



46TH (INTER) NATIONAL SYSTEMS CONFERENCE
Evolution of *Homo Sapiens* to *Homo Spiritualis* for Better Worldliness



Organized jointly with

**THE 5TH INTERNATIONAL CONFERENCE ON DAYALBAGH (ART) SCIENCE
(& ENGINEERING) OF (EVOLUTIONARY/RE-EVOLUTIONARY) CONSCIOUSNESS**

Tuesday – Thursday, 27 – 29 June 2023

Program Schedule for Contributed Papers

DAY – 1 (Tuesday, 27 June 2023)

07:00 AM – 08:00 AM (IST)

Oral Presentations Session 1: Consciousness-based and Literary Systems

Chairs: Prof. Sukhdev Roy, Prof. Vandana Sharma

1. Better Worldliness: A way of lifelong development from maternity to eternity by **Ira Das**.
2. Systems theory and literature: Application of interpretive structural modeling to Badal Sircar's Bhoma by **Chhabi Seth, Bani Dayal Dhir**.
3. The pursuit of completeness in Girish Karnad's Hayavadana by **Sonal Singh, Deepali Seth**.
4. Environmental awareness, psychological wellbeing, and spiritual values: A correlational study by **Shivani Gautam, Kavita Kumar**.
5. Human to Superhuman: Evolutionary early childhood development at Dayalbagh Agroecology fields by **Amritanjali Swaroop, Arati Swaroop, Anjoo Bhatnagar**.
6. Analyzing frequency-specific connectivity and small-world network topology during ultra-transcendental meditation: an MEG study by **Damiseti Geeta Prem Chandoo, CM Markan, Sona Ahuja, Manjari Tripathi**.

08:00 AM – 09:00 AM (IST)

Oral Presentations Session 2: Agroecology-cum-Precision Farming Systems

Chairs: Prof. GP Satsangi, Dr. Bhupinder Singh

1. FISM-FMICMAC based study on the interactions of technology adoption challenges in dairy farming by **Hans Kaushik, Rohit Rajwanshi**.
2. Enrichment of Panchagavya based organic liquid fertilizers and its evaluation through field trials by **Pranshi Goyal, Sheetal Bhasin, Ankita Singh, Nisha Mathur, Anjitha Krishna PR**.
3. Fortification of cattle milk using juice and dried powder of beetroot (*Beta vulgaris* L.) by **Nishi Sharma, Bhopal Singh, Santendra Kumar Soni**.
4. Permaculture: Transformation of barren land into food park (Khasra-359) Dayalbagh, Agra by **Jeetendra Singh, Santendra Kumar Soni, Preksha Shrivastav, Rachna Shrivastav**.
5. Botanical Diversity Park REI (Dayalbagh): An initiative towards the biodiversity conservation by **Preksha Shrivastav, Santendra Kumar Soni, Jeetendra Singh**.
6. Smart crop health monitoring system: An AI-powered approach to enhance agricultural productivity and sustainability by **Rohit Singh, Rishabh Kumar, Shikhar Pathak, Satyam Sharma, Priya Asthana**.

09:00 AM – 10:00 AM (IST)

Oral Presentations Session 3: Engineering Systems

Chairs: Prof. DK Chaturvedi, Prof. Rajeev Kumar Upadhyay



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1. Magnesium Ferrite ($MgFe_2O_4$) thin films for photoelectrochemical water splitting: Effects of film thickness and annealing temperature by **Kumari Ruchi, Bhanupriya, Anupam Srivastav, Rohit Shrivastav.**
2. Study on parametric effect of low-cost extrusion additive manufacturing technology (EAMT) on properties of domestic parts by **Abhishek Raj, Bobby Tyagi, Tapish Raj, Pushendra Yadav, Ankit Sahai, Rahul Swarup Sharma.**
3. Structural behaviour of carbon fibre reinforced poly-ethylene terephthalate glycol by fused filament fabrication **Akash Jain, Ankit Sahai, Rahul Swarup Sharma.**
4. Towards automating commentary generation in a cricket match using video analysis by **Mauj Mubarak Mishra, Aarat Satsangi, C Patvardhan.**
5. Compressive strength analysis of cement stabilized rammed earth block reinforced with jute fibres by **Pankaj Singh, Saurav Sharma, Surendra Kumar Sharma, Ravi Baghel, Tanishq Sharma, Nitin Chaudhary, Randeep, Balvinder.**
6. A comparative analysis of GA and PBIL for solving the TSP by **Khushi Sharma, Naincy Kumari, GS Sailesh Babu.**
7. Applying systems approach to engineering pedagogy for a sustainable future by **Shradha Kishore, Kushal Kishore, Kushagra Kishore.**
8. Circumventing the health hazards of whole-body vibrations via a vehicle speed advisory system by **AV Satyanarayana, C Patvardhan, Prem Prakash Vuppuluri.**

