

MONTHLY EDITION  
(JUNE 2024)

# 2024 CURRENT AWARENESS BULLETIN

(List of Research papers /Articles published by  
Faculty and Students of DTU)

Prepared By:  
**DTU LIBRARY**



[library@dtu.ac.in](mailto:library@dtu.ac.in)

[library.dtu.ac.in](http://library.dtu.ac.in)





## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |    |   |   |  |
|----|---|---|--|
| 1. | <u>A metasurface based close-proximity two-port circularly polarized MIMO antenna for mid-band sub-6 GHz 5G applications</u>          | Angadi, S.,<br>Sharma, Y.,<br>Raghava, N.S.,<br>Sabapathy, T.                         | AEU - International<br>Journal of Electronics<br>and Communications,<br>183, art. no. 155379.  |
| 2. | <u>A novel nature-inspired nutcracker optimizer algorithm for congestion control in power system transmission lines (Open Access)</u> | Kumar, V.,<br>Rao, R.N.,<br>Singh, A., (...),<br>Alghamdi, T.A.H.,<br>Abdelaziz, A.Y. | Energy Exploration and<br>Exploitation.  |
| 3. | <u>A Passive Floating C-MOS Memristor with Analog Applications</u>  | Gupta, R.K.,<br>Choudhry, M.S.,<br>Saxena, V.   | Proceedings - 2nd IEEE<br>International Conference<br>on Device Intelligence,<br>Computing and<br>Communication<br>Technologies, DICCT<br>2024, pp. 22-27.   |
| 4. | <u>A Survey on Artificial Intelligence-Based Cyber Security in IoT Networks</u>   | Tyagi, A.,<br>Singh, A.,<br>Yadav, A.,<br>Mehra, P.S.                                 | Proceedings - 2nd IEEE<br>International<br>Conference on Device<br>Intelligence, Computing<br>and Communication<br>Technologies, DICCT<br>2024, pp. 238-243. |
| 5. | <u>Additive Manufacturing in the Age of Industry 4.0 and Beyond</u>   | Jafar, M.R.,<br>Tripathi, N.M.,<br>Yadav, M.,<br>Nasato, D.S.                         | Advances in Pre- and<br>Post-Additive<br>Manufacturing<br>Processes: Innovations<br>and Applications, pp.<br>213-230.  |



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |     |   |  |  |
|-----|---|--|--|
| 6.  | <b><u>An adaptive mesh generation and higher-order difference approximation for the system of singularly perturbed reaction-diffusion problems</u></b><br>(Open Access) | Kaushik, A.,<br>Gupta, A.,<br>Jain, S.,<br>Toprakseven, Ş.,<br>Sharma, M.    | Partial Differential Equations in Applied Mathematics, 11, art. no. 100750.                                |
| 7.  | <b><u>An OWA Based MCDM Framework for Analyzing Multidimensional Twitter Data: A Case Study on the Citizen-Government Engagement During COVID-19</u></b>                | Gupta, A.,<br>Singh, S.,<br>Rana, H.,<br>Prashar, V.K.,<br>Yadav, R.         | International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, 32(3), pp. 355-383.           |
| 8.  | <b><u>Biodiesel production from microalgae oils: A critical review</u></b>  | Kumar, M.,<br>Singh, V.K.,<br>Ravi, R., (...),<br>Yadav, A.S.,<br>Sharma, A. | Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering. |
| 9.  | <b><u>Brand pride: concept and measurement</u></b>  | Kaur, H.,<br>Verma, H.V.   | Journal of Product and Brand Management.   |
| 10. | <b><u>CDME-GAT: Context-Aware Depression Detection Using Multiembedding and Graph Attention Networks in Social Media Text</u></b>                                       | Jain, M.,<br>Jain, S.,<br>Jain, A.,<br>Garg, B.                              | IEEE Transactions on Computational Social Systems.   |



