakhand, Prof. Shivesh Pratap Singh, Secretary, Bundelkhand Extended Region Chapter, Chitrakoot, The National Academy of Sciences India, Allahabad. Fellow/Member of Environment & Social Welfare Society Khajuraho-471606 Madhya Pradesh, India, Mrs. Vandana Dubey, Managing Director, Godavari Academy of Science and Technology, Chhatarpur, Madhya Pradesh and other distinguished guests, participations from various part of India and Two hundred+ listener including media were participated in conference.

Souvenir released which included abstract from various part of India including Madhya Pradesh, Uttar Pradesh, Bihar, Karnataka, Maharashtra, Rajasthan, Gujarat, Uttarakhand, Haryana, Jammu Kashmir, New Delhi, Pakistan, Romania.

And also released a Book by the guest in this occasion Edited by Dr. Ashwani Kumar Dubey.

Prof. K. K. Sharma, Former Vice Chancellor, MDS University Ajmer, Rajasthan delivered Key note address on Bioacoustic based sensors can effectively reduce man wild life conflict.

Prof. N. C. Gautam, Vice-chancellor, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, Madhya Pradesh emphasized that Need to study of Environment conservation and Biodiversity on practical level and must be introduced with the latest technology.

Prof. Kubaer Ram Mourya, Former Vice Chancellor Rajendra Agricultural University, Pusa, Bihar says enhancement of food processing is necessary for proper food supply and need to develop basic infrastructure and technique for grain and food storage for future.

Dr. Kunal Kumar Das, Scientist (Retd.), IIRS, Indian Space Research Organization Dehradun, Uttrakhand, focused on regular monitoring of environment is required by remote sensing and GPS technique for nature and resource management.

Dr. Ashwani Kumar Dubey, Executive Director and Convenor & President of The National conference delivered his presidential address emphasized the role of ESW Society in Human and Social welfare and also focus on annual report of the ESW Society, Khajuraho. And focus attention on wildlife conservation to maintain food chain and ecosystem for maintain our safe Environment. Plantation may be safe guard instead of wire boundary in National park and sanctuary.

TECHNICAL SESSION: After the inauguration, the scientific session held.

The general topics covered in the conference will be as under:

Nature Conservation

Ecology, Ecosystem and its conservation Measure, Impact of Food chain and Food web on Human life, Animal Behavior and Wildlife Conservation, Biodiversity Conservation and Sustainable Management, Conservation and promotion of Medicinal plants, Eco-Tourism in

India, Conservation of critical and fragile habitats & corridors, Land degradation and Forest Conservation, Climate change and endangered species in India, Role of N.G.O. in Nature conservation, Critical, Endangered and Endemic Species Conservation, Natural Disaster, Volcano, Natural calamities, Achieving Environmental Security: Ecosystem services and human Welfare.

Resource Management

Status of Natural resources, Alternation in Natural resources, Preventive measure for natural resources and conservation, Rural Development, Tribal Welfare , Water Conservation, Chemical & Mineral Conservation, Oxidative Stress and Biomarker, Occupational health hazards, Environmental Impact Assessment, Agrochemical and environmental hazards. Environment Conservation and Validation of traditional knowledge, Pollution and its monitoring, E-waste and Solid waste management, Eco-Toxicology, Environmental Ethics.

Technological Approach

Method and Technique for Nature Conservation, Bio-indicator as a tool of Nature, Recycling process of pollutant, Application of bio-technology, Rural bio-technology, Tools and technique for protection and conservation of bio-resources, Bio-markers with special reference to climate change, Ecosystem management technique.

SCIENTIFIC EXIBITION: An exhibition was arranged along with conference. Researchers got opportunity with delegates and scientist to discuss their needs and publication in the reputed journals.

CULTURAL PROGRAMME: To conserve, promote and develop the Indian's culture, Environment and Social Welfare Society, Khajuraho arranged cultural event with the national conference.

VALIDICTORY & AWARD CEREMONY: Prof. K. K. Sharma, Former Vice Chancellor, Maharishi Dayanand Saraswati University, Ajmer, Rajasthan was the Chief Guest, Dr. A. K. Pandey, Scientist, National Bureau of Fish Genetic Resources, Lucknow was Special Guest and Dr. Kunal Kumar Das, Scientist (Retd.), IIRS, Indian Space Research Organization Dehradun, Uttrakhand was the President of the Validictory and award ceremony of the Conference. And other eminent scientists were present on this occasion.

