Kanoria
PG Mahila
Mahavidyalaya
Jaipur

11. National Conference on Energy, Material and Sustainable Society (EMSS-2018)

Date: 24-01-2018 to 25-01-2018

1. Brochure:

REGISTRATION FORM

I,Dr./Mr./Ms.....

.....

Designation.....

Department.....

.....

Full Postal Address.....

.....

Pin Code .....

e-mail .....

Mobile Number: .....

Whether presenting a paper or not: .....

Will be taking part in the National Conference on Energy, Material and Sustainable Society, scheduled for January 24–25, 2018 at Kanoria PG Mahila Mahavidyalaya, Jaipur. Necessary registration fee remitted through cash / Demand Draft No. ..... Dated ..... of ..... Bank, Place....., payable at Jaipur is attached herewith.

Date: (Signature)

Address for Correspondence:

Dr. Usha Bhatia, Convener
Mobile:9828854754
Department of Physics,
Dr. Kumud Tanwar, Convener
Mobile: 8005942288
Department of Chemistry

Kanoria PG Mahila Mahavidyalaya, Jawahar Lal Nehru Marg, Jaipur - 302004 (Rajasthan).
e-mail: emss2018@kanoriacollege.in
Phone No: 0141-2707539, 2706672

Note:
- Participants are requested to make their own arrangements for accommodation.
- Kindly check website of the college for any updates : **www.kanoriacollege.in**

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Dr. Tripathi S. C., Prof. (Emeritus) GLA University Mathura, UP.
Prof. Tyagi A. K., FRSC, Head, Solid State Chemistry Section, Chemistry Division, BARC, Mumbai.
Prof. Verma P. S., Dept of Chemistry, UOR, Jaipur.
Prof. Vijay Y. K., President, Vivekananda Global University, Jaipur.

NATIONAL CONFERENCE
On
Energy, Material and Sustainable Society (EMSS-2018)
January 24–25, 2018

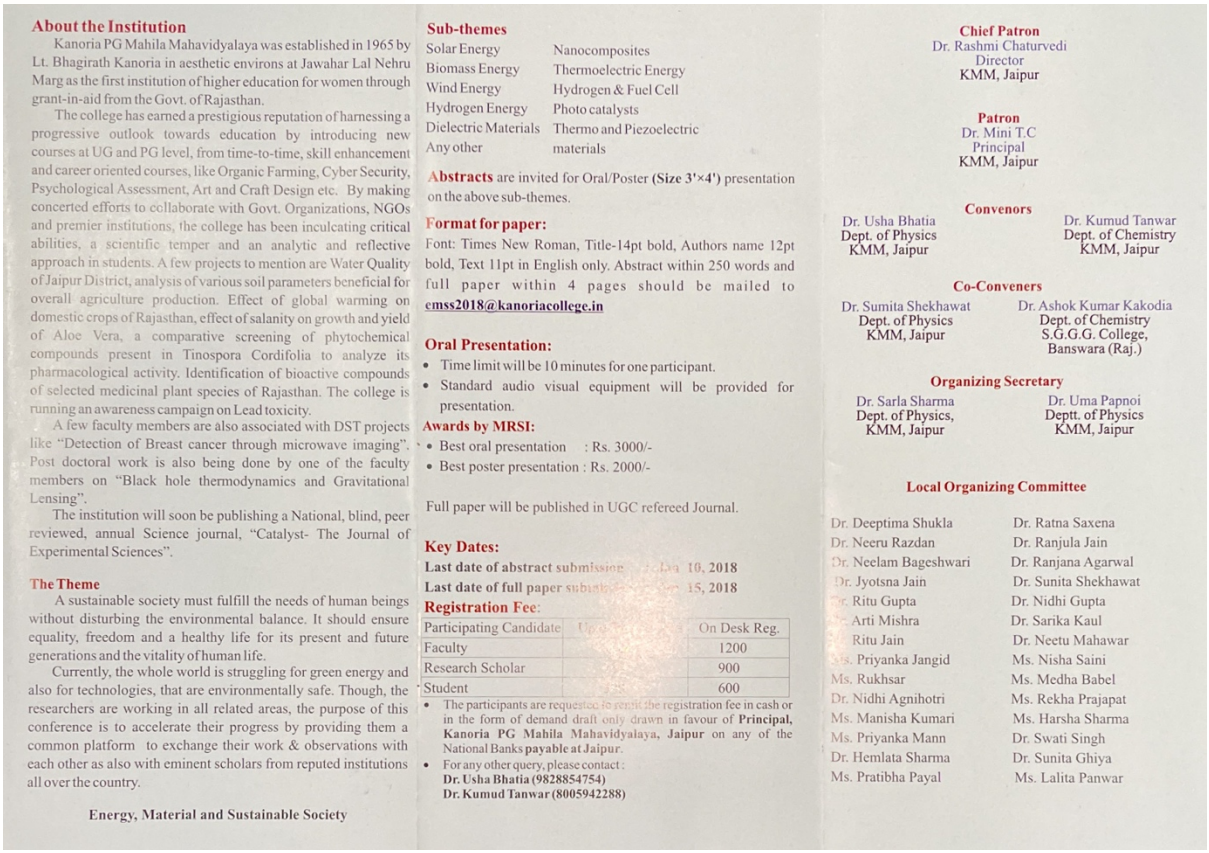
Jointly organized by :
Department of Physics
and
Department of Chemistry
Kanoria PG Mahila Mahavidyalaya, Jaipur

