

Reports of the rapporteurs – Dr. I. Arul Aram and his research scholars

45TH INDIAN SOCIAL SCIENCE CONGRESS

DAY 3 – 30 MARCH 2022

PLENARY SESSION IV: ENVIRONMENT, ENERGY AND HEALTH

Speaker: Dr. V.N. Bhoraskar

Title: Treatment of wastewater and analysis of environmental pollution by radiation technology, with focus on human health

The theme of this presentation was on how to clean wastewater. The traditional methods for treating polluted water was discussed. The need for using radiation technology for waste water treatment, the methodology and the benefits were shared. Radiation technology uses gamma rays, x-rays and UV rays for treatment of wastewater. This method is effective to treat both organic and inorganic wastes present in polluted waters. The advantage it has over biological methods is that the time taken for degradation of the waste is much lesser and it can also treat organic wastes which cannot be degraded biologically, physically or chemically.

Speaker: Dr. Shakeel Ahmed

Title: ‘Putting groundwater into the mind of people; making visible is not enough’

27th March is celebrated as the World Water Day. The theme for this year being, ‘Groundwater- Make visible the invisible’. He spoke about enhancing groundwater recharge, research and implementation. He also spoke about the EM method which gives a quick and continuous imaging of the groundwater scenario.

Speaker: Dr. Sudha Bhoraskar

Title: Application of plasma for municipal waste management with energy as a by-product

Plasma is the fourth state of matter. Heating gas produces plasma which comprises ions, electrons etc., She talked about the plasma gasification technology being used for municipal waste management. This method is environmental friendly, does not require segregation and release high amounts of energy that is used to produce steam and generate electricity.

Speaker: Mr. P. Sainath

B. V. Rangarao Memorial Lecture

Delivering the fourth B.V. Rangarao memorial lecture at the 45th Indian Social Science Congress held at B. S. Abdur Rahman Crescent Institute of Science & Technology, Mr. P. Sainath outlined the contributions of luminaries like Raja Ram Mohun Roy, Mahatma Gandhi, Bhagat Singh and Babasaheb Ambedkar to the field of journalism, which in their times was a calling or a service to the society and an instrument of their commitment towards upliftment of the downtrodden of the society and for social development.

Mr. Sainath also noted the currently prevalent apathy towards issues of social development, especially that of farmer's suicides, in the wake of increasing drive towards profit-making. He expressed disappointment at the commercialization of journalism and said that there is a need to refrain from using the terms 'journalism' and 'media' interchangeably. He called out the lack of discipline in the field, while noting that there is a notion that the profession or discipline is believed to be the most interdisciplinary of all disciplines.

According to Mr. Sainath, good journalism is that which engages with great processes of the times. It needs to evolve as a method of storytelling in which people's lived experiences need to be accounted for. He further said that rainfall data needs to be properly recorded and is critical in India. Journalism in India should stop imitating the doctrines of North American journalism and should follow that form of objectivity which provides the impetus to exercise personal integrity and honesty in dealing with subjects to the best of one's knowledge. He said that journalism should not be only about reporting facts but in bringing out the nuances of an issue through analysis. He further opined that good journalism should be one that creates a platform for a society or a nation to be in conversation or argument with itself.

Paper Presentation – Journalism & Communication – Research Committee 8

On the second day of the session for the 'Communication and Journalism', four scholars presented their papers, the summary of which is as follows:

Parama Gupta and Dr. I. Arul Aram presented a paper titled 'A study of ecological discourses in the films 'Interstellar' and 'Young Ones'. The paper focused on the various social and cultural messages deciphered through the narratives of the two films with respect to climate change.

Felix Arokiya Raj and Dr. I. Arul Aram presented a paper titled 'Coping with Online Learning Failure: Negative emotions, Affective commitment, and Learning from failure.' The paper focused on investigating the model of coping with online learning failure with the help of four constructs namely negative emotions over academic failure, learning from failure experience, perceived institutional normalization, and Affective commitment.

Amalan Arokiaraj A and Dr. I. Arul Aram presented a paper titled 'A review on Occurrence of Water, Energy and Food Nexus approach towards Sustainable Development.' It focused on the review of literature on the subject of the interconnection between the three important resources of water, energy and food and how their achievement is interdependent.

Satish Radhakrishnan and Lavanya Rajendran presented a paper titled 'Teenagers' information security assessment and its implications'. Their study revealed minimal security awareness among college students.

