



JANUARY 2026

SAPIENTIA

((A MONTHLY BULLETIN OF
INTELLECTUAL CONTRIBUTIONS OF
DTU))

PRESENTED BY :
DTU CENTRAL
LIBRARY



<https://library.dtu.ac.in>

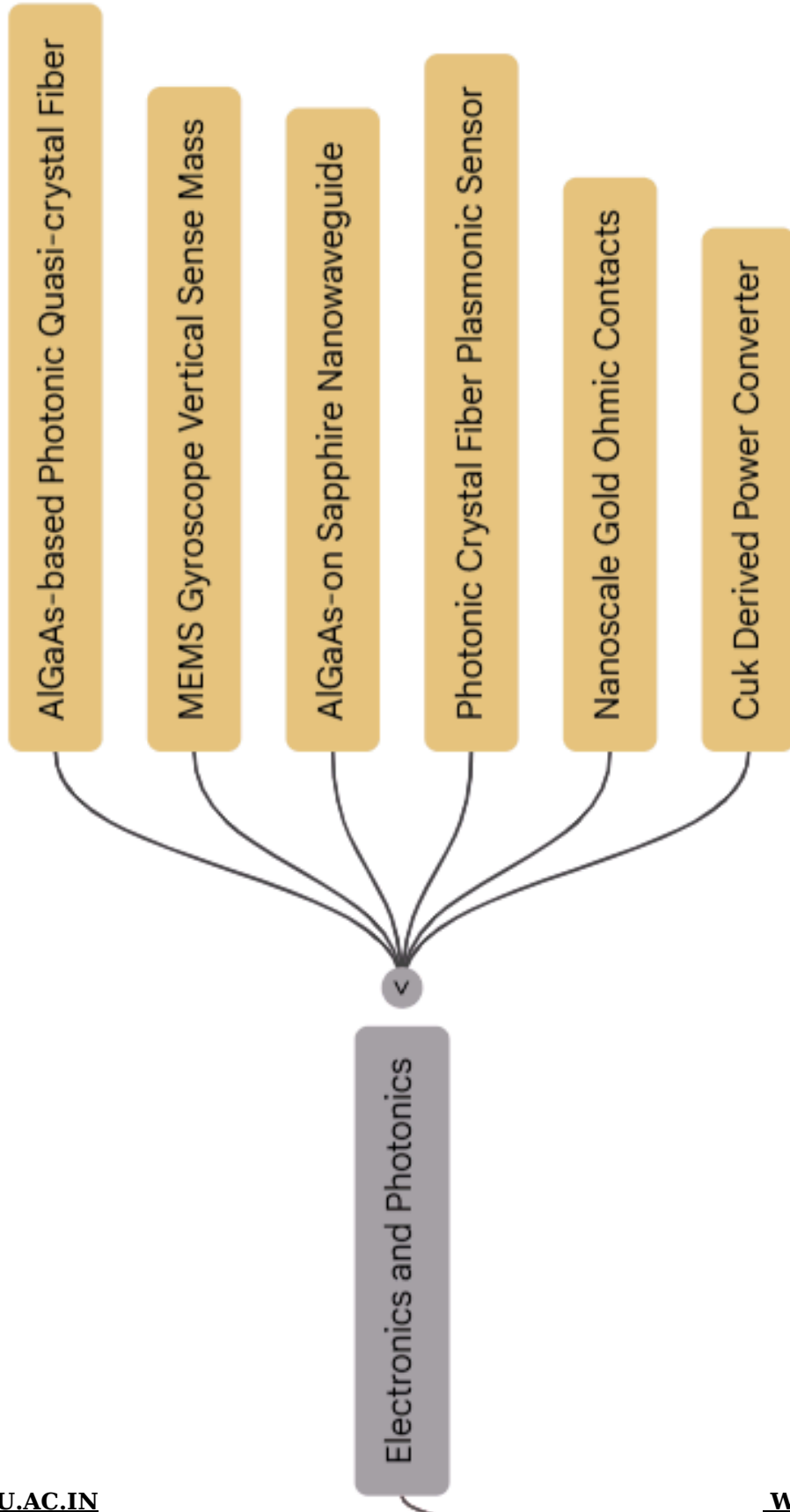


library@dtu.ac.in

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)