Sponsored by

RRECL

Venue
Kanoria PG Mahila Mahavidyalaya,
JLN Marg, Jaipur – 302015 (Rajasthan)

Kanoria
PG Mahila
Mahavidyalaya
Jaipur



About the Institution

Kanoria PG Mahila Mahavidyalaya was established in 1965 by Lt. Bhagirath Kanoria in aesthetic environs at Jawahar Lal Nehru Marg as the first institution of higher education for women through grant-in-aid from the Govt. of Rajasthan.

The college has earned a prestigious reputation of harnessing a progressive outlook towards education by introducing new courses at UG and PG level, from time-to-time, skill enhancement and career oriented courses, like Organic Farming, Cyber Security, Psychological Assessment, Art and Craft Design etc. By making concerted efforts to collaborate with Govt. Organizations, NGOs and premier institutions, the college has been inculcating critical abilities, a scientific temper and an analytic and reflective approach in students. A few projects to mention are Water Quality of Jaipur District, analysis of various soil parameters beneficial for overall agriculture production. Effect of global warming on domestic crops of Rajasthan, effect of salanity on growth and yield of Aloe Vera, a comparative screening of phytochemical compounds present in Tinospora Cordifolia to analyze its pharmacological activity. Identification of bioactive compounds of selected medicinal plant species of Rajasthan. The college is running an awareness campaign on Lead toxicity.

A few faculty members are also associated with DST projects like "Detection of Breast cancer through microwave imaging". Post doctoral work is also being done by one of the faculty members on "Black hole thermodynamics and Gravitational Lensing".

The institution will soon be publishing a National, blind, peer reviewed, annual Science journal, "Catalyst- The Journal of Experimental Sciences".

The Theme

A sustainable society must fulfill the needs of human beings without disturbing the environmental balance. It should ensure equality, freedom and a healthy life for its present and future generations and the vitality of human life.

Currently, the whole world is struggling for green energy and also for technologies, that are environmentally safe. Though, the researchers are working in all related areas, the purpose of this conference is to accelerate their progress by providing them a common platform to exchange their work & observations with each other as also with eminent scholars from reputed institutions all over the country.

Energy, Material and Sustainable Society

Sub-themes

Solar Energy	Nanocomposites
Biomass Energy	Thermoelectric Energy
Wind Energy	Hydrogen & Fuel Cell
Hydrogen Energy	Photo catalysts
Dielectric Materials	Thermo and Piezoelectric
Any other	materials

Abstracts are invited for Oral/Poster **(Size 3'×4')** presentation on the above sub-themes.

Format for paper:

Font: Times New Roman, Title-14pt bold, Authors name 12pt bold, Text 11pt in English only. Abstract within 250 words and full paper within 4 pages should be mailed to **emss2018@kanoriacollege.in**

Oral Presentation:

- Time limit will be 10 minutes for one participant.
- Standard audio visual equipment will be provided for presentation.

Awards by MRSI:

- Best oral presentation : Rs. 3000/-
- Best poster presentation : Rs. 2000/-

Full paper will be published in UGC refereed Journal.

Key Dates:

Last date of abstract submission : Jan 10, 2018
Last date of full paper submission : Feb 15, 2018

Registration Fee:

Participating Candidate	On Desk Reg.
Faculty	1200
Research Scholar	900
Student	600

- The participants are requested to remit the registration fee in cash or in the form of demand draft only drawn in favour of **Principal, Kanoria PG Mahila Mahavidyalaya, Jaipur** on any of the National Banks **payable at Jaipur**.
- For any other query, please contact :
  Dr. Usha Bhatia (9828854754)
  Dr. Kumud Tanwar (8005942288)

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Director
KMM, Jaipur

Patron
Dr. Mini T.C
Principal
KMM, Jaipur

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Dr. Kumud Tanwar, Dept. of Chemistry, KMM, Jaipur

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Dr. Ashok Kumar Kakodia, Dept. of Chemistry, S.G.G.G. College, Banswara (Raj.)