DAY – 2 (Wednesday, 28 June 2023)

07:00 AM – 08:00 AM (IST)

Oral Presentations Session 4: Environmental Systems

Chairs: Prof. Rohit Srivastava, Prof. Shabad Preet

1. Changes in temporal distribution of rainfall using precipitation concentration index in a watershed of Mahanadi River basin, India by **Priyanka Gunjan, SK Mishra, Anil Kumar Lohani, Surendra Kumar Chandniha.**
2. Atmospheric effects on the cosmic ray detectors at DEASA by **Shivam Kulshrestha, Sonali Bhatnagar.**
3. The impact of biomass burning on the oxidative potential of PM_{2.5} at Dayalbagh, Agra by **Muskan Agarwal, Isha Goyal, Gunjan Goswami, Simran Bamola, Anita Lakhani.**
4. Design of kitchen waste compost bin for Indian household by **Gaurav Verma, Munishwar Kumar Mathuria, Reeturaj Gupta, Monu Sharma, Sahil Kumar, Sumit Kumar Chaurasia, Pradeep Singh, V Rao Pantangi, Ishant Singhal.**
5. Health risk assessment of volatile organic compounds from rural kitchens by **Neelam Baghel, Kirti Singh, Anita Lakhani, Aparna Satsangi, K Maharaj Kumari.**
6. Garbage disposal detection from mobile vehicle by **Khushi Sharma, V Prem Prakash.**

08:00 AM – 09:00 AM (IST)

Oral Presentations Session 5: Information and Communication Systems

Chairs: Prof. Sandeep Paul, Prof. GS Sailesh Babu

1. Clustering-based heuristics for Euclidean Leaf-constrained Minimum Spanning Tree generation by **Neha, Kajal Agarwal, Priyanka Yadav, C Vasantha Lakshmi, V Prem Prakash, C Patvardhan.**
2. A study to assess efficacy of adrenaline based intuitive hormonal therapy in critical medical conditions using Electro-Photonic imaging by **Arati Swaroop, Dayal Pyari Srivastava, Anjoo Bhatnagar, SK Satsangi.**



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3. Brain tumor detection and segmentation system using deep learning approach by **Mehar Prateek Kalra, Gufran Ahmad.**
4. Deepfake detection using a hybrid CNN-LSTM approach by **Rani Biswas, Rajat Mani Tripathi, Rashmi Rani, Navneet Mishra.**
5. Improved laser welding process of battery manufacturing through image processing by **Sahaj Gupta, Gufran Ahamad, Tanmai Kulshreshtha.**
6. Optical character recognition of text in textured and newspaper images by **Sarika Singh, C Vasantha Lakshmi, C Patvardhan.**

09:00 AM – 10:00 AM (IST)

Oral Presentations Session 6: Healthcare and Education Systems

Chairs: Dr. Anjoo Bhatnagar, Prof. Nandita Satsangee

1. Nutrition as a key component in enhancing cognitive ability by **Shubhra Saraswat, Karuna Singh.**
2. Reinforcement effects on the flexural and compressive behavior of poly lactic acid composite utilized for low cost transtibial prosthetic by **Bobby Tyagi, Abhishek Raj, Ankit Sahai, Rahul Swarup Sharma.**
3. Novel method for large volume suppression and synchronized excitation of human heart with light by **Gur Pyari, Himanshu Bansal, Sukhdev Roy.**
4. Anthropometric study of different diet consuming population by **Prity Mehta, Karuna, Sanjay Yadav.**
5. Mediating role of consciousness in the relationship between resilience and happiness among healthcare professionals by **Preet Kumari, Jincy Cherian.**
6. CSR in educational infrastructure: mapping initiatives to outcomes by **Purnima Bhatnagar, Anoop Srivastava, Mukti Sri Narain, Samiksha Dabrai, Amoli Tadiparthi, Madhu Bhatnagar, Radhika Tadiparthi.**
7. Working memory and mathematical abstraction ability of middle school students by **Shubhi Garg, Sona Ahuja.**
8. Design and development of educational computer games for young children by **Aman Pratap Singh, C Vasantha Lakshmi, C Patvardhan Anthropometric.**

07:00 AM – 10:00 AM (IST)

Poster Presentation Session

Chairs: Prof. Pravin Saxena, Prof. K Santi Swarup, Prof. Kamal Srivastava, Prof. D Ganeshwar Rao

