DEPARTMENT OF INFORMATION TECHNOLOGY 2022-2023



GLIMPSE OF IT •



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A "GLIMPSE OF IT" NEWSLETTER :

The department newsletter "Glimpse of IT" is published once a year. It primarily focuses on the department's important events, student and faculty publications, accomplishments, campus placement, industry interactions, visits, and details about higher education.

> Editorial Incharge: Prof. Sunita Varma Ms. Puja Gupta Mr. Upendra Singh Mrs. Sonu Airen Mrs. Megha Kuliha

Topper of the Year



Kashish Chugh Topper B.Tech 4th Year CGPA: 8.82



Aryan Gupta Topper B.E. 3rd Year CGPA:9.67



Siddhi Jain Topper B.E. 2nd Year CGPA : 9.19



Rohan Shah Topper MCA 1st Year CGPA : 9.63



Ankit Kumar Topper MCA 2nd Year CGPA:9.44



Topper M.Tech 1st Year CGPA : 7.95

Placements

Top Placement Companies



Best Placements



Shruti Singh (IT) Company: Intuit Role: Software Development Engineer Package: 42 LPA [Lakhs per annum]



Jatin Bajaj (IT) Company: Goldman Sachs Role: Software Development Engineer Package: 24 LPA [Lakhs per annum] Ashvinee Mohane (MCA) Company: Optum Inc Role: Software Development Engineer Package: 14.99 LPA [Lakhs per annum]

Samriddhi Shrivastava (MCA) Company: Optum Inc Role: Software Development Engineer Package: 14.99 LPA [Lakhs per annum]

Snehal Maheskey (MCA) Company: Optum Inc Role: Software Development Engineer Package: 14.99 LPA [Lakhs per annum]

Smart Surveillance using Deep Learning Model

By Prof. Upendra Singh

Smart surveillance powered by deep learning revolutionizes security by autonomously analyzing real-time video feeds, swiftly detecting anomalies, and reducing reliance on human monitoring. These adaptable systems offer tailored solutions for various security needs, incorporating features like facial recognition and behavior analysis. As deep learning technology advances, smart surveillance is poised to become even more sophisticated, providing enhanced security in diverse environments and contributing to a safer society.

Lung cancer Detection using Deep Learning ResNet Model

By Prof. Sunita Varma, Prof. Vivek Menon

The utilization of deep learning, specifically the ResNet model, in lung cancer detection signifies a significant breakthrough in medical imaging. By leveraging its depth and capacity to learn intricate features, ResNet enhances the identification of subtle patterns indicative of cancerous growths in high-resolution lung scans. This innovative application holds the promise of improving diagnostic accuracy, facilitating earlier cancer detection, and ultimately advancing patient care through the intersection of artificial intelligence and healthcare.

Organ Donation Management using Blockchain Technology

By Prof. Megha Kuliha

Leveraging blockchain technology in organ donation establishes a decentralized and transparent registry, ensuring an immutable record of transactions and data related to donors and recipients. The key benefits include heightened security, traceability, and accountability, as each action is securely recorded on the distributed ledger, minimizing the risk of fraud and fostering trust within the organ donation ecosystem. This application of blockchain holds promise for advancing the reliability and integrity of organ transplantation processes.

Physical Workout Monitoring System employing Artificial Intelligence and the Internet of Things

By Prof. K.K. Sharma, Prof. Rohit Jain

The integration of AI algorithms with IoT devices in the Physical Workout Monitoring System represents a transformative approach to fitness. By collecting and analyzing real-time data from wearable sensors and smart equipment, this system provides personalized insights, monitors progress, and predicts potential health risks. The synergy between AI and IoT not only enhances the effectiveness of workouts but also prioritizes user safety by offering real-time feedback on overexertion and form. This innovative approach showcases the power of combining AI and IoT to revolutionize health and fitness, offering users a more informed, efficient, and safe journey toward physical well-being.

West Syndrome Analysis using Deep Learning Model

By Prof Mukul Shukla, Prof. Jasmeet Kaur

The integration of deep learning models in diagnosing West Syndrome signifies a significant advancement in pediatric neurology. By leveraging AI's capability to identify subtle patterns in large datasets, particularly within EEG recordings, these models hold promise for earlier and more accurate detection of the unique hypsarrhythmia pattern associated with West Syndrome. Beyond diagnosis, deep learning offers the potential to analyze treatment responses over time, aiding in personalized treatment approaches and enhancing our overall understanding of this complex condition. While still evolving, the application of deep learning in West Syndrome underscores its potential as a valuable tool for improving care and outcomes in affected infants as technology continues to progress.

College Community Centre

By Prof. Lalit Purohit, Prof. Neha Agarwal

The College Community Centre (CCC) is the campus hub, fostering community, collaboration, and diverse activities. With meeting spaces, recreational facilities, and offices for student organizations, the CCC enhances the college experience. It serves as a venue for governance, events, and personal development, creating a vital, inclusive space that supports students' well-being and engagement. The CCC is the dynamic core of campus life.