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Dr. Swati Singh
Dr. Sunita Ghiya
Ms. Lalita Panwar

2. List of resource person/guests:

1. Mr. Arijit Sengupta, Director, Bureau of Energy Efficiency, Ministry of Power, Government of India
2. Prof. Y.K. Vijay, President, Vivekanand Global University, Jaipur
3. Prof. D.K. Awasthi, Director, Amity Institute of Technology, Noida
4. Prof. N.K. Labhsetwar, Senior Principal Scientist and Head, Energy and Resource Management Division, CSIR-NEERI
5. Prof. Deepak Bhatnagar, Head-Department of Physics, University of Rajasthan, Jaipur
6. Prof. P.P. Barke, Ex-Chairman, SEAC, Rajasthan
7. Prof. Y.C. Bhatt, Former Dean, MNIT Jaipur
8. Prof. B.L. Swami, Dean (Academic), MNIT Jaipur
9. Prof. S.C. Tripathi, Associate Director (Research), GLA University, Mathura
10. Prof. Sudhish Kumar, Department of Physics, MLSU, Udaipur
11. Dr. Mahesh C. Sharma, Centre for Advanced Studies, University of Rajasthan, Jaipur
12. Dr. Neelima Gupta, University of Rajasthan
13. Prof. Y.C. Sharma, Dean-R&D, VGU, Jaipur

Kanoria
PG Mahila
Mahavidyalaya
Jaipur

3. Geotagged photograph of the event (2-3 with caption):

26.88635, 75.81223

Participant Providing Feedback During Valedictory

26.88635, 75.81223

Group Photograph of Dignitaries

Chief Patron
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Director, KMM, Jaipur

Patron
Dr. Mini T. C.
Principal, KMM, Jaipur

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Dept. of Chemistry, S.G.G.G.C., Banswara

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Dept. of Physics, KMM, Jaipur

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Dr. Neetu Mahawar
Dr. Nidhi Agnihotri
Dr. Swati Singh

Dr. Neelam Bageshwari
Dr. Nidhi Gupta
Ms. Priyanka Jangid
Ms. Rekha Prajapat
Dr. Hemlata Sharma

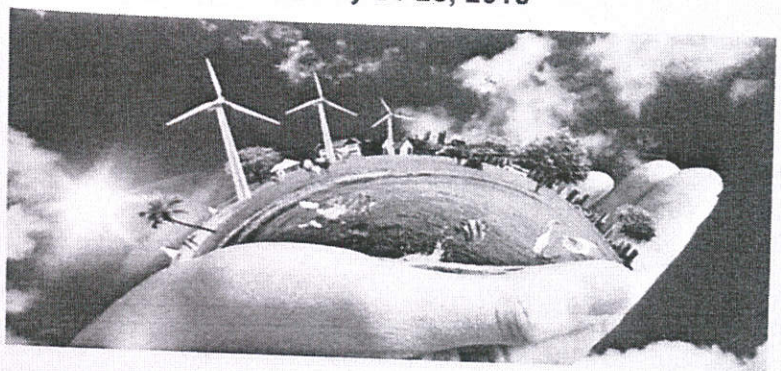
A REPORT

NATIONAL CONFERENCE

on

Energy, Material and Sustainable Society (EMSS-2018)

January 24-25, 2018



Jointly Organized by:
Department of Physics & Department of Chemistry
Kanoria PG Mahila Mahavidyalaya, Jaipur (Rajasthan)

Submitted by
Dr. Sarla Sharma • Dr. Uma Papnoi
Department of Physics, KMM, Jaipur
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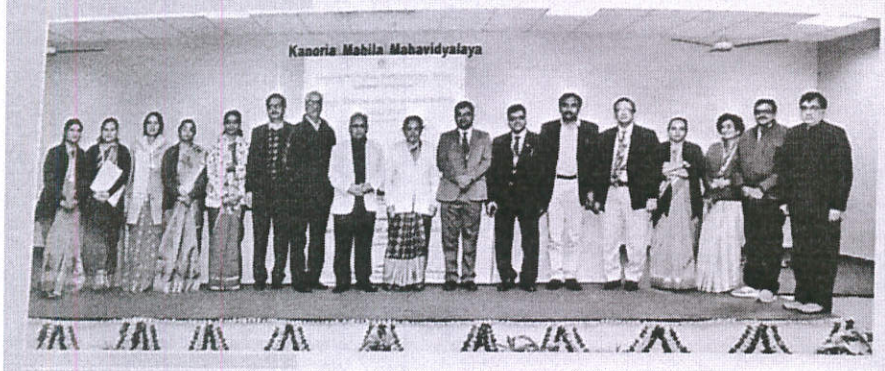
JAIPUR

Lamp Lighting



NATIONAL CONFERENCE

on

Energy, Material and Sustainable Society

January 24 - 25, 2018

Nature has always been reacting to the self-centred actions of human beings. But it's only a few decades back that man started to have a fresh look at the scenario. In the changing perspective, he is forced to adopt Environmental Wisdom World View, which is now one of the major issues of concern at the global level. The challenge has already been accepted by the scientists.