AWARD CEREMONY:

National Amazing Godavari Memorial Award (NAGMA) in the field of Education & Science awarded to Prof. K. K. Sharma**,** Former Vice Chancellor, MDS University Ajmer, Rajasthan.

Best Paper Oral Presentation Award in each Session awarded to Dr. Jitendra Kumar, Fisheries College, Manglore; Dr. Sanofer Khokhar, Fisheries Research Station, Junagarh, Okha port, Gujarat; Dr. Mohammad Danis, Dr. Dipali Jat, Dr. Harisingh Gour University, Sagar MP.

Best Poster Presentation Award in each session awarded to Dr. Aditya Narayan, Bundelkhand University, Jhansi Uttar Pradesh; Dr. Meenakshi Sharma, CP University, Kota Rajasthan

Young Environmentalist Award to Dr. Jitendra Kumar, Fisheries College, Manglore

Young Scientist Award (Below 35 Years) to Dr. Mohammad Danis, Manglore.

Best Scientist Award 2016 to Dr. Karruna S. Perdeshi, Abasaheb Garware College, Pune

Fellowship of ESWSociety Awarded to Dr. Karruna S. Perdeshi, Pune

ESW Recognition Award: For "Valuable support to ESWSociety for Nature conservation" to Dr. Prahlad Dubey, Kota Rajasthan**;** Dr. A. K. Pandey Lucknow Uttar Pradesh.

Honourable Member of ESW Society to **Prof. N.C. Gautam,** Vice-chancellor, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot-485334

Honourable Fellow of ESW Society: to Prof. K. K. Sharma**,** Former Vice Chancellor, MDS University Ajmer, Rajasthan. Prof. Kuber Ram Maurya, Former Vice Chancellor Rajendra Agricultural University, Pusa, Bihar. Dr. Kunal Kumar Das, Scientist (Retd.), IIRS, Indian Space Research Organisation Dehradun, UK

ESW Society Life Member Certificate Award: Dr. Karruna S. Pardeshi Assistant Professor of Zoology, Abasaheb Garware College, Pune; Mrs. Renu Jain**,** Infront of Collector Bonglaw, Chhatarpur; Mr. Rachakonda Satyanarayan**,** Assistant Manager Operations, Jindal Steel & Power, CG**;** Dr. Atul Kumar Mishra**,** Associate Professor of Zoology, DAV College Kanpur; Dr. Praveen Kumar**,** Research Scholar Blundelkhand University, Jhansi; Dr. Deepali Jat**,** Asst. Professor of Zoology, Dr. Hari Singh Gour Central University, Sagar.
Certificate of Paper presenter and Participants given by the Chief Guest.
And vote of thanks by Dr. Prahlad Dubey.

RECOMMENDATIONS:

- Bioacoustics based sensors can effectively reduce man wild life conflict.
- Need to study of Environment conservation and Biodiversity on practical level and must be introduced with the latest technology.
- Scientist said that there is more need to work for food processing sector in India.
- Enhancement of food processing is necessary for proper food supply and need to develop basic infrastructure and technique for grain and food storage for future.
- Regular monitoring of environment is required by remote sensing and GPS technique for nature and resource management.
- Attention on wildlife conservation to maintain food chain and ecosystem for maintain our safe Environment. Plantation may be safe guard instead of wire boundary in National park and sanctuary.
- Needs to revise its current approach by adopting the ecological methods and innovative techniques of waste management.
- Evidences indicate that research is needed to improve the quality and quantity of compost as well as its efficient management.
- Biological process controlled nutrient cycling and influence many other aspects of soil fertility.
- Knowledge of these processes helps farmers make informed management decision about their crops, how these decision affect soil biology especially root growth and organic matters are key factors in efficient nutrient management.
- It requires training to the farmers in proper crop selection and farming practices and also the strict monitoring by the agriculture ministry.
- Species conservation must be prime target for eco-balance and global health.
- Much stress must be given on challenges at national level viz. Malnutrion, Poverty, and environmental degradation**.**