1. Implementation of COVID patient health monitoring system using IOT by **Naveen K, Fayaz Ahamed Shaik, Joshi Mani Kiran V.**
2. Nature's sounds to deep listening by **G Mathur, S Mathur, A Taneja, B Mathur, M Saran.**
3. Numerical feasibility analysis of selection of thermal storage design and material for 24x7 operations by **Vishal Bhasin, Saurabh Sikarwar, Ashok Yadav.**
4. Effects of electrolyte pH in LaFeO₃ thin films for efficient photoelectrochemical water splitting by **Runjhun Dutta, Anushtha Bhardwaj, Manju Srivastava, Rohit Shrivastav.**
5. Adrenaline & its role in promoting evolutionary consciousness for sustainable humanity by **Swati Idnani, Suresh Idnani, Sneha Idnani, Pushpa Idnani, Teena Idnani.**
6. Digital solutions to ensure inclusive and equitable quality-based education system by **Shagun Walia, Ami Parashar.**
7. Elements of healing: An exploration of the relationship between the periodic table and homoeopathy by **Mahima Bhatnagar.**
8. Synthesis and characterization of high efficient green adsorbent material for amino acid removal from their aqueous solutions by **Virendra Upadhyay, Rajat Sengar, Sudhir Kumar Verma.**



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9. An AI based multi-platform audio-visual feedback application for yoga by **Shabd Sahni, Surat Sahni**.
10. Analysis and design of long and narrow solar charging station for electric vehicles: an initiative to achieve green highway. by **Surbhi Shrivastav, Ajay Kumar Saxena, GSS Babu**.
11. Human vices versus Spiritual Consciousness by **Archana Satsangi**.
12. The impact of conscious leadership on the workforce in a hybrid work paradigm by **Dhruv Chopra, Shalini Nigam, DK Banwet**.
13. Performance and sustainability of SHGs for social system by **Samrin Beg, Priya Jadone, Sangita Saini**.
14. Construction of being - values scale by **Kavita Kumar, Ira Das, Nazm Prasad**.
15. Water dynamics of an optimum drip irrigation schedule in semi-arid climate for onion crop with and without mulching by **PR Anjitha Krishna, B Maheshwara Babu, AT Dandekar, RH Rajkumar, G Ramesh, SR Balanagoudar**.
16. Transcriptome profiling and identification of candidate genes involved in diosgenin biosynthesis in *Tribulus Terrestris* L. by **Parul Tyagi, Deeksha Singh, Rajiv Ranjan**.
17. Error analysis of primary school students in solving problems of mathematics by **Nisha Mahaur, Sona Ahuja, Akshay Srivastava**.
18. Bokashi: An emerging technique of bioremediation for better environment by **Shubhangi Singh, Manaswi Rani, Sharmita Gupta**.
19. Keratin waste utilization to form bio-based plastics towards better worldliness: Some preliminary outcomes by **Anand Shubha, Gupta Sharmita, Anita Lakhani**.
20. Monetary evaluation of health risk due to respirable suspended particulate matter by **Deepali Kushwaha, Swami Prasad Saxena, Ranjit Kumar**.
21. Study on the effect of abiotic elicitors on the piperine production in *Piper longum* L. by **Riya Jain, Deeksha Singh, Shivangi Mathur, Rajiv Ranjan**.
22. A study of Agra-Brij region living heritage practices by **UN Shukla, Sanjog Singh**.
23. Sophisticated automatic question generation system based on transformer technology by **Monika Singh, Dhruv Kulshrestha, Harsh Kumar**.
24. Biosensors: A smart approach towards clinical diagnostics and healthier environment by **Arti Bhatnagar, Jamson Masih, Ranjit Kumar**.
25. Multiple chatbot implementation for thoughtful responses (MITR): A comparative study by **Vaishali Bhatnagar, Lotika Singh**.
26. समकालीन हिंदी कविता में पर्यावरणीय संवेदना by **Sharad Pratap**.
27. Effects of PM10, and PM1 during the festive season of diwali; a study in an urban area of Agra, India by **Krishma Yadav, Ranjit Kumar, Ashok Yadav**.
28. A hierarchical approach using deep neural networks for severity identification of brinjal plant disease by **Soniya, Aarat Prasad Chopra, Lotika Singh, Sandeep Paul**.
29. Indoor and outdoor PM2.5 bound trace metals at a residential site of Agra by **Kirti Singh, Neelam Baghel, K Maharaj Kumari, Aparna Satsangi**.
30. Heavy metals, sources, and health risk assessment of PM1 in urban and sub-urban site at Agra by **Gunjan Goswami, Simran Bamola, Isha Goyal, Muskan Agarwal, Anita Lakhani**.
31. Study on the effect of vehicular pollution on the ambient concentrations of particulate matter and carbon dioxide in Agra city by **Vaishnav Bartaria, Ashok Jangid, Ranjit Kumar**.
32. Unmanned Aerial Vehicles (UAVs): a step towards Industry 5.0 by **Mohit Yadav, Amarjeet Singh Chauhan, Varun Shrivastav, Aman Sharma, Sanjay Saini**.
33. Religious chanting: A step towards higher consciousness by **Rubina Saxena**.
34. Sigma Six Q: Women empowerment through self-defense by **Mahima Yadav, Purnima Bhatnagar, Shalini Nigam**.
35. A comprehensive study of image dataset expansion techniques for improving deep learning model performance by **Sumiran Bhatnagar, A Charan Kumari**.