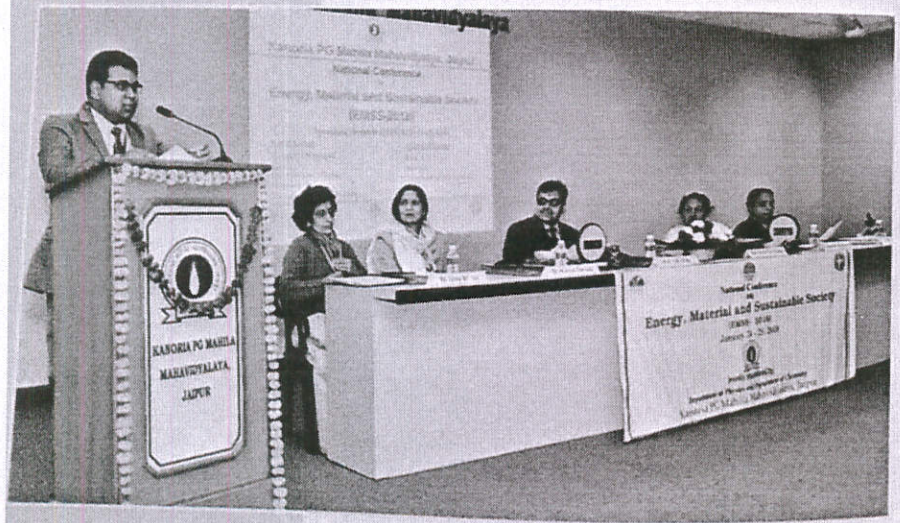
The two-day National Conference was organized with a view to partner with the scientists working on the above issue all over the country.

The institution acknowledges the sponsorship provided by **Rajasthan Renewable Energy Corporation Limited, Rajasthan State Pollution Control Board, Board of Research in Nuclear Sciences and Materials Research Society of India.**

The conference began with a formal welcome by the Principal, **Dr. Mini T. C.** She said that our college is a premier institution contributing to women's empowerment through education and it is a regular feature to hold seminars, conferences and lectures on burning issues of social concern in our institution.

The theme and the objectives of the conference were elaborated by the convener, **Dr. Usha Bhatia.** She stated that scientists need to be innovative, but the technologies developed should be eco-friendly. A lot of work is being done on various renewable green energy resources. The role of nano materials seems to be a major solution for the global environmental challenges by developing green and sustainable processes.

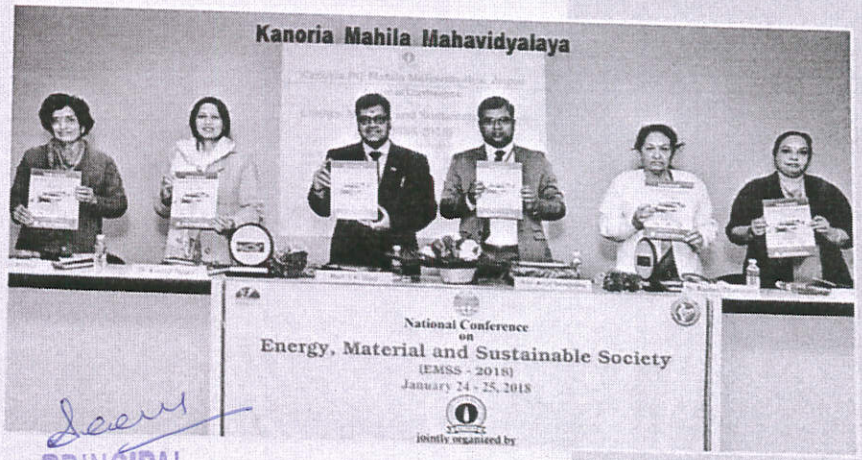
Sh. Arijit Sengupta, Director, Bureau of Energy Efficiency, Ministry of Power, Government of India, inaugurated the Conference as Chief Guest. Being associated with a department, which is already working on energy efficiency for sustainable society, he highlighted various schemes government is planning to implement, to achieve its goals. He



pointed out that the main focus of Government of India is to increase the efficiency of renewable energy resources and the planning is to provide electricity using solar power to the whole population by the year 2020. He emphasized on various schemes to promote materials consuming less energy for the construction of commercial as well as residential buildings and more efficient home appliances. Incentives will be given to industries, which are using energy saving and eco-friendly techniques. In the transportation sector, the plan is to shift to electric vehicles. Gas stoves in the kitchen need to be replaced by induction stoves.

Guest of Honour **Prof. Y. K. Vijay,** President, VGU, Jaipur focused on optimizing our needs, thereby, optimizing energy consumption. He further said that scientists are synthesizing such materials, which absorb & store solar energy with very high efficiency. Much stress was put by him on the use of small saving recycling processes and on devices which consume minimum energy. He concluded by congratulating the conveners for organizing the conference on such a wonderful theme.