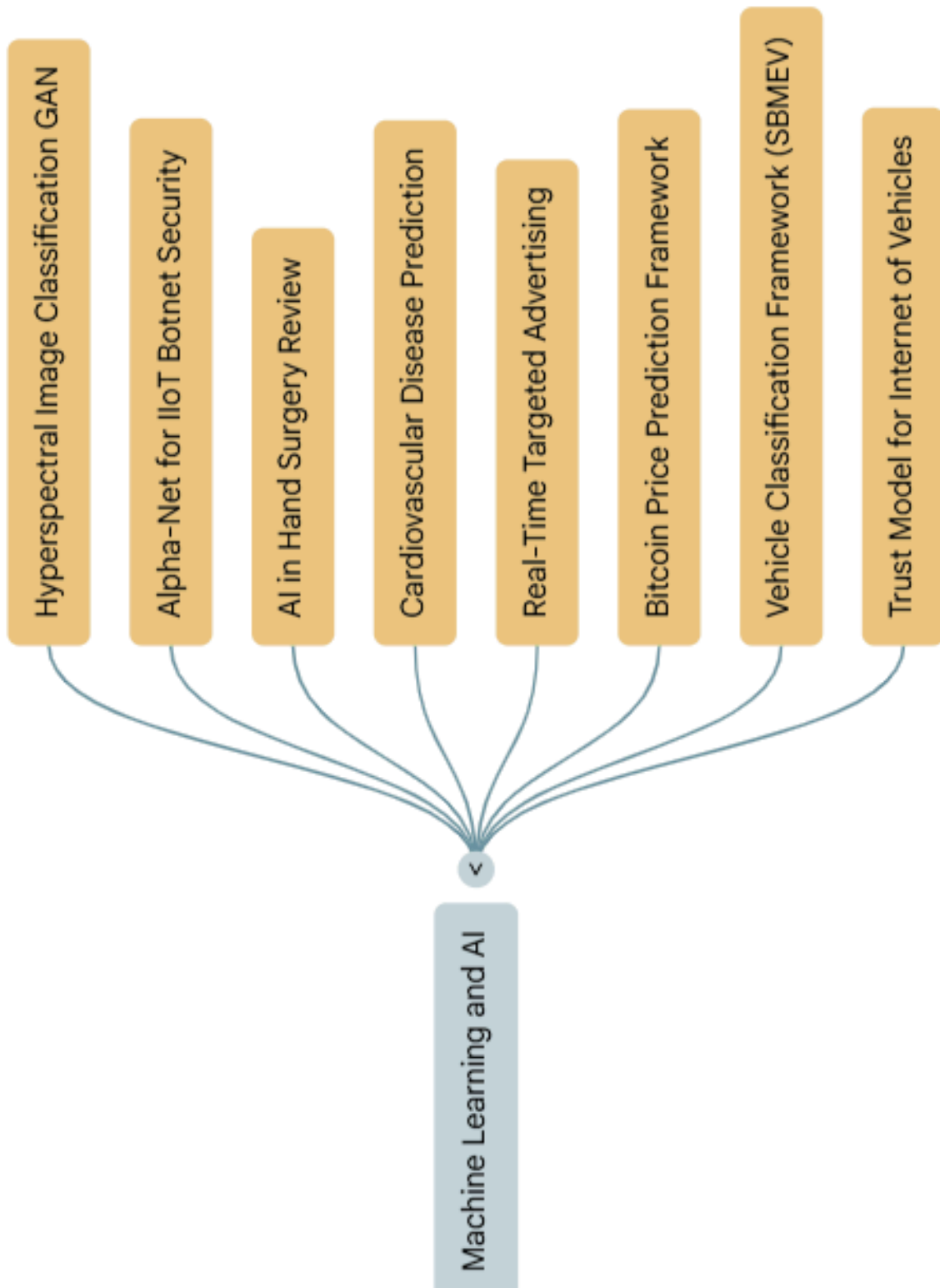
Subjects of Paper Titles in the Format of Mind Map



DTU LIBRARY

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)

