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FEBRUARY 2025

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1. **A noise and edge extraction-based dual-branch method for shallowfake and deepfake localization**
(Open Access)
Dagar, D.,
Vishwakarma, D.K.
Signal, Image and Video Processing, 19(3), art. no. 198.
2. **A preemptive approach to polycystic ovary syndrome diagnosis using machine learning**
Agarwal, S.,
Kumar, N.,
Chauhan, A.
Artificial Intelligence in Biomedical and Modern Healthcare Informatics, pp. 413-421.
3. **Analytical Modelling of Temperature Resilient Cylindrical Gate Engineered Ferroelectric Nanowire Field Effect Transistor**
Kaul, A.,
Yadav, S.,
Rewari, S.,
Nand, D.
IEEE Transactions on Dielectrics and Electrical Insulation.
4. **Big data analytics for photovoltaic and electric vehicle management in sustainable grid integration**
Choumal, A.,
Rizwan, M.,
Jha, S.
Journal of Renewable and Sustainable Energy, 17(1), art. no. 016102.
5. **Bioremediation potential of the consortium of indigenous microbial isolates in degrading multiwall carbon nanotube (MWCNT) present in contaminated water**
Dhiman, L.,
Anand, S.,
Singh, S.K.
Archives of Microbiology, 207(2), art. no. 49.

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- | | | | |
|-------|---|--|---|
| 6. | <u>Blockchain Empowered Quantum Safe Batch Aggregate Signature Algorithm for Authenticated Data Trading in Internet of Vehicles</u> | Singh, R.,
Das, L.,
Chaudhary, D. | Transactions on Emerging Telecommunications Technologies, 36(2), art. no. e70054. |
| <hr/> | | | |
| 7. | <u>Carbon Capture and Sequestration: Cutting-Edge Technologies to Combat Climate Change</u> | Dhingra, G.,
Kumar, A. | Sustainable Energy Technologies and Assessments, 75, art. no. 104226. |
| <hr/> | | | |
| 8. | <u>Convolutional Neural Networks for Software Defect Categorization: An Empirical Validation</u> | Malhotra, R.,
Cherukuri, M. | Journal of Universal Computer Science, 31(1), pp. 22-51. |
| <hr/> | | | |
| 9. | <u>Cus@rGO Grafted PEDOT:PSS Paper-Based Electrochemical Biosensor for Sensitive Detection of Fenitrothion</u> | Bohra, P.,
Priya, Sweetey,
Hudda, D.,
Kumar, D. | Applied Organometallic Chemistry, 39(2), art. no. e70002. |
| <hr/> | | | |
| 10. | <u>DEEP CONVOLUTIONAL ARCHITECTURES FOR FORECASTS IN FLOW PROBLEMS</u> | Soulaimani, A.,
Bhatt, P.,
Kumar, Y.,
Moosa, M. | World Congress in Computational Mechanics and ECCOMAS Congress. |



- | | | | |
|-------|---|---|--|
| 11. | <u>Dynamic Interconnectedness of ESG Indices and Crude Oil Prices: A Wavelet Coherence Approach in Asia-Pacific Markets</u> | Sharma, C.,
Rani, P. | Australian Economic Papers. |
| <hr/> | | | |
| 12. | <u>Enhancing resilience for sustainable cities: a review of threats to urban trees</u> | Vashist, M.,
Singh, S.K.,
Kumar, T.V. | Biodiversity and Conservation. |
| <hr/> | | | |
| 13. | <u>Enriching image description generation through multi-modal fusion of VGG16, scene graphs and BiGRU</u> | Agarwal, L.,
Verma, B. | Visual Computer, art. no. 102210. |
| <hr/> | | | |
| 14. | <u>Experimental investigation of Homogeneous Charge Compression Ignition (HCCI) engine with vaporized fuel injection</u> | Kumar, N.,
Jha, P.K.,
Singh, R.C. | Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 47(1), pp. 3074-3092. |
| <hr/> | | | |
| 15. | <u>Experimental investigation of process parameters of cold metal transfer welding in vertical direction deposition of stainless-steel using response surface methodology</u> | Prasad, R.,
Yuvaraj, N.,
Bajpai, T. | Engineering Research Express, 7(1), art. no. 015506. |