The abstract book of the conference was released in the inaugural session by all the dignitaries.



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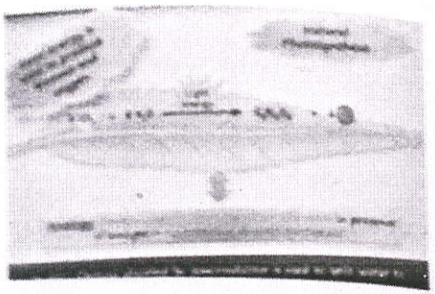
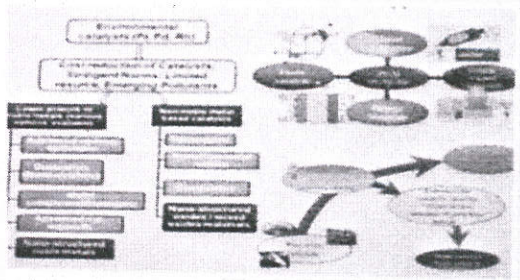
JAIPUR



In the keynote address **Prof. B.K. Avasthi**, Director, Amity Institute of Technology, Noida emphasized on the role of nanotechnology in sustainable society. Prof. Avasthi stated that nanoparticles are size dependent and due to large surface area than bulk materials, they show dramatic change in their physical and chemical properties. In nature, we have nanomolecules in the shape of DNA & RNA in our bodies. In health sector, nanoparticles are being used in cancer therapy. Nanoparticles and tangled drug delivery is being practiced all over the world for cancer therapy. Hyperthermia is used to kill the malignant cells by hysteresis loop heating of magnetic nanoparticles. He discussed about biosensors for detecting Cancer, Dengue, Cholesterol, and Chikungunya. Later he talked about the nanotechnology in material for energy like thermoelectric material, which converts thermal energy into electricity. He pointed out that semiconductor also acts like an artificial leaf in the sense that it can perform the action of photosynthesis. Nanocomposites and nanoparticles can be used for waste water treatment. Finally, he talked about his ongoing work on "Tailoring the thermal conductivity of paraffin wax by nano fillers for thermal storage application".

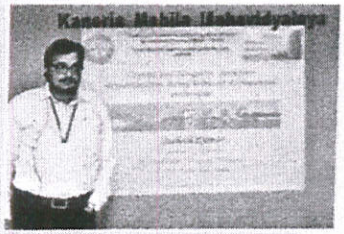
Prof. N. K. Labhsetwar, Senior Principal Scientist and Head, Energy and Resource Management division, CSIR-NEERI concluded the session as chairperson.

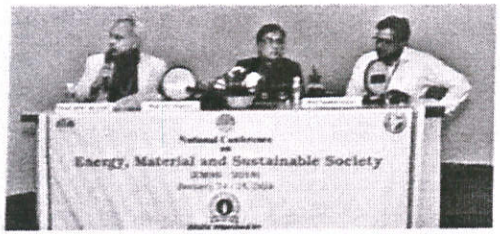
In the first technical session, first speaker, **Prof. N. K. Labhsetwar** talked about the low cost materials for cleaner energy generation and emission control. He emphasized on the global issues like Green house



gas emission, pollution etc. He also threw light on carbon footprint. He said that though, India is entering late into foray of major energy producers and consumers, it will have certain advantages with respect to availability of advanced technologies for achieving better energy efficiency and reduced environmental footprint but at the same time facing some challenges of depleted assimilative capacity to accommodate more emissions especially related to CO_2, NO_x and PM. Balancing these issues in a techno-economically feasible manner, will be a key guideline for India's energy program. He also discussed his ongoing research work related to the development of low-cost materials for cleaner energy generation through Chemical looping Combustion as well control of emissions from automobile exhaust.

Second speaker of the session **Prof. Deepak Bhatnagar,** HoD Physics; Director, CCT; Director, Research, UoR, Jaipur enlightened the participants on "How much safe we are with RF radiations?" Prof. Bhatnagar talked about the microwaves, which are the shortest of radio waves and travel at the speed of light. They are found in the non-ionizing portion of the energy spectrum between radio waves & visible light. These waves are widely used for cooking through microwave oven and for communication through mobile & wireless handsets. Prof. Bhatnagar cleared the misconceptions and myths associated with the use of these appliances. He stated that cancer and tumors are not caused by microwaves, however, these waves can stimulate their growth. Through this talk, he tried to establish the fact that if we are using these appliances safely & correctly, they are boon to us, whereas their incorrect use will be dangerous. Mobile phones are quite safe with the use of earphones and if kept away from the body, when not





in use. After the talk, **Dr. Usha Bhatia**, Convener, appealed to the young scientists to keep themselves updated about the merits and demerits of mobile phones and microwave ovens.

Prof. Y. K. Vijay concluded the session with words: Though, with the use of microwaves, our lives have become more comfortable, but at the same time, we have to be aware of the quantitative estimate predicted for safety limit of their use.