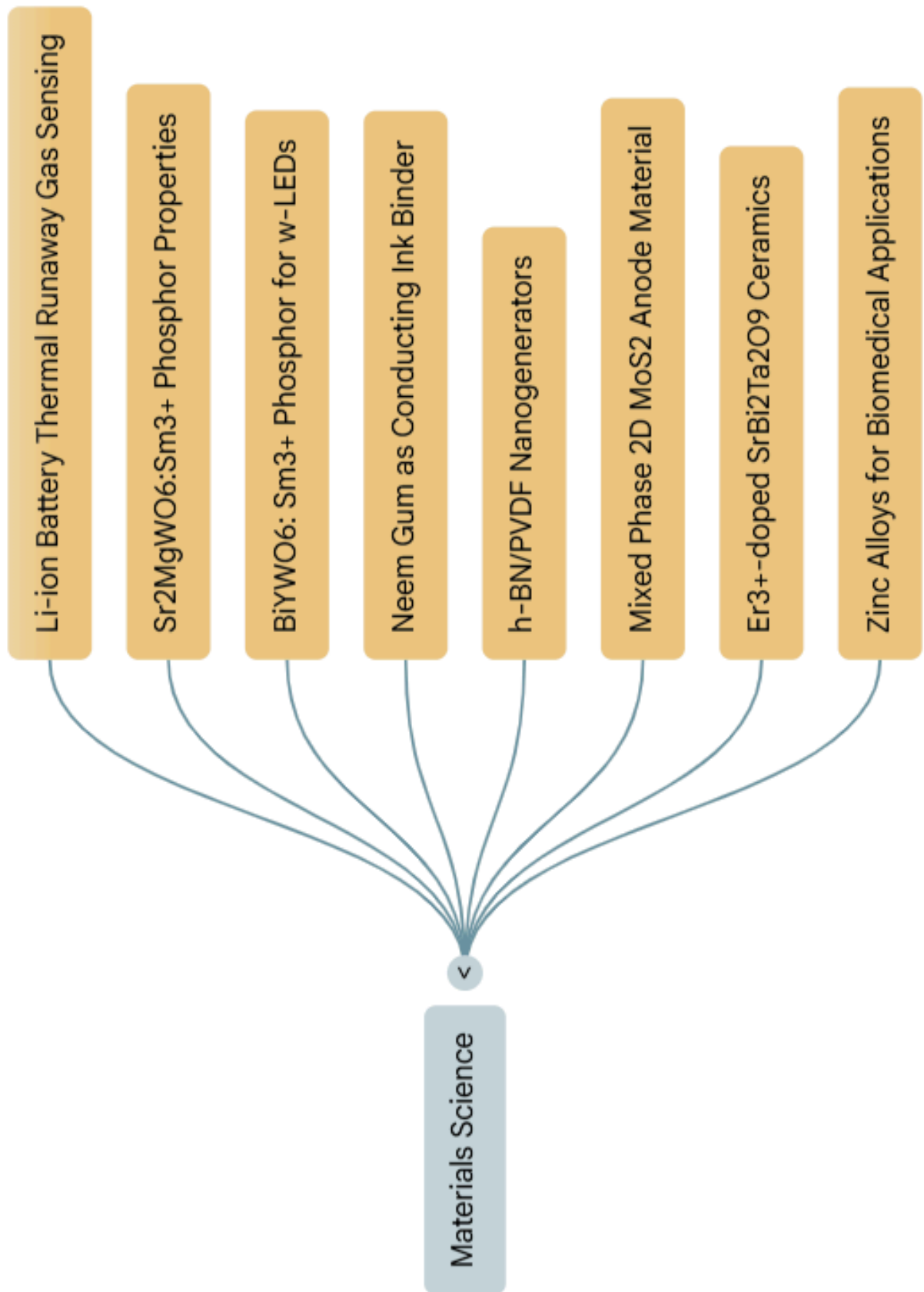
Subjects of Paper Titles in the Format of Mind Map



Y-HHUSRUMRUCHZCΓDCOHGOGZICOM-HHIGMD

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)