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36. Dayalbagh Educational Institute's Policy 1975 and the United Nations' Sustainable Development Goals: Coherence mapping by **Preeti Manani, Rupali Satsangi.**
37. Comparison of growth and physiological parameters of tomato under hydroponics and soil cultivation inside polyhouse by **Vijay K Dalal, Lavi Sharma.**
38. Effect of germination on nutritional, anti-nutritional factors and mineral content of pearl, barnyard and kodo millets by **Hema Panwar, Sangita Saini.**
39. Seismic activity and analysis of buildings on hilly slopes by **Arushi, Apoorvi Rajput, Kajal Solanky, Surbhi Agarwal, Rachna Avasthi, Krishma Yadav.**
40. Geotextile based road improvement: An analysis of embankment using PLAXIS 2D by **Pranav Sharma, Devesh Jaysawal.**
41. A study of the recommendations of NEP2020 and its alignment with the DEI Education Policy by **Sona Dixit.**
42. Co-curricular activities at DEI: A precursor to better worldliness by **Shivansh Kulshrestha, Sona Dixit.**
43. Issues and advancement in microgrids: topology, operation, control, protection and energy management system by **Rishabh Upadhyay, Shivani Gautam, D Bhagwan Das.**
44. CMOS memristor emulator-based logic gates for neuromorphic hardware by **K Shabd Swaroop, Gufran Ahmad.**
45. Implementation of logic gates using neural network for neuromorphic computing by **CM Singh, H Brajawar, T Kulshreshtha, G Ahmad.**
46. संगीत के माध्यम से चेतना विकास by **Kalyani Gupta.**
47. Fifth (5th) industrial revolution and “conscious reform in socio-economic-education system” volume-1: Dayalbagh Educational Institute (DEI) role as Dayalbagh Industrial Institute (DII) and Modern Model Industries (MMI): A framework for the effective participation by **DK Chaturvedi, Vishal Pengoriya, Sachin Gupta.**
48. वेदों में पर्यावरण चिंतन by **Nishith Gaur.**
49. Measurements of photosynthetic parameters of *Plectranthus amboinicus* (Lour.) Spreng exposed with variable light conditions by using infra-red gas analyzer by **Gauri Vashishtha, Jeetendra Singh, SK Soni.**
50. Analysis of photosynthetic parameters of *Curcuma longa* L. exposed with variable light conditions by using infra-red gas analyzer by **Harshit Mangal, Jeetendra Singh, SK Soni.**
51. Video haze removal by **Anshal Khatri, C Vasantha Lakshmi, C Patvardhan.**
52. Quantum tic-tac-toe with chance and strategy balancing by **Bhavya Kapur, Drishti Goel, C Patvardhan.**
53. Enhancing object detection accuracy with yolo v8 on the augmented dataset by **Hritik Shyam Gupta, Gufran Ahmad.**
54. Maker-breaker triangle game by **Chandranshu Gautam, C Patvardhan.**
55. Power generation using waste heat in industries using thermoelectric generator by **Aditya Singh, Varun Singhal, Atul Suri.**
56. Improving exam day management: An intelligent system for room and seat allocation during exams by **Ritu Sharma, Sanchita Saxena, Prem Prakash Vuppuluri.**
57. A appraisal study and analytics of industrial 4.0 – a rebellion towards existent twins by **Mohit Yadav, Amarjeet Singh Chauhan, Aditya Vardhan, Sanjay Saini.**
58. Community support system: A case study of Dayalbagh community by **Nishi Yadav.**
59. Pavement blocks from plastic waste by **Shivam Uprety, Rajat Pratap Singh, Saurav Mishra, Sumit Kumar Singh, Atul Suri.**