Second technical session of the conference was chaired by **Prof. D. K. Avasthi**. It comprised of two invited talks. In the first talk, **Prof. Sudhish Kumar**, Magnetism Laboratory, Department of Physics, MLSU, Udaipur spoke on the "Crystal & Magnetic structures determination using Rietveld Refinement technique". He stated that Spinel ferrites and Perovskites are technologically attractive materials and their electrical, optical, chemical and magnetic properties can be controlled/tailored by chemical substitution of their constituent elements. Chemical and physical properties of these materials are strongly dependent on their crystal and magnetic structures. Correct and accurate determination of the crystallographic parameters of a material is prerequisite for the technological applications. Over the years Rietveld profile refinement technique has been widely used for the determination of crystal and magnetic structures of crystalline materials. He discussed about the basics and applications of Rietveld profile refinement technique for the determination of crystal and magnetic structures of few ferrite and perovskite samples using the powder X-ray/neutron diffraction patterns. The interplay between the reliability parameter and fitting of the background and Bragg peaks along with the pit-falls in the measurements and data analysis was briefly discussed.

Second speaker, **Prof. Y.C. Sharma**, Dean, Faculty of Basic and Applied Sciences; Dean, Research & Development, Department of Physics, VGU, Jaipur, talked about the thermoelectric materials and waste heat harvesting. He discussed about the importance of energy management. He said that, energy harvesting is not a new concept. A lot of sources are available and the most common answer is thermoelectric effect. It is a direct conversion of temperature gradients into electric voltage. As the electronic systems are becoming denser due to shrinkage in the size of components, heat dissipation in modern devices continues to be a challenge, as the heat generated can be quite large for the small area of usage. Hence thermal management has become necessary from the beginning of the design process. Lateral configuration (thin filter) of thermoelectric materials has provided a possibility to scale down the thermoelectric devices to micro and nano dimensions with performance similar to that of bulk materials. Nano-scale tellurium based materials are expected to make a breakthrough in the present era technology. Hence, fabricating high quality tellurium based nanomaterials and further understanding their growth mechanism and improving their performance is need of the day. This task is quite challengeable but key to realize real applications in power generation and refrigeration. He also discussed fabrication of some thin film structures and their characterization.

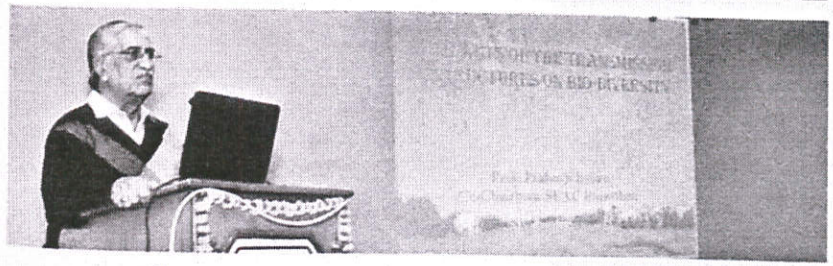
Prof. D. K. Avasthi concluded the session as Chairperson by extending his gratitude to the speakers for their valuable deliberations.

The end of the first day witnessed first oral presentation session chaired by **Prof. Y. C. Sharma**. This session comprised of nine presentations. First presentation of the session was by **Mr. Ganesh Lal** on "Influence of Zn concentration on the optical and magnetic properties of Cobalt - Zinc nanoferrite". **Ms. Harsha Sharma** presented her work on "Synthesis and characterization of Bismuth Selenide and its thin films". This presentation was followed by work done by **Ms. Khusboo Punia** on "Influence of Gd substitution on the

structural, optical band gap and photoluminescence properties of ZnO nanoparticles". **Ms. Manisha Kumari,** in her presentation discussed about the "Study of electrical properties of multilayers of Bi2Te3 and Sb2Te3 compounds". **Ms. Rekha Prajapat,** spoke on "Growth and Characterization of Cu2ZnSnSe4 thin films". **Mr. Pradeep,** talked about the "Adsorption of toxic metals on modified Zeolite and industrial wastewater and effect of pH on adsorption of Cu(II) on Zeolite". **Dr. Yogita Madan,** presented her work on "Nanotoxicological effects of Silver nanoparticles". **Dr. Divya Prakash** spoke on "Studies of O2 pretreatment on the formation of Chlorinated phenolics in nonwood pulps". Last presentation was given by **Dr. Mahima Sharma** on "Kinetic and Mechanistic study of Ofloxacin in aqueous acidic medium".

Prof. Y. C. Sharma, concluded the session with his thought provoking words, and appreciated the work of all the participants.