3rd National Conference On "Strategy for Human Welfare on Nature conservation and Resource management" Organized By Environment & Social Welfare Society Khajuraho-471606 Madhya Pradesh, India. In association with The National Academy of Sciences India, Allahabad, Supported By Madhya Pradesh Council of Science and Technology, Bhopal MP, and Assisted by Godavari Academy of Science and Technology, Chhatarpur, Madhya Pradesh. on **31 January & 01 February, 2016**
Visit our website: www.godavariacademy.com and www.ijgsr.com

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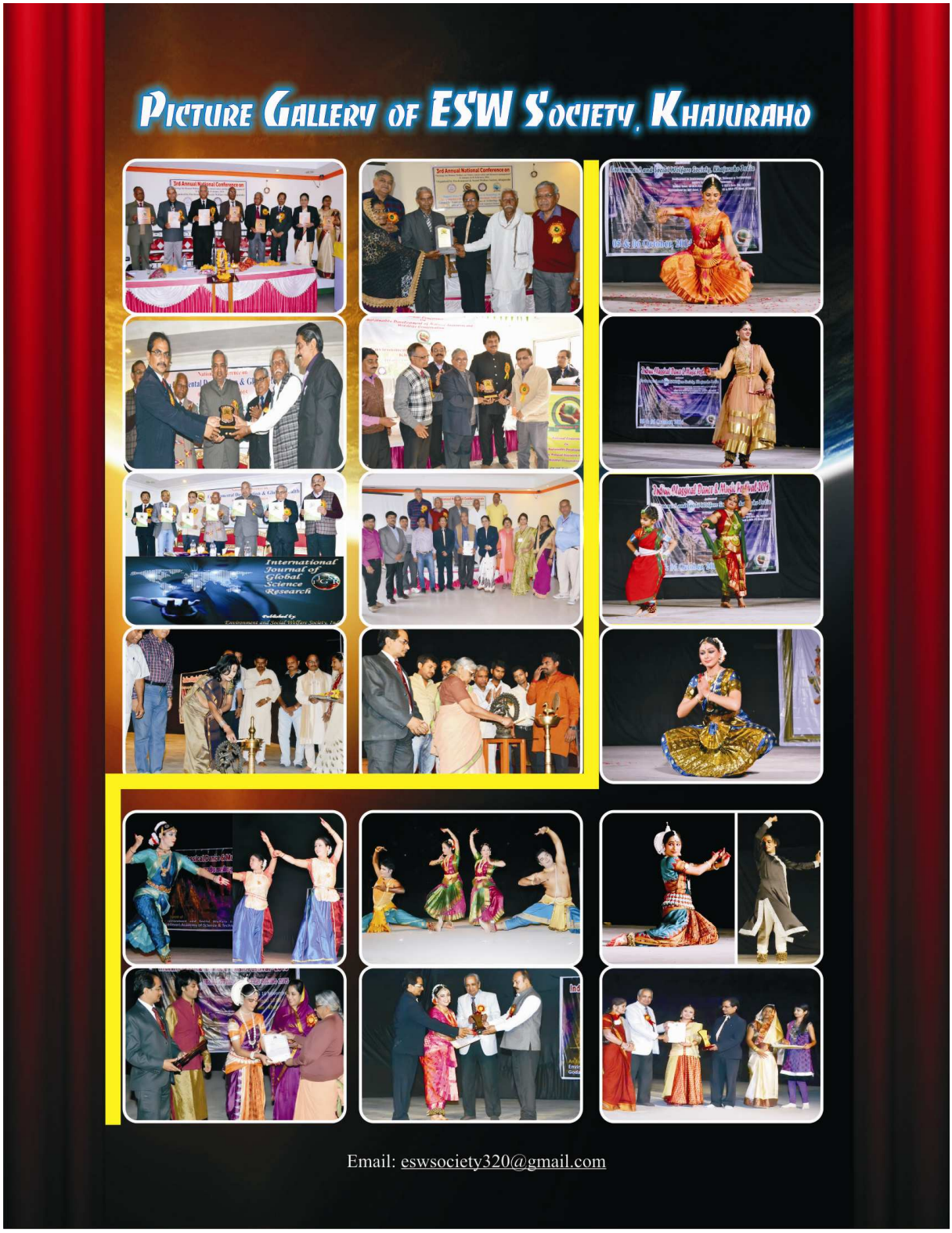
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