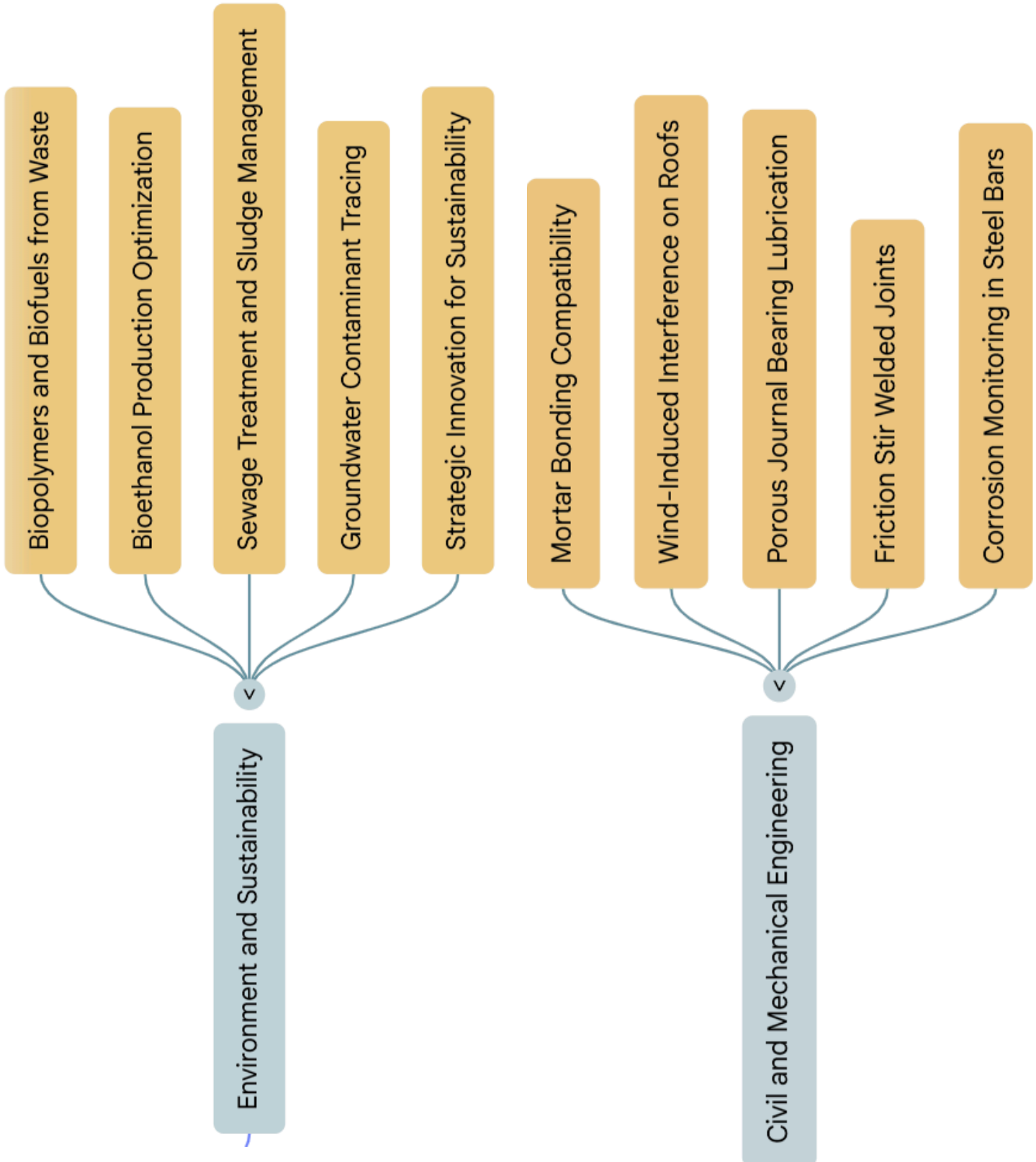
Subjects of Paper Titles in the Format of Mind Map



←HHSRMRCHZCΓDCHGOGZICM-HIΓMO

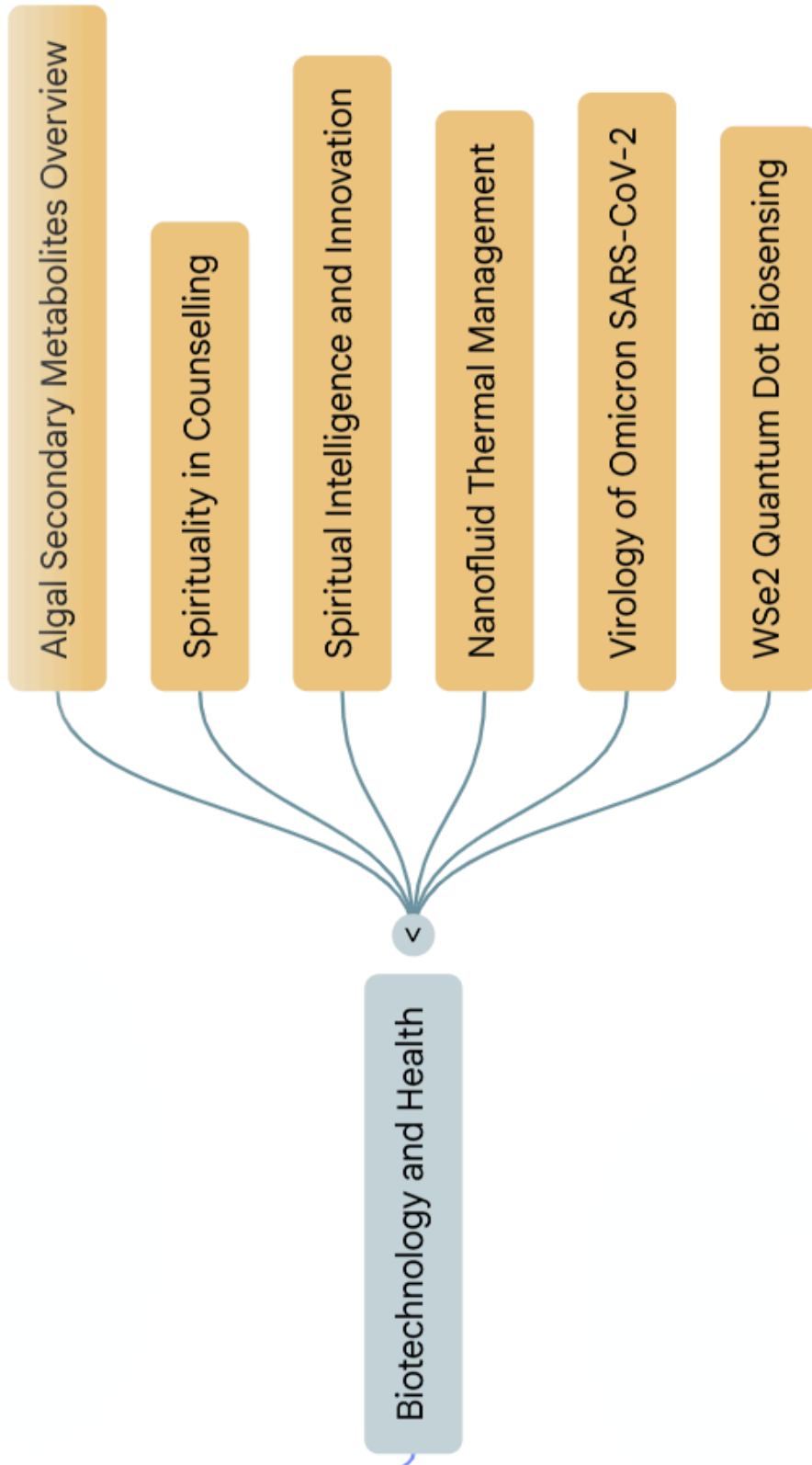
(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)