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |     |  |   |   |
|-----|--|---|---|
| 11. | <p><b><u>Characterization of Luminescent Li<sub>3</sub>Ba<sub>2</sub>Gd<sub>3</sub>Mo<sub>8</sub>O<sub>32</sub>:Tb<sup>3+</sup> Phosphors Prepared via Sol-Gel Method</u></b></p>  | <p>Singh, V.,<br/>Rao, B.R.V.,<br/>Bhat, A.A., (...),<br/>Rao, A.S.,<br/>Joo, J.B.</p>        | <p>Journal of Electronic Materials.</p>   |
| 12. | <p><b><u>Colour tunable photoluminescence studies of Dy<sup>3+</sup>/Eu<sup>3+</sup> co-doped BaPbAlFB glasses for epoxy-free w-LED applications</u></b></p>   | <p>Rekha Rani, P.,<br/>Venkateswarlu, M.,<br/>Swapna, K.,<br/>Mahamuda, S.,<br/>Rao, A.S.</p> | <p>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 320, art. no. 124438.</p> |
| 13. | <p><b><u>Concentration of betanin from model beetroot extracts by using nanofiltration: parameter estimation and sensitivity analysis</u></b></p>  | <p>Tiwari, A.K.,<br/>Jain, M.</p>   | <p>Journal of Chemical Technology and Biotechnology.</p>  |
| 14. | <p><b><u>Correction to: Landslide Susceptibility Mapping Using Probabilistic Frequency Ratio and Shannon Entropy for Chamoli, Uttarakhand Himalayas (Iranian Journal of Science and Technology, Transactions of Civil Engineering, (2024), 48, 1, (377-395), 10.1007/s40996-023-01279-4) (Open Access)</u></b></p> | <p>Bhardwaj, D.,<br/>Sarkar, R.</p>   | <p>Iranian Journal of Science and Technology - Transactions of Civil Engineering.</p>               |
| 15. | <p><b><u>Cosmic evolution in f(Q,T) gravity with observational constraints: A comparative analysis with <math>\Lambda</math>CDM</u></b></p>  | <p>Shukla, B.K.,<br/>Sofuoğlu, D.,<br/>Chaudhary, H.,<br/>Atamurotov, F.,<br/>Mustafa, G.</p> | <p>Journal of High Energy Astrophysics, 43, pp. 1-14.</p>   |



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- 
- |     |  |                               |                                  |
|-----|--|-------------------------------|----------------------------------|
| 16. | <u>Crowdsourcing-based social linkage and organizational innovation competence: knowledge transfer effectiveness and absorptive capacity as serial mediators</u> | Mishra, D.,<br>Maheshwari, N. | Journal of Knowledge Management. |
|-----|--|-------------------------------|----------------------------------|
- 
- |     |   |                   |                                   |
|-----|---|-------------------|-----------------------------------|
| 17. | <u>Development of Ti3C2Tx-based novel immunosensor for cancer biomarker detection</u> | Sweety, Kumar, D. | Applied Organometallic Chemistry. |
|-----|---|-------------------|-----------------------------------|
- 
- |     |  |   |   |
|-----|--|---|---|
| 18. | <u>DO UNDERGRADUATE PHYSICS STUDENTS STUDYING ABROAD NEED OPTIMISM? A CROSS-COUNTRY CASE STUDY</u> | Putra, R.P.,<br>Ramadhanti, A.,<br>Setiawati, F.A.,<br>Azizah, H.J.A.,<br>Puhka, P. | Jurnal Ilmiah Ilmu Terapan Universitas Jambi, 8(1), pp. 90-103. |
|-----|--|---|---|
- 
- |     |   |   |   |
|-----|---|---|---|
| 19. | <u>Does domestic monetary policy affect foreign direct investment to India?</u> | Kumar, V.,<br>Kumar, N.,<br>Arora, P.K.,<br>Gupta, A. | Economics Bulletin, 44(1), pp. 173-181. |
|-----|---|---|---|
- 
- |     |   |   |  |
|-----|---|---|--|
| 20. | <u>Dy3+ doped KCa(PO3)3 phosphor for white light generation: structural and luminescent studies</u> | Deepti, Maurya, S.,<br>Kumari, S., (...),<br>Prasad, A.,<br>Rao, A.S. | Physica Scripta, 99(6), art. no. 065573. |
|-----|---|---|--|