Dance form recognition using computer vision

By Prof. Chandra Prakash Senger, Prof. Praveen Goyal

Dance form recognition, a dynamic application of computer vision, combines dance and technology to automatically identify and classify different dance styles. Using deep learning models like convolutional neural networks (CNNs), it analyzes visual cues in labeled dance videos, distinguishing between styles such as ballet, hip-hop, and salsa. This technology has diverse applications, enhancing interactive learning, virtual dance tutoring, and preserving cultural heritage. In entertainment and education, it provides real-time feedback to improve technique. Advancements in computer vision promise exciting possibilities for the future integration of dance and technology.

A movie and web series recommendation system using facial expression recognition

By Prof. Sonu Aairen, Ms. Kavita Lodhi

A facial expression recognition-based movie and web series recommendation system employs AI and computer vision to analyze viewers' emotional responses. By interpreting facial cues during content consumption, the system refines recommendations based on individual preferences, enhancing user experience beyond traditional algorithms. As technology advances, this innovative approach promises a more engaging and personalized interaction with entertainment choices.

Sign Language Analysis using Machine Learning

By Prof. Manjeet Soni

Sign language analysis through machine learning is revolutionizing communication for the deaf and hard-of-hearing. By training models on sign language gestures using advanced algorithms like CNNs, this technology translates sign language into text or speech in real-time, promoting accessibility. With applications in education and immediate feedback, ongoing advancements in machine learning hold the promise of further reducing communication barriers, creating a more inclusive society for sign language users.

Link prediction in social networks using an enhanced Bi-directional Long Short-Term Memory (Bi-LSTM) model

By Prof. Mukesh Sakle

Enhanced Bi-LSTM models are advancing link prediction in social networks, forecasting future connections between users. With a two-way structure capturing sequential data, these models analyze complex user interactions. By incorporating additional features and techniques like attention mechanisms, they consider broader social contexts, improving predictive accuracy. Link prediction techniques have applications in friend recommendations, community detection, and understanding network evolution, promising more engaging and personalized social experiences as the enhanced Bi-LSTM model evolves.

An Al-based Online Exam Proctoring Framework

By Prof Puja Gupta

Al-based online proctoring safeguards exam integrity through various technologies such as face recognition, eye-tracking, and machine learning to monitor and analyze student behavior. Secure browser tools prevent unauthorized access during tests, and the test environment is thoroughly documented with audio and video for added deterrence against misconduct. The adaptable nature of AI enables effective performance in diverse testing situations, ensuring continued exam validity and fairness. This comprehensive solution boosts confidence in educators and institutions, upholding high academic standards.

Indian Grant Patents

A Smart Road Asset Management System and Method

Inventor Name: Mr.Upendra Singh Applicant Name: Indian Institute of Science Bangalore

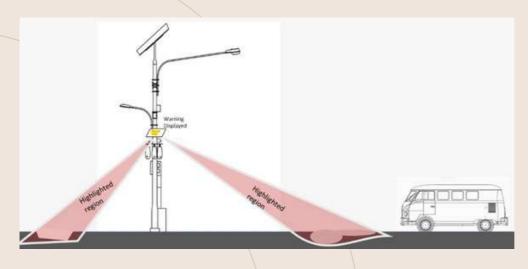


A System for Automatic Segregation of Waste Materials

Applicant Name: Ms.Puja Gupta, Mr. Upendra Singh

A Smart Light Pole System

Applicant Name: Ms.Puja Gupta, Mr.Upendra Singh



Research Papers

Intelligent Home

Dr. Lalit Purohit Intelligent Server Node-Based Systems, 133-154, 2023

Web Service Composition using an Al Planning Technique

Dr. Lalit Purohit Innovative Engineering with AI Applications, 65-82, 2023

Feature Selection and Clustering based webservice Selection using QoSs

Dr. Lalit Purohit Applied Intelligence 53(11), 13352-13377, 2023

A QoSs-Aware Clustering based Multi-Layer Model for Web Service Selection

Dr. Lalit Purohit IEEE Transactions on Services Computing, 2023

A Comprehensive Study on the Latest Trends of Cyber Security in the Medical Managment

Dr. Lalit Purohit Available at SSRN 4361044, 2023

Feature Selection-based Spam Detection System in SMS and Email Domain

Dr. Lalit Purohit Sentiment Analysis and Deep Learning, Proceedings of ICSADL 2022, 37-52, 2023

Spam Message Detection: A Review

Dr. Lalit Purohit International Journal Of Computing and Digital Systems, pages: 439-451 Publisher - University of Bahrain

Activity detection and counting people using Mask-RCNN with bidirectional ConvLSTM

Ms. Puja Gupta, Upendra Singh, Mukul Shukla Journal of Intelligent & Fuzzy Systems, 1-16

The Impact of Artificial Intelligence on Renewable Energy Systems

Ms. Puja Gupta NeuroQuantology

Acknowledgment of patient in sense behaviors using bidirectional ConvLSTM

Ms. Puja Gupta, Dr. Sunita Varma, Mr. Mukul Shukla, Mr. Upendra Singh Concurrency and Computation: Practice and Experience

A Novel of Congestion Control Architecture

Dr. Sunita Varma

An ultra-area-efficient