Subject of Paper Titles in the Format of Mind Map



←HHSRMRCHZCΓDCHGOGZICOM-HHIGMD

Subject of Paper Titles in the Format of Mind Map



Y-HHWSRMCCHZCΓDCOHGOGZICOM-HHIGMD



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)

-
1. **A deep insight into the adsorption mechanisms of lithium-ion battery thermal runaway gases onto Cu-decorated hBN for gas sensing applications using DFT**
[View Paper](#)
- Bhandari, A.,
Puri, N.K.,
Dua, P.,
Chaujar, R.
- Journal of Materials Chemistry A, 13(43), pp. 37138-37155.
-
2. **A Residual Pyramid-GAN Approach for Hyperspectral Image Classification**
[View Paper](#)
- Ranjan, P.,
Ankur,
Kumar, R.
- Annals of Data Science.
-
3. **A study on structural and reddish-orange photoluminescence properties of Sr₂MgWO₆:Sm³⁺ phosphor for solid state light applications**
[View Paper](#)
- Tirupatamma, P.L.,
Mahamuda, S.,
Swapna, K.,
Venkateswarlu, M.,
Rao, A.S.
- Physica B Condensed Matter, 725, art. no. 418218.
-
4. **Adaptive Mesh Generation and a Higher-Order Hybrid Approximation to Time-Dependent Singularly Perturbed Reaction-Diffusion Equations**
[View Paper](#)
- Kaushik, A.,
Godara, M.,
Sharma, M.
- Journal of Computational and Nonlinear Dynamics, 21(4), art. no. 041008.
-
5. **AlGaAs-based Semi-Stampfli photonic quasi-crystal fiber for mid-IR supercontinuum generation**
[View Paper](#)
- Khamaru, A.,
Kumar, A.
- Journal of Computational Electronics, 25(1), art. no. 50.
-

DELHI TECHNOLOGICAL UNIVERSITY



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)

6. **AlGaAs-on sapphire nanowaveguide with high FOM for coherent two octave spanning supercontinuum generation using low peak power** Garg, D., Kumar, A. Journal of Modern Optics.
[View Paper](#)
-
7. **Algal Secondary Metabolites: An Overview** Kapoor, S., Verma, S., Priya, S., Gupta, A., Gupta, V. Industrial Applications of Microbial Secondary Metabolites A Modern Approach, pp. 197-212.
[View Paper](#)
-
8. **Alpha-Net: A dependable and trustworthy deep learning framework for securing industrial internet of things networks against botnet attacks** Nandanwar, H., Katarya, R. Computers and Electrical Engineering, 131, art. no. 110919.
[View Paper](#)
-
9. **Assessment of extreme rainfall events over Northwest India in the second week of July 2023** Mishra, K., Kant, S., Hunt, K.M.R., Kumar, V. Meteorology and Atmospheric Physics, 138(1), art. no. 10.
[View Paper](#)
-
10. **Beyond planar: A vertical sense mass approach to overcome damping challenge in MEMS gyroscope** Shaveta, Bhan, R.K., Chaujar, R. Micro and Nanostructures, 211, art. no. 208539.
[View Paper](#)