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |     |  |  |   |
|-----|--|--|---|
| 21. | <u>Estimation of power in the controlled quantum teleportation through the witness operator</u><br>(Open Access)   | Garg, A.,<br>Adhikari, S.                                    | European Physical Journal D, 78(5), art. no. 64.                |
| 22. | <u>Evaluation of soil liquefaction potential using ensemble classifier based on grey wolves optimizer (GWO)</u>    | Reddy, N.D.K.,<br>Diksha, Gupta, A.K.,<br>Sahu, A.K.         | Soil Dynamics and Earthquake Engineering, 182, art. no. 108750. |
| 23. | <u>Examining the structural viability of recycled fine aggregates in sustainable concrete</u>                      | Panghal, H.,<br>Kumar, A.                                    | Journal of Mechanical Science and Technology.                   |
| 24. | <u>Exploring nucleoside analogs: key targets in the viral life cycle - advancing strategies against SARS-CoV-2</u> | Garg, R.,<br>Kumar, R.,<br>Srivastava, R.,<br>Srivastava, R. | Medicinal Chemistry Research.                                   |
| 25. | <u>Exploring tunable arsenide/antimonide tunneling interfaced junctionless TFET for gas sensing applications</u>   | Sharma, S.,<br>Madan, J.,<br>Chaujar, R.                     | Materials Science and Engineering: B, 305, art. no. 117450.     |



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |     |  |  |  |
|-----|--|--|--|
| 26. | <u>Exposing the Achilles' heel of textual hate speech classifiers using indistinguishable adversarial examples</u>                   | Aggarwal, S.,<br>Vishwakarma, D.K.                         | Expert Systems with Applications, 254, art. no. 124278.      |
| 27. | <u>Factors Influencing Poka-Yoke Implementation in the Healthcare Industry</u>   | Goyal, M.,<br>Prakash, P.,<br>Kumar, G.,<br>James, A.T.    | Lecture Notes in Mechanical Engineering, pp. 83-92.          |
| 28. | <u>Fe(III)-modified bamboo biochar for the removal of phosphate from synthetic and field stormwater runoff</u>                       | Yadav, S.,<br>Pipil, H.,<br>Haritash, A.K.,<br>Reddy, K.R. | Sustainable Water Resources Management, 10(4), art. no. 140. |
| 29. | <u>Federated learning in Emotion Recognition Systems based on physiological signals for privacy preservation: a review</u>           | Gahlan, N.,<br>Sethia, D.                                  | Multimedia Tools and Applications.                           |
| 30. | <u>Fructose-Based Non-Isocyanate Polyurethane/Poly (Sodium Acrylate) Hydrogels: Design, Synthesis and Environmental Applications</u> | Singh, P.,<br>Kaur, R.                                     | Journal of Polymers and the Environment.                     |



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |     |  |   |  |
|-----|--|---|--|
| 31. | <u>Impact of Eccentric Tube Shapes and Heat Pipes on Phase Change Material's Thermal Charging</u>  | Kumar, J.,<br>Singh, P.,<br>Kumar, R.                                       | Heat Transfer Engineering.                                     |
| 32. | <u>Laboratory simulation to study the nonlinear evolution of right-hand circularly polarised wave in laser-produced plasmas</u>  | Aditya, Sharma, S.C.,<br>Singh, I.,<br>Sharma, R.P.                         | Physica Scripta, 99(7), art. no. 075605.                       |
| 33. | <u>Machine learning: an advancement in biochemical engineering</u>   | Saha, R.,<br>Chauhan, A.,<br>Rastogi Verma, S.                              | Biotechnology Letters.   |
| 34. | <u>Meta-Learning-Based Physics-Informed Neural Network: Numerical Simulations of Initial Value Problems of Nonlinear Dynamical Systems without Labeled Data and Correlation Analyses</u> | Duanyai, W.,<br>Song, W.K.,<br>Chitthamlerd, T.,<br>Kumar, G.               | Journal of Nonlinear Modeling and Analysis, 6(2), pp. 485-513. |
| 35. | <u>Metasurface-based Frequency Reconfigurable two-port MIMO Antenna for 5G Application</u>   | Angadi, S.,<br>Sharma, Y.,<br>Nallanthighal<br>Rghava, S.,<br>Sabapathy, T. | 2024 IEEE Wireless Antenna and Microwave Symposium, WAMS 2024. |





## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- 
- |     |   |                           |  |
|-----|---|---------------------------|--|
| 36. | <u>Microwave-Assisted Synthesis of Fluorinated 5-Membered Nitrogen Heterocycles</u> | Prakash, C.,<br>Singh, R. | ChemistrySelect, 9(23), art. no. e202401376. |
|-----|---|---------------------------|--|
- 
- |     |  |                             |                           |
|-----|--|-----------------------------|---------------------------|
| 37. | <u>Numerical modelling for triple hybrid gate optimization dielectric modulated junctionless gate all around SiNW-FET based uricase and ChOX biosensor</u> | Chaujar, R.,<br>Yirak, M.G. | Microsystem Technologies. |
|-----|--|-----------------------------|---------------------------|
- 
- |     |  |                           |   |
|-----|--|---------------------------|---|
| 38. | <u>On a Class of Certain Non-univalent Functions (Open Access)</u> | Kumar, S.S.,<br>Yadav, P. | Iranian Journal of Science, 48(3), pp. 785-793. |
|-----|--|---------------------------|---|
- 
- |     |  |  |                                   |
|-----|--|--|-----------------------------------|
| 39. | <u>On the Effective Throughput of Shadowed Beaulieu-Xie Fading Channel</u> | Kaur, M.,<br>Chauhan, P.S.,<br>Kumar, S.,<br>Yadav, P. | Wireless Personal Communications. |
|-----|--|--|-----------------------------------|
- 
- |     |   |                            |   |
|-----|---|----------------------------|---|
| 40. | <u>Performance analysis of LaFeO<sub>3</sub> perovskite solar cells: A theoretical and experimental study</u> <a href="#">Open Access</a> | Kundara, R.,<br>Baghel, S. | Solid State Communications, 389, art. no. 115590. |
|-----|---|----------------------------|---|



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |     |   |   |  |
|-----|---|---|--|
| 41. | <u>Performance analysis of RPL protocol in different nodes positioning using Contiki Cooja</u>                    | Ajayy, V.,<br>Ranga, V.   | International Journal of Information Technology (Singapore).   |
| 42. | <u>Positional Analysis and Comparison of Different Charge Generation Layer Based Blue OLEDs</u>                   | Yadav, S.,<br>Mittal, P.,<br>Negi, S.                                 | Proceedings - 2nd IEEE International Conference on Device Intelligence, Computing and Communication Technologies, DICCT 2024, pp. 644-649. |
| 43. | <u>Potassium tert-butoxide promoted a direct one-pot synthesis of nitriles from aldehydes at room temperature</u> | Kumar, S.,<br>Kubba, R.,<br>Agasti, N.,<br>Selvaraj, A.,<br>Kumar, A. | Journal of Chemical Sciences, 136(2), art. no. 39.   |
| 44. | <u>Prediction of the flow resistance in non-prismatic compound channels (Open Access)</u>                         | Kaushik, V.,<br>Naik, B.,<br>Kumar, M.,<br>Minocha, V.K.              | Water Practice and Technology, 19(5), pp. 1822-1835.   |
| 45. | <u>Rejuvenation of water bodies with recycled water (Open Access)</u>   | Tyagi, R.S.,<br>Singh, S.K.,<br>Goyal, P.K.                           | Water Practice and Technology, 19(3), pp. 839-851.   |