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- | | | | |
|-------|---|--|--|
| 16. | <u>From waste to resource: A life cycle assessment of biochar from agricultural residue</u> | Patel, K.,
Vashist, M.,
Goyal, D., (...),
Garg, R.,
Singh, S.K. | Environmental Progress
and Sustainable Energy. |
| <hr/> | | | |
| 17. | <u>Genome-Wide Association Study Reveals Genetic Architecture of Common Epilepsies</u> | Thakran, S.,
Guin, D.,
Singh, P., (...),
Kushwaha, S.S.,
Kukreti, R. | Clinical Genetics. |
| <hr/> | | | |
| 18. | <u>Global trends in solar latent thermal energy storage research (1975–2023)</u> | Sharma, A.K.,
Sharma, P.,
Gupta, B.,
Kumar, A.,
Baredar, P. | Renewable and
Sustainable Energy
Reviews, 212, art. no.
115409. |
| <hr/> | | | |
| 19. | <u>Highly Sensitive Black Phosphorus-Layered SPR-PCF Refractometric Sensor</u> | Gupta, P.,
Khamaru, A.,
Kumar, A. | Plasmonics. |
| <hr/> | | | |
| 20. | <u>HOW DOES INWARD FDI LEAD TO TRADE PERFORMANCE AND SUSTAINABLE GROWTH IN INDIA?</u> | Jaiswal, K.K.,
Kumar, N. | Journal of Lifestyle and
SDG'S Review, 5(2), art.
no. e03892. |



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-
- | | | | |
|-----|--|----------------------------|------------------------------------|
| 21. | <u>Impact of preprocessing techniques on MRI-based brain tumor detection</u> | Ghosh, T.,
Jayanthi, N. | Multimedia Tools and Applications. |
|-----|--|----------------------------|------------------------------------|
-
- | | | | |
|-----|---|----------------------|---|
| 22. | <u>Impact of pressure on the magnetocaloric effect in InSb quantum wire: Rashba SOI and crossed electromagnetic field</u> | Priyanka, Sharma, R. | Frontiers in Optics, FiO 2024 in Proceedings Frontiers in Optics + Laser Science 2024 (FiO, LS) - Part of Frontiers in Optics + Laser Science 2024. |
|-----|---|----------------------|---|
-
- | | | | |
|-----|---|------------|-------------------------------------|
| 23. | <u>Inclusive and supportive aging: mental health and social care strategies for India's elderly</u> | Narula, N. | Mental Health and Social Inclusion. |
|-----|---|------------|-------------------------------------|
-
- | | | | |
|-----|---|---|-------------------------------------|
| 24. | <u>Indoor particle number concentration measurements across different income group households in urban region</u> | Sharma, M.,
Khare, M.,
Mishra, R.K. | Urban Climate, 59, art. no. 102329. |
|-----|---|---|-------------------------------------|
-
- | | | | |
|-----|--|--------------------------|---|
| 25. | <u>Influence of Magnesium Content on Tensile Properties and Deformation Behaviour of Al-Mg-Si Alloy Sheets</u> | Kumar, R.,
Gautam, V. | Transactions of the Indian Institute of Metals, 78(2), art. no. 51. |
|-----|--|--------------------------|---|
-