Paper Presentation – Ecological & Environmental Science – Research Committee 11

The Chair-person of the committee, **Dr. Rana Pratap Singh**, delivered an eye-opening speech on the topic, 'Redesigning ecosystems for sustainable development through green cyclic ecosystem'. He insisted on the idea that novel STI and policy interventions are essential for achieving Agricultural sustainability. UN has announced this decade as the decade of Eco-restoration. In order to restore the ecosystem, knowledge of the ecosystem over the past years are mandatory. Since such knowledge is unavailable, redesigning the ecosystems are a better option to recover the degraded ecosystem.

Dr. Mohan Singh Jhangra, presented his paper on the title, 'Rainfall Zoning and its trend analysis for fruit production in north-west India'. The weather data for a period of more than 30 years from 22 meteorological stations located in the arid, semi-arid and human agro-climatic zones in the hills and plains of north-west India were used in the study. The results show a decreasing trend in 8 stations during the effective growing period of the temperate fruits and increasing trend in 14 stations. These findings of his paper could help farmers, researchers and planners to devise different strategies to enhance crop production.

Dr. Gupta Yamal, presented her paper titled, 'Assessment of heavy metals in sewage sludge'. Large quantities of effluents are produced from households and industries. The effluents are treated at the sewage treatment plants and sludge is produced as a by-product. The sludge is then disposed as land dumps and land fill. They are also disposed in

agricultural lands, believing that it enhances organic fertility and reduces the use of synthetic fertilizers. She suggested that sewage sludge has to be analysed and judiciously used due to presence of heavy metals, which is a matter of concern. The presence of heavy metals in the sewage sludge has adverse impacts on the soil microbial community. She also discussed the options of sewage sludge stabilisation and disposal methods adopted in other countries.

Hephzibah Esther Simon, presented her paper titled ‘Perceptions of Muttukadu backwater fisherfolk with regard to sustainable livelihood framework. Fisherfolk, especially the inland fishers are the most vulnerable group to poverty and environmental degradation. The informal interviews conducted among 20 fisherfolk at Muttukadu backwater were analysed based on SLF. The results revealed that all the 20 respondents were unhappy about their livelihood status. Out of the 5 essential assets for sustainable livelihood, the respondents showed a strong physical capital. Need for transforming structures, policies and strategies were discussed to improve sustainable livelihood outcomes.

Prakriti Dadial, presented her paper titled, ‘Western disturbances dynamics in Himachal Pradesh in context to climate change’. The Himalayas has an important role in Indian weather and climate, since they control western disturbances during the winter and the south-west monsoon during summer. The total duration of western disturbances in Himachal Pradesh per year was showing a decreasing trend and the total rainfall brought by western disturbances in the state was decreasing at a rate of 0.049 mm per year. These findings would help the farmers and other stakeholders to reschedule their cropping pattern.

Neha Verma presented her paper titled, ‘Frequency and trends in rainfall extremes over Shimla in context of climate change’. Shimla the queen of hills spread across seven hills in the north-west Himalayas. Her findings suggested that the annual average of rainy days was decreasing at the rate of 0.375 days per year. Studies on the trends of rainfall extremes is essential for farmers, orchardists and stakeholders to plan cropping pattern.

Praba presented her paper on Ecocritical ethics and human psyche: A comparative study of Arundathi Roy’s ‘Ministry of utmost happiness’ and Ruth Ozeki’s ‘My year of meats’. She discussed the three perspectives of ecocriticism – domination mode, caretaking mode and biocentric mode. She concluded by quoting Ozeki, ‘you can’t make something you can’t imagine first’.

Paper Presentation – Home Science – Research Committee 16

- 1. Y.Ismail, L.H.Thameemul Ansari, Haja Nazeer Ahamed, M. Vijaya Vara Prasad**
Evaluation of quantity of salt utilization among hypertensive patients
- 2. Dr.R.A.M.Jainaf Nachiya, Dr. S.Parimalakrishn an, N.Irfan and Arjumand -**
Identification and Categorization of Drug Therapy Problems (DTPs) in Systemic hypertension with Type 2 diabetic patients (T2DM) at Tertiary care Teaching Hospital, South India – A Cross Sectional retrospective study
- 3. Tryphena R, Dr. I. Arul Aram –** Communication of sustainable clothing content on social media
- 4. Srinivasan.M, Ismail.Y, Vijaya Vara Prasad.M –** Role of dietary supplement usage among the patients with chronic kidney disease
- 5. Prayadarshini, R. Durga and Beatrice, D. Annette –** Hand grip strength and nutritional status of male industrial workers: a cross sectional study.
- 6. MR.Voleti Vijaya Kumar, Y. Ismail, M.Vijaya Vara Prasad -** A survey -
Evaluation of the nutritional habits among students
- 7. N. RAJA, Shanmuganathan –** Development of spectroscopic method for estimation of Verapamil Hydrochloride