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |     |   |   |  |
|-----|---|---|--|
| 46. | <b><u>Resistive gas sensors based on nanostructured ternary metal oxide: a review</u></b>   | Meena, D.,<br>Jain, M.,<br>Bhatnagar, M.C.                              | Journal of Materials Science.  |
| 47. | <b><u>RUHate-MM: Identification of Hate Speech and Targets using Multimodal Data from Russia-Ukraine Crisis (Open Access)</u></b>                 | Thapa, S.,<br>Jafri, F.A.,<br>Rauniyar, K.,<br>Nasim, M.,<br>Naseem, U. | WWW 2024 Companion - Companion Proceedings of the ACM Web Conference, pp. 1854-1863. |
| 48. | <b><u>S2AM: a sustainable smart agriculture model for crop protection based on deep learning</u></b>  | Sharma, A.,<br>Sharma, P.   | Journal of Plant Diseases and Protection.  |
| 49. | <b><u>Selection of Third-Party Reverse Logistics Partners Using Multi-criteria Decision Making: A Case Study of EV Industry (Open Access)</u></b> | Shukla, S.,<br>Khare, S.,<br>Verma, T.,<br>Chhimwal, M.,<br>Kumar, G.   | Lecture Notes in Mechanical Engineering, pp. 209-219.                                |
| 50. | <b><u>Self-Isolated Frequency Reconfigurable two-port MIMO Antenna for 5G Application</u></b>   | Angadi, S.,<br>Sharma, Y.,<br>Rghava, S.N.,<br>Sabapathy, T.            | 2024 IEEE Wireless Antenna and Microwave Symposium, WAMS 2024.                       |



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |     |  |   |  |
|-----|--|---|--|
| 51. | <u>Small Signal Parameters Extraction and RF Performance of GaN-Based Dual-Metal Cylindrical Surrounding Gate Junctionless Accumulation-Mode (DM-CSG-JAM) MOSFET</u> | Gupta, S.,<br>Pandey, N.,<br>Gupta, R.S.                | IETE Journal of Research.  |
| 52. | <u>Strategic interventions for bridging the design-reality gap in property conferment rights: a case study of India's ambitious initiative</u>                       | Pandey, J.K.  | Property Management.   |
| 53. | <u>Symbiotic microbial consortia for biodesalination: A novel approach towards sustainable seawater desalination</u>   | Kaur, J.,<br>Haokip, L.,<br>Sharma, J.G.                | Sustainable Chemistry and Pharmacy, 40, art. no. 101605.                             |
| 54. | <u>Technical and economic evaluation of renewable powered electric vehicle charging loads for New Delhi region</u>   | Bilal, M.,<br>Ahmad, F.,<br>Mohammad, A.,<br>Rizwan, M. | Electric Vehicle Propulsion Drives and Charging Systems, pp. 255-272.                |
| 55. | <u>Textual Context guided Vision Transformer with Rotated Multi-Head Attention for Sentiment Analysis</u><br>(Open Access)   | Dhiman, C.,<br>Kumar, G.                                | WWW 2024 Companion - Companion Proceedings of the ACM Web Conference, pp. 1823-1830. |



## CURRENT AWARENESS BULLETIN

JUNE 2024

LIST OF RESEARCH PAPERS/ARTICLES PUBLISHED BY  
FACULTY AND STUDENT OF DTU

- |     |  |  |   |
|-----|--|--|---|
| 56. | <u>Theoretical proposal for the experimental realization of realignment operation (Open Access)</u>                      | Aggarwal, S.,<br>Adhikari, S.                        | Quantum Information Processing, 23(6), art. no. 223.                  |
| 57. | <u>Topological phase transition and tunable surface states in YBi (Open Access)</u>                                      | Kumar, R.,<br>Singh, M.                              | Journal of Physics Condensed Matter, 36(34), art. no. 345601.         |
| 58. | <u>Train Length and Service Frequency Optimization: Passenger Health Expense Perspective</u>                             | Sharma, M.K.,<br>Singh, M.                           | International Journal of Intelligent Transportation Systems Research. |
| 59. | <u>Trivalent Gd incorporated Zn<sub>2</sub>SiO<sub>4</sub> phosphor material for EPR and luminescence investigations</u> | Singh, V.,<br>Bhatia, K.,<br>Rao, A.S.,<br>Joo, J.B. | International Journal of Materials Research.                          |
| 60. | <u>Waste plastic oil as an alternative fuel: A review (Open Access)</u>  | Amardeep,<br>Kumar, R.,<br>Kumar, N.                 | Archives of Thermodynamics, 45(1), pp. 81-97.                         |