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)

-
- | | | | |
|-----|---|-----------------------|---|
| 11. | <u>Cardiovascular disease prediction using machine learning algorithms with Bernstein-type kernel functions</u> | Tomar, M.,
Deo, N. | Journal of Supercomputing, 82(1), art. no. 5. |
| | View Paper | | |
-
- | | | | |
|-----|--|---|---|
| 12. | <u>Case study on biofuels derived from food and agro-industrial wastes</u> | Choudhary, R.,
Harne, K.,
Dhar, S., (...),
Chaudhari, S.K.,
Patel, K. | Food and Agro Industrial Wastes Sustainable Impacts Transformation and Added Value of by Products, pp. 455-470. |
| | View Paper | | |
-
- | | | | |
|-----|---|---|---|
| 13. | <u>Case study on biopolymers derived from food and agro-industrial wastes</u> | Choudhary, R.,
Kumar, A.,
Kumar, V., (...),
Kumari, S.,
Patel, K. | Food and Agro Industrial Wastes Sustainable Impacts Transformation and Added Value of by Products, pp. 439-454. |
| | View Paper | | |
-
- | | | | |
|-----|--|-----------------------------|---|
| 14. | <u>Clinical applications of artificial intelligence in hand surgery: A systematic review and meta-analysis</u> | Jerome, J.T.J.,
Jain, V. | Journal of Clinical Orthopaedics and Trauma, 73, art. no. 103335. |
| | View Paper | | |
-
- | | | | |
|-----|---|--|--|
| 15. | <u>Cost-Effective Real-Time Targeted Advertising on Public Screens Based on Gender, Age, and Weather Conditions</u> | Shifare, H.L.,
Shukla, M.,
Kothari, N., (...),
Kedre, S.,
Demissie, M. | Lecture Notes in Networks and Systems, 1685 LNNS, pp. 399-411. |
| | View Paper | | |



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)

16. Cuk derived low stress power converter for battery charging through photovoltaic energy Asthana, P., Verma, V. Journal of Power Electronics.
- [View Paper](#)
-
17. Design of photonic crystal fiber-based plasmonic sensor for diabetes detection Chaudhary, V., Singh, S. Journal of Computational Electronics, 25(1), art. no. 29.
- [View Paper](#)
-
18. Development of wavelength dependent multicolour emitting BiYWO6: Sm³⁺ phosphor for w-LEDs and anti-counterfeiting applications Maurya, I., Sangwan, V., Pavani, K., Jayasimhadri, M. Journal of Molecular Structure, 1357, art. no. 145216.
- [View Paper](#)
-
19. Domestic monetary policy and non-resident Indian (NRI) deposits to India: an empirical analysis Kumar, V., Arora, P.K., Kaushik, A., Poonam, P. Journal of Economic and Administrative Sciences, pp. 1-27.
- [View Paper](#)
-
20. Dynamic Modelling and Optimization of Bioethanol Production from Rice Straw Hydrolysate Using Kluyveromyces Marxianus with Hybrid LSTM Kinetic Model and RSM-CCD Kaur, S., Srivastava, R., Gaurav, K. Process Integration and Optimization for Sustainability.
- [View Paper](#)



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS
OF DTU)

-
- | | | | |
|-----|--|--|---|
| 21. | <p><u>Evaluating the bonding compatibility of lime and cement mortars with historical mortars</u></p> <p>View Paper</p> | <p>Saggu, K.,
Dev, N.,
Pal, S.</p> | <p>Sadhana Academy
Proceedings in
Engineering Sciences,
51(1), art. no. 19.</p> |
|-----|--|--|---|
-
- | | | | |
|-----|---|--|---|
| 22. | <p><u>Experimental study of the nanoscale gold Ohmic Contact's for prospective infrared detectors on a p-type HgCdTe</u></p> <p>View Paper</p> | <p>Gaur, S.K.,
Murtaza, Q.,
Mishra, R.S.</p> | <p>Optics Communications,
604, art. no. 132846.</p> |
|-----|---|--|---|
-
- | | | | |
|-----|--|--------------------------------------|--|
| 23. | <p><u>Exploring $f(Q)$ gravity through variable generalized Chaplygin gas and matter creation cosmology.</u></p> <p>View Paper</p> | <p>Bhardwaj, Y.,
Singh, C.P.</p> | <p>Astrophysics and Space
Science, 371(1), art. no. 4.</p> |
|-----|--|--------------------------------------|--|
-
- | | | | |
|-----|---|---------------------------------|---|
| 24. | <p><u>Exploring the Drivers of Augmented Reality Adoption: An Extension of the Technology Acceptance Model</u></p> <p>View Paper</p> | <p>Mishra, D.,
Jain, A.</p> | <p>Transforming Business
Industry and Education
for A Dynamic World,
pp. 233-248.</p> |
|-----|---|---------------------------------|---|
-
- | | | | |
|-----|---|---|---|
| 25. | <p><u>Extrapolating Wind-Induced Interference on Mono-Slope Roof of Low-Rise Buildings: CFD Simulation vs XG Boost Algorithm</u></p> <p>View Paper</p> | <p>Sharma, D.,
Pal, S.,
Raj, R.,
Bansal, N.</p> | <p>Journal of Vibration
Engineering and
Technologies, 14(1), art. no.
35.</p> |
|-----|---|---|---|