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- | | | | |
|-----|---|--|---|
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<u>Analysis of Polarity Controlled</u>
<u>Charge Plasma Based Tunable</u>
<u>Arsenide/Antimonide Tunneling</u>
<u>Interfaced Junctionless TFET</u> | Sharma, S.,
Madan, J.,
Chaujar, R. | IEEE Transactions on
Nanotechnology. |
|-----|---|--|---|
-
- | | | | |
|-----|--|-------------------------|--|
| 27. | <u>Is mobility transition driven by</u>
<u>wealth inequality? Evidence from</u>
<u>analysis of the electric two-wheelers</u>
<u>adoption in India</u> | Gupta, R.,
Anand, A. | Transportation Research
Part A: Policy and Practice,
193, art. no. 104407. |
|-----|--|-------------------------|--|
-
- | | | | |
|-----|--|---------------------------------------|--|
| 28. | <u>Legendre wavelet collocation method</u>
<u>for singularly-perturbed problems using</u>
<u>operational matrix and Laplace</u>
<u>transformation</u> | Kumar, N.,
Kumar, V.,
Mehra, M. | ZAMM Zeitschrift fur
Angewandte Mathematik
und Mechanik, 105(2), art.
no. e202400200. |
|-----|--|---------------------------------------|--|
-
- | | | | |
|-----|--|-------------------------|----------------------------------|
| 29. | <u>Mapping the Research on</u>
<u>Healthcare Delivery in Business</u>
<u>and Management in the Last Two</u>
<u>Decades (2002–2021): A</u>
<u>Bibliometric Network Analysis</u> | Pal, D.,
Dwivedi, G. | Journal of Health
Management. |
|-----|--|-------------------------|----------------------------------|
-
- | | | | |
|-----|---|-----------------------------|--|
| 30. | <u>Modeling the enablers for</u>
<u>sustainable adoption of water</u>
<u>ionizers: an ISM-MICMAC approach</u> | Pandey, S.,
Aggrawal, D. | International Journal of
System Assurance
Engineering and
Management, art. no.
014009. |
|-----|---|-----------------------------|--|
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- | | | | |
|-------|---|---|---|
| 31. | <u>Multimodal fusion of different medical image modalities using optimised hybrid network</u> | Ghosh, T.,
Jayanthi, N. | International Journal of Ad Hoc and Ubiquitous Computing, 48(1), pp. 19-33. |
| <hr/> | | | |
| 32. | <u>Numerical investigation of hydrothermal performances of minichannel heat sink using porous media (Open Access)</u> | Kumar, R.,
Zunaid, M.,
Mishra, R.S. | Journal of Thermal Engineering, 11(1), pp. 141-158. |
| <hr/> | | | |
| 33. | <u>Optimizing Neural Network Architectures for Intraday Solar Forecasting Applications</u> | Lohia, A.,
Dixit, A.,
Yadav, A.,
Katarya, R. | Lecture Notes in Networks and Systems, 1127 LNNS, pp. 343-356. |
| <hr/> | | | |
| 34. | <u>Oxygenated fuels in acetylene-diesel dual fuel engine: Enhancing performance and emission control</u> | Said, Z.,
Raman, R.,
Garg, A., (...),
Khan, Y.,
Rashidi, M.M. | Energy, 317, art. no. 134710. |
| <hr/> | | | |
| 35. | <u>Performance optimization of CsSnI3-based perovskite solar cells using SCAPS-1D and machine learning analysis</u> | Kundara, R.,
Baghel, S. | Journal of Optics (India). |



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- | | | | |
|-------|--|---|--|
| 36. | <u>Power Allocation & CAR Optimization in Multiuser Dual-hop RF/FSO DF Relaying Systems with Channel Estimation Error</u> | Rani, R.,
Jayanthi, N.,
Mandpura, A. | IEEE Transactions on Green Communications and Networking. |
| <hr/> | | | |
| 37. | <u>Recent study on biodegradable hydrogels for agriculture application: A review</u> | Wan Anuar, W.A.N.,
Ramli, R.A.,
El-Sayed, M.M.,
Warkar, S.G. | Journal of Environmental Chemical Engineering, 13(2), art. no. 115679. |
| <hr/> | | | |
| 38. | <u>Recovery of Carbon Nanomaterials from an Aqueous Environment Employing Oil-Based Microemulsion and Surfactant-based Cloud Point Extraction</u> | Dhiman, L.,
Bhardwaj, D.,
Gahlot, V.K., (...),
Singh, S.K.,
Rai, P.K. | Water, Air, and Soil Pollution, 236(3), art. no. 145. |
| <hr/> | | | |
| 39. | <u>Recycling of the solar panels that are consolidated using glass fibre polymers</u> | Naidu, B.S.,
Srinivas, K.,
Agarwal, A.K. | Green Materials, art. no. jgrma.24.00183. |
| <hr/> | | | |
| 40. | <u>Red Color Tuning and Emission Enhancement in Thermally Stable Co-Doped Ba₃MoTiO₈: Bi³⁺/Eu³⁺ Phosphors for Photo-Electronic Applications</u> | Rohilla, P.,
Malik, S.,
Kumari, S.,
Prasad, A.,
Rao, A.S. | ChemistrySelect, 10(6), art. no. e202405660. |