Second day started with the third technical session of the conference. **Prof. P. P. Bakre,** Ex Chairman, SEAC, Rajasthan focused on "Impacts of Power Transmission Structures on Biota". He said that large transmission line configurations with high voltage and current levels generate large values of electric and magnetic field stresses which affect the human beings and nearby biota. Scientists claim that ultraviolet light from the power lines interact in a destructive way with natural EMF that exists within animals and plants. They interfere with cell functions, break DNA strands and erode the immune system. It has been studied that the response of the crop to EMF from 110KV to 230KV power lines showed variations among themselves. Animals build nests around transformers perhaps attracted by heat. High voltage power lines cause breathing problems and weakened system in cows and pigs. Dogs and cats exposed to high EMF levels give birth to deformed puppies and kittens and have abnormal unbreedable seasons, and show risks of



lymph cancer 6.8 times the expected rate. Flamingos are dropping dead in one of their favorite breeding grounds on earth. In the saline flats of Gujarat, the birds accidentally collide with or get electrocuted by high-tension cables and telephone lines that pass over their breeding grounds in the Rann of Kachchh. Flying-foxes have a large wingspan (over 1 meter), but they are also excellent climbers using the clawed thumbs on the wrists of their wings. They will generally climb to move about in a tree once they have landed. Unfortunately this gets them into trouble on overhead power lines. However, the biodiversity below the transmission lines is much greater than in the surrounding forest for the groups of animals and plants studied.

Next talk of the session was delivered by **Prof. S. C. Tripathi,** Associate Director (Research), Institute of Engineering and Applied Sciences, GLA University, Mathura on the topic "Application of Green Chemistry towards Sustainability". He said sustainable economic growth is nothing but the economic development that attempts to conserve the nature and environment for future generation. The focus of Green chemistry is on the invention, design and application of chemical processes and products that lead to better atom economy of production by elimination/ minimization of hazardous and toxic substances as waste. Application of green chemistry and technology leads to economy of industrial production by obviating the regulation, control, cleanup and remediation processes. The approach involves avoidance of solvent in chemical synthesis driven by concept of atom economy, use of Microwave and biocatalytic process of production etc. He focused on Sustainable Development Goals in Nuclear Power Programs (SDG). The strategies are to broaden resource base, expand electricity supplies, increase world's stock of technological and human capital. The goals include no poverty, no hunger, good health, quality education, gender equality, clean water and sanitation, affordable and clean energy etc. Some green approaches in Nuclear industry include safe management of liquid and solid waste, zero discharge of radioactivity, safe practices of power generation and in Fuel reprocessing include maximizing the use of reagents, minimizing waste generation and replacing chemical method of analysis with physicochemical one. He

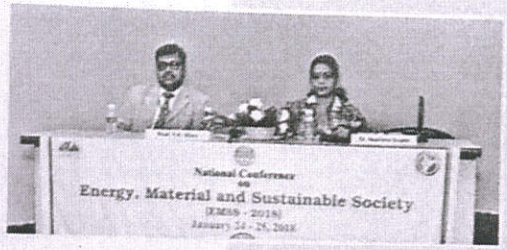
concluded his talk with a quote: 'Green Chemistry: Lesser the hazard, greater in Longevity'.

Dr. Mahesh C. Sharma, Associate Professor, Natural Products Laboratory, Centre for Advanced Studies, UoR, Jaipur concluded the session as chair person by making a very important remark that the duty of a scientist is also to pressurize policy makers to work on only those policies which are eco-friendly.

Second oral presentation session started with a presentation by the youngest participant, **Ms. Avani Jha,** a student of Class XI, Aditya Birla Public School, Jodhpur. She spoke on "Geothermal Energy", and was highly appreciated by all the eminent scholars present. As a token of appreciation for her special presentation, she was awarded with a certificate and a memento by the organizers. **Dr. Neetu Mahawar** presented her paper on "Bioethanol from Agro waste: A new eco-

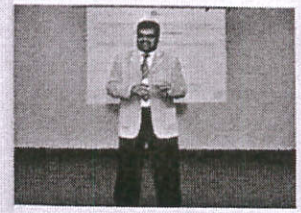
friendly energy resource". In the next presentation **Dr. Nidhi Agnihotri** talked about the "Graphene nanoplatelet". **Ms. Neha Sepat** spoke on "Bio inspired bilayer metal mesh for transparent conducting electrode application". **Mr. Satyavir Singh** presented his work on "TiO2 based transparent conducting oxide multilayer films". **Dr. Manju Meena** presented her work on "Leaching of Ca and Fe in alkaline soil". Last presentation of the session was given by **Mr. Rajesh Mathpal** on "Association between averages HSSW and SSSW with DST and proton flux during 2005-2009".

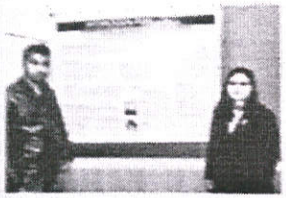
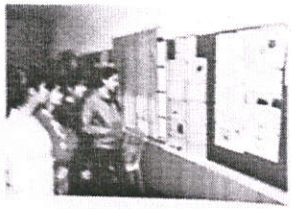
Prof. P. P. Bakre summarized the session as Chairperson and thanked all the participants to present their work in the session.