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)

26. **Fault Tolerant Decentralized Cooperative Target Tracking Using Event-Based Communications** Verma, J.K., Chhabra, J.K., Ranga, V. SN Computer Science, 7(1), art. no. 6.
[View Paper](#)
-
27. **Fine-tuning β -phase for high-performance h-BN/PVDF nanogenerators** Kumar, A., Sharma, S., Jayasimhadri, M., Puri, N.K. Journal of Materials Science Materials in Electronics, 37(2), art. no. 98.
[View Paper](#)
-
28. **First report on hydroelectric cell-driven gas sensor for the detection of ethanol at room temperature: A novel approach** Jain, N., Arora, H.K., Kumar, S., Puri, N.K. Sensors and Actuators A Physical, 395, art. no. 117003.
[View Paper](#)
-
29. **Harnessing Neem Gum (Azadirachta indica) as a Binder for Conducting Ink: Rheological and Electrical Properties** Mandal, S., Singh, S., Kanojia, Y., Kumar, J., Purwar, R. Polymer Engineering and Science.
-
30. **Highly sensitive Kretschmann configuration-based SPR biosensor employing Ag/Si/TiO₂ heterostructure for early malaria detection** Garg, D., Kumar, A. Journal of Computational Electronics, 25(1), art. no. 36.
[View Paper](#)



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL CONTRIBUTIONS OF DTU)

31. HybrBPF: Hybrid Bitcoin Price Prediction Framework Using Sentiment Analysis and Regression

Garg, A.,
Dhiman, C.,
Kaushik, A.

Generative Artificial Intelligence Technology and Applications, pp. 382-401.

[View Paper](#)

32. Impact of mixed phase 2D MoS₂ nano-flowers like structure to enhance coulombic efficiency and electrochemical parameters as an alternative anode material

Jain, A.,
Panwar, A.K.,
Rajput, S.,
Singh, S.,
Rattan, G.

Applied Physics A Materials Science and Processing, 132(1), art. no. 67.

[View Paper](#)

33. Influence of exposure orientation on the microstructure and mechanical properties of microwave-sintered SS316L-5 wt.% hydroxyapatite composites

Kumar, P.,
Lal, R.,
Singh, R.C.

Powder Metallurgy.

[View Paper](#)

34. Influence of surface irregularities on double layer hybrid circular porous journal bearing lubricated with pseudoplastic lubricant

Singh, A.,
Sharma, S.C.,
Chauhan, N.R.

Proceedings of the Institution of Mechanical Engineers Part J Journal of Engineering Tribology.

[View Paper](#)

35. Integrating Spirituality in Counselling: A Bibliometric Analysis and CIMO Framework Perspective

Harshita,
Maheshwari, N.

International Journal for the Advancement of Counselling, 48(1), art. no. 12.

[View Paper](#)



(A MONTHLY BULLETIN OF INTELLECTUAL
CONTRIBUTIONS OF DTU)

-
41. **PDBTM-IOV: Probability Distribution Based Trust Model for Internet of Vehicles** Bhardwaj, I., Bhardwaj, A., Khara, S. *Journal of Mobile Multimedia*, 21(3-4), pp. 379-392.
- [View Paper](#)
-
42. **Potentiality of advanced nanomaterial based on microorganisms for regenerative medicine** Ritu, Gulia, S., Singh, S., (...), Das, A., Chandra, P. *Advances in Microbial Nanotechnology Fundamentals and Applications*, pp. 187-226.
- [View Paper](#)
-
43. **Review: zinc alloys for biomedical applications—alloy design, processing techniques, and bio-functional performance** Kansal, A., Dixit, N., Kumar, S., Divedi, A., Kuamr, P. *Journal of Materials Science*.
- [View Paper](#)
-
44. **SBMEV: A Stacking-Based Meta-Ensemble Vehicle Classification Framework for Real-World Traffic Surveillance** Pateriya, P., Trivedi, A., Malhotra, R. *Applied Sciences Switzerland*, 16(1), art. no. 520.
- [View Paper](#)
-
45. **Smart pixels: Interpretable active dictionary learning with spatial coherence regularization for hyperspectral image classification** Maggu, J., Goel, A., Kumar, R. *Earth Science Informatics*, 19(1), art. no. 10.
- [View Paper](#)



