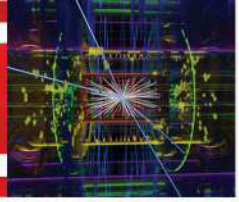


DEPARTMENT OF BASIC SCIENCES AND HUMANITIES

Communication Empowers



New Trends in Technology

Artificial Intelligence in Education: Opportunities and Challenges

Artificial Intelligence (AI) is transforming education by making learning more interactive, personalized, and efficient. From smart tutoring systems to automated grading and research assistance, AI is becoming an important part of academic life for students, teachers, and educational institutions.

Benefits of AI in Academics Personalized Learning :

AI-powered platforms adapt lessons to individual learning styles and pace, helping students understand concepts more effectively. **Improved Teaching Efficiency:**

Teachers can use AI to automate routine tasks such as grading assignments, preparing quizzes, and analyzing student performance. This allows them to focus more on teaching and mentoring.

Research Support:

AI helps researchers by analyzing large volumes of data, summarizing research papers, identifying trends, and assisting with literature reviews.

Enhanced Accessibility:

Features such as speech-to-text, text-to-speech, language translation, and real-time captions make education more inclusive for students with disabilities and diverse language backgrounds. **Enhanced Accessibility:**

AI-powered virtual tutors and chatbots provide instant answers to academic questions, enabling students to learn anytime and anywhere.

Challenges of AI in Education

- Overdependence on AI may reduce students' critical thinking and problem-solving skills.
- AI-generated content can encourage plagiarism or academic dishonesty if used irresponsibly.
- AI systems may occasionally provide inaccurate or biased information.
- Protecting student data and ensuring privacy remain important concerns.
- Unequal access to AI technologies can widen the digital divide among students.

"The future of education is not about humans versus AI—it is about humans and AI working together to create smarter, more inclusive learning experiences."

1. Dr. Sk. Mohiddin Shaw Professor and Heard of the Department of BS&H has published a paper on Predictive analysis of Ferro-Fluid toward nano Jeffery using BVP4C coupled with momentum slip and activity energy in the Scopus Indexed Journal Modern Physics Letters B.

2. Dr. Sk. Mohiddin Shaw Professor and Heard of the Department of BS&H has published a paper on AN INNOVATIVE STUDY ON HEAT FLUX AND MASS TRANSFER IN TWO-PHASE NANOFLUIDS WITH ACTIVATION ENERGY

CONSIDERATIONS in the Scopus Indexed journal Proceedings of engineering Sciences.

3. Dr. R. Mohan Ramana Asst.Professor of Mathematics Published a paper on MHD Mixed Convective Chemically Reacted HNF (Fe3O4-SiO2/H2O) Flow Analysis over a Stretching Cylinder in Scopus Indexed Journal named CDF Letters.

4. Dr. R. Mohan Ramana A sst.Professor of Mathematics Published a paper on Comparative analysis of impact of non-linear heat source on mixed convective chemically reacted MHD hybrid nanofluid/nanofluid/fluid over a stretched region in Scopus Indexed Journal named International Journal of Thermofluids (ELSEVIER).

5. Dr. R. Mohan Ramana Asst.Professor of Mathematics Published a paper on Comparative numerical analysis of rotating flow of a stretching sheet with hall current, ther mal diffusion and heat source for an MHD base fluid, casson nanofluid, and hybrid nanofluid in Scopus Indexed journal named Computational Methods for Differential Equations.

6. Dr. R. Mohan Ramana Asst.Professor of Mathematics Published a paper on Numerical simulation of chemically reacted hybrid nanofluid Forchheimer flow across a porous cone/wedge with radiation absorption in a Scopus Indexed journal named International Journal of Thermofluids(ELSEVIER).

7. Dr. R. Mohan Ramana Asst.Professor of Mathematics Published a paper on Assessment of the Most Effective Approach for Feature Acquisition Utilizing Variational Quantum Classifiers for Real-World Datasets in a Scopus Indexed journal named proceedings of INCOWOCO 2025.

8. Dr. R. Mohan Ramana Asst.Professor of Mathematics Published a paper on Magnetohydrodynamic heat and mass transport in Non-Newtonian nanofluids over a stretching surface with Joule heating and viscous dissipation effects in a Scopus Indexed journal named Chemical Product and Processing Modelling (DE GRUYTER).

9. Dr. V. Aruna Assoc.Professor of English published a paper on Mobile Computing for Language Assessment in Large-Scale English Testing: A Study of Efficient and Scalable Solutions in a Scopus Indexed journal.

10. Dr. V. Aruna Assoc.Professor of English published a paper on Improving English Text Machine Translation Quality with Cutting-Edge Neural Network Systems in a Scopus Indexed Journal.

11. Dr. G.R.K. Murthy Asst. Professor of English has participated in the 5 day faculty Development program on "Developing English language Teaching Materials using AI tools" Conducted by Sharayu Group of Institutions.

12. Dr. Poli Reddy.V Asst.Professor of Physics published a paper on Influence of surface oxygen vacancies on the photocatalytic activity of Aurivillius-type Bi3NbTiO9 nanoparticles in a Scopus Indexed Journal named Applied Physics A.

13. Dr. Poli Reddy.V Asst.Professor of Physics published a paper on Interplay of layered Aurivillius structure and nanoscale morphology in Bi3TiNbO9 nanoparticles for ferroelectric and photocatalytic applications in a Scopus Indexed journal named Materials Chemistry and Physics.

14. Dr.K. Sreenivasulu Asst. Professor of environmental Sciences Published a paper on Air Quality Index Prediction Based on Different Technique in Machine Learning in New Delhi in Scopus Indexed journal named Journal of Information Systems Engineering and Management.

15. Dr.K. Sreenivasulu Asst. Professor of environmental Sciences Published a paper on CNN-BIGRU Model Used for Intelligent Smart Farming Agriculture in Rural Areas India in Scopus Indexed journal named 2025 International Conference on Advances in Next-Gen Computer Science (ICANCS)

16. Dr.K. Sreenivasulu Asst. Professor of environmental Sciences Published a paper on Exceptional Pyroelectric Performances in Infrared Detectors Employing NKBT-KNb Lead-Free Ceramics in Scopus Indexed journal named Solid State Communications

17. Mr.M. PURNACHANDRA RAO Asst.Professor of English Presented a paper on Secure Artificial Intelligence Systems for Edge-IoT Environments Using Federated Learning in Scopus Indexed named 2026 3rd International Conference on Emerging Trends in Engineering and Medical Sciences (ICETEMS)

18. Mrs.V. Radha Asst.Professor of Mathematics Published a paper on Energy Flux and kinetic energy Analysis of MHD natural convection of Ag -MgO/ water hybrid nanofluid in a porous trapezoidal enclosure with an internal heated on obstacle in a Scopus Indexed Journal named Next Nano technology (ELSEVIER).

19. Mrs.V. Radha Asst.Professor of Mathematics Published a paper on Boolean logic frameworks for App-Integrated Voice Controlled Home Automation in a Scopus Indexed Journal named Dizhen Dizhi Journal.