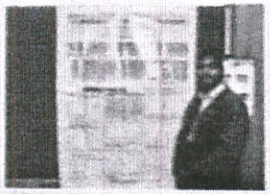
Last technical session of the conference was chaired by **Dr. Neelima Gupta,** Coordinator, UGC Centre for Advanced Study in Chemistry, UoR, Jaipur. In this session, **Prof. Y. K. Vijay** spoke on polymer composites as sustainable material and introduced polymers as passive materials, long chain molecular structures of mainly Carbon, Hydrogen, Oxygen. He said that the polymers can be made active for specific application by suitable doping, dispersal or mixing and blending. The polymer nanocomposites can have appreciable mechanical and electrochemical properties. Their optical band gap can be varied from 0.5 eV to 3.5 eV. The glass transition temperature and dielectric properties can also be varied to large extent. The materials can be processed at low temperature and useful devices can be fabricated for energy conversion, storage and sensor applications. Carbon nanotubes dispersion and alignment in polymer matrix was elaborately discussed, along with its applications like cathode ray tube, detectors and sensors, LCD display, LED, household fluorescent lamps etc.

The session was concluded by the chair person with a thought of working on renewable and environmentally safe energy resources and development of an eco-safe technology.








Post lunch session was for poster presentations and 13 participants from different universities presented their work.

Oral and poster presentations were judged by **Prof. P. P. Bakre** and **Dr. Sarla Sharma.**

In the Valedictory session **Dr. Mini T. C.,** Principal, KMM, Jaipur gave welcome address. She expressed her gratitude towards all the eminent scientists who shared their knowledge on the theme and helped to make the conference meaningful and memorable for all the participants.






Valedictory address was delivered by **Prof Y. C. Bhatt,** Former Dean, Research and Development, MNIT, Jaipur. He emphasized on developing technologies for generating energy at low price. He appreciated the theme of the conference and shared his experiences to motivate the young researchers in this area. **Prof. B. L. Swami,** Dean, Academic Affairs, MNIT, Jaipur was the guest of honour of the session. He extended his thanks and congratulated the whole team for organizing the conference on such a major global issue and requested the conveners to work upon the recommendations of the conference for the welfare of society.

The proceedings of the conference were presented by **Dr. Sumita Shekhawat,** Co-convener. She said that, though the conference is being formally concluded, we are sure young scientists would be carrying lots of innovative ideas with them to satisfy their academic appetite. She hoped that the conference met all the expectations of the participants.

Best presentations, **Ms. Neha Sepat** from MNIT, Jaipur in Oral category and **Ms. Juhi Mahendra** from IIS University, Jaipur in Poster category, were awarded by the Materials Research Society of India.

Dr. Namrata Sengar, a participant from Department of Physics, University of Kota, shared her two days experience in the conference and expressed that these events are good platforms to interact with eminent scientists and researchers and to help everyone to get a genuine feedback from them, thereby, accelerating their research work.

The conference concluded with a vote of thanks by **Dr. Uma Papnoi,** the Organizing secretary. She conveyed her gratitude towards all guests for honouring the event and the organizers by their presence in the conference. She expressed her gratitude towards all the participants, who came from different parts of the country and to the organizing team, who had been working day and night for the success of the event for the past six months.

The two days National Conference concluded with the National Anthem.

Following conclusions, in the form of recommendations, are being submitted to concerned agencies:

1. A society must be sustainable in order to preserve life on the planet.
2. Adoption of Environmental Wisdom World View seems to be the only solution.
3. Though governments, policy makers, economists, scientists world over have already accepted the challenge and started working on this, yet the progress needs to be accelerated more so as to compensate for the environmental deterioration that has already occurred and even go beyond.
4. For this, scientists need to join hands to work together as a group.
5. Young scientists should be motivated to come forward with innovative ideas on the theme.
6. To give incentives to young scientists, Government of India announces every year, a number of schemes and awards. But due to lack of awareness, most of deserving candidates are not benefitted. Therefore, such schemes should be made more public through social media.
7. Campaigns should be held for creating awareness in the common man to get associated with this activity by optimizing their needs, thereby, optimizing energy consumption.
8. Scientists should pressurize policy makers to work on only those policies that are eco-friendly.
9. Government of India is focused on increasing the efficiency of renewable energy resources.
10. Various schemes to promote materials consuming less energy for the construction of commercial as well as residential buildings and more efficient home appliances are being planned.
11. In the transportation sector, the plan is to shift to electric vehicles.
12. Gas stoves in the kitchen need to be replaced by induction stoves.
13. Government is planning to give incentives to industries, which are using energy saving and eco-friendly techniques.

Dr. Usha Bhatia
(Convener)