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL
CONTRIBUTIONS OF DTU)

46. **Social determinants, household contexts, and economic correlates of self-rated health among older adults in India: Evidence from LASI** Narula, N. Educational Gerontology.
- [View Paper](#)
-
47. **Spatial multicriteria sorting with intuitionistic fuzzy entropy for the hospitality sector** Tiwari, A., Garg, A., Lohani, Q.M.D. Applied Soft Computing, 189, art. no. 114502.
- [View Paper](#)
-
48. **Spiritual Intelligence and Innovation: A Bibliometric Analysis and Future Research Agenda in the Asia-Pacific Region** Saini, R., Maheshwari, N. Journal of Religion and Health.
- [View Paper](#)
-
49. **Strategic Innovation for Sustainability: A Conceptual Model Linking Digitalization, Social Dynamics, and Climate Change Mitigation** Sharma, G., Kraus, S., Chopra, R., Dev, D., Ferraris, A. Business Strategy and the Environment.
- [View Paper](#)
-
50. **The extension and morphological dependence of dislocations on degradation of electrical properties of HgCdTe/CdZnTe detectors** Singh, R., Pal, R., Singh, B. Journal of Materials Science Materials in Electronics, 37(1), art. no. 9.
- [View Paper](#)



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL
CONTRIBUTIONS OF DTU)

-
51. **The role of nanofluids in enhancing thermal management and biomedical applications: A review**
Open Access
[View Paper](#)
- Sharma, A.,
Khanal, S.,
Suvedi, D., (...),
Peter, L.,
Kalova, M.
- Thermal Science and
Engineering Progress,
69, art. no. 104437.
-
52. **The virology of Omicron: pathophysiology, immune regulation, and clinical impact of SARS-CoV-2 sub variants**
Open Access
[View Paper](#)
- Mishra, N.,
Goel, T.,
Gangani, N., (...),
Sharma, J.G.,
Chandra, R.
- Virology Journal, 22(1), art.
no. 404.
-
53. **TLM-stack: A deep learning-based novel framework for soil nutrients estimation using hyperspectral data**
Open Access
[View Paper](#)
- Jain, S.,
Sethia, D.,
Tiwari, K.C.
- Computers and
Electronics in Agriculture,
243, art. no. 111381.
-
54. **Tracing Groundwater Contaminants for Sustainable Development Through Machine Learning Algorithm**
Open Access
[View Paper](#)
- Bharadwaj, S.,
Gupta, A.K.,
Sahu, A.K.
- Clean Soil Air Water,
53(12), art. no. e70083.
-
55. **Unveiling the longitudinal influence of augmented reality cosmetic applications on female buying behavior: A cross-lagged panel model analysis**
Open Access
[View Paper](#)
- Pant, V.,
Yadav, R.,
Beniwal, M.
- Journal of Retailing and
Consumer Services, 90,
art. no. 104711.
-



SAPIENTIA DTU

JANUARY 2026

(A MONTHLY BULLETIN OF INTELLECTUAL
CONTRIBUTIONS OF DTU)

56. **WSe2 quantum dot-based photoluminescent platform for ultrasensitive biosensing of hydrogen peroxide and glucose**
- Bhatt, N.,
Mehata, M.S.
- Materials Science and
Engineering B, 326, art. no.
119196.

[View Paper](#)



FOLLOW OUR OFFICIAL SOCIAL MEDIA PAGES FOR LIBRARY UPDATES, ANNOUNCEMENTS AND SERVICES

scan me



INSTAGRAM

scan me



LINKEDIN

scan me



YOUTUBE

scan me



FACEBOOK

scan me



DTU
REPOSITORY

scan me



OPAC

SAPIENTIA



SAPIENTIA DESIGNED AND COMPILED BY : ABHINAV UNIYAL (Counter Assistant)
EMAIL ID : abhinav_counterassistant@dtu.ac.in , uniyalabhinav96@gmail.com
PUBLISHER : DTU CENTRAL LIBRARY, DELHI TECHNOLOGICAL UNIVERSITY