- | | | | |
|-------|--|---|--|
| 41. | <u>Reliability analysis of the intricacies of interfacial trap charges in HD-VS-FeFinFET and its applicability as CMOS inverter</u> | Verma, K.,
Chaujar, R. | Microelectronics
Reliability, 166, art. no. 115610. |
| <hr/> | | | |
| 42. | <u>Revolutionizing hyperspectral image classification for limited labeled data: unifying autoencoder-enhanced GANs with convolutional neural networks and zero-shot learning</u> | Ranjan, P.,
Kaushal, A.,
Girdhar, A.,
Kumar, R. | Earth Science
Informatics, 18(2), art. no. 216. |
| <hr/> | | | |
| 43. | <u>Secular trends in leprosy burden: Comparative insights from India and Brazil in the last three decades using the Global Burden of Disease study data</u> | Shalini, Jha, R.P.,
Dhamnetiya, D.,
Bhattacharyya, K.,
Mehra, A. | Leprosy Review, 95(4),
art. no. e2024067. |
| <hr/> | | | |
| 44. | <u>SEMI-SUPERVISED GRAPHICAL DEEP DICTIONARY LEARNING FOR HYPERSPECTRAL IMAGE CLASSIFICATION FROM LIMITED SAMPLES</u> | Goel, A.,
Majumdar, A. | Proceedings - International
Conference on Image
Processing, ICIP, pp. 2108-
2114. |
| <hr/> | | | |
| 45. | <u>Signal Noise Reduction Algorithm for Object Localization and Tracking Using a 2-Dimensional Ultrasonic Sensor Array</u> | Jain, S.,
Singh, K. | 8th IEEE International
Conference on Computational
System and Information
Technology for Sustainable
Solutions, CSITSS 2024. |



- | | | | |
|-------|---|---|--|
| 46. | <u>Soldier Strap: An IoT-Based Safety and Security Band for Soldiers</u> | Verma, S.,
Sharma, N.,
Kaushik, I.,
Verma, D.K.,
Gupta, M. | IoT-Enabled
Healthcare: Systems
Applications, Benefits,
and Challenges, pp.
35-54. |
| <hr/> | | | |
| 47. | <u>Stimulus Towards ESG in India and GHG Protocol with Measurable Metrological Tools: Progresses and Challenges</u> | Chourasia, S.,
Pandey, S.M. | Mapan - Journal of
Metrology Society of
India. |
| <hr/> | | | |
| 48. | <u>Sustainable material as a column filler in soft clay bed reinforced with encased column: numerical analysis</u>
(Open Access) | Srijan.,
Gupta, A.K. | Scientific reports,
15(1), p. 1650. |
| <hr/> | | | |
| 49. | <u>Synergistic antimicrobial effects of waste cotton cloth extracted cellulose with phytofabricated TiO2 for potential application in agriculture</u> | Sharma, C.,
Rana, A.,
Kesharwani, A.K.,
(...), Srivastava, R.,
Sharma, S.N. | Sustainable Food
Technology. |
| <hr/> | | | |
| 50. | <u>The therapeutic potential of Vitex negundo: a phytochemical exploration</u> | Singh, A.,
Bharadvaja, N. | Vegetos, art. no. 135762. |



- | | | | |
|-------|---|---|--|
| 51. | <u>Transforming Traffic Management:
Real-Time Vehicle Classification in
Smart Transportation System</u> | Pateriya, P.,
Trivedi, A.,
Malhotra, R. | Lecture Notes in Civil
Engineering, 607, pp. 1011-
1023. |
| <hr/> | | | |
| 52. | <u>Tribological Behavior of
Friction-Stir-Processed
Nanocomposite Prepared
Through Self-Assembled
Monolayer Technique
(Open Access)</u> | Chandra, P.,
Butola, R. | ECS Journal of Solid State
Science and Technology,
14(1), art. no. 013009. |
| <hr/> | | | |
| 53. | <u>Unveiling the impact of dataset
size on machine learning models
for anxiety and depression
prediction amid the COVID-19
pandemic: determining optimal
data collection thresholds</u> | Arora, P.,
Dahiya, S. | Current Psychology. |
| <hr/> | | | |
| 54. | <u>Unveiling the Impact of Interfacial
Trap Charges on Strained VS-
FeFinFETs Improved
Reliability:device to Circuit Level
Assessment</u> | Verma, K.,
Chaujar, R. | IEEE Transactions on
Nanotechnology. |
| <hr/> | | | |
| 55. | <u>Validating multi-objective search
algorithms to predict faulty
classes</u> | Malhotra, R.,
Singh, M.,
Khanna, M. | International Journal of
System Assurance
Engineering and
Management. |



- | | | | |
|-------|---|--|--|
| 56. | <u>VO2 based polarization-independent dual-wavelength plasmonic switches using U and C shaped nanostructures</u> | Dalal, K.,
Sharma, Y. | Scientific reports, 15(1), p. 4020. |
| <hr/> | | | |
| 57. | <u>Wear Performance Enhancement of Interface Layer in Cold Metal Transfer-Based WAAM-Fabricated ER4043/ER5356 Bimetallic Wall Through Friction Stir Surface Treatment</u> | Kesarwani, S.,
Yuvaraj, N.,
Niranjan, M.S. | Journal of Tribology, 147(8), art. no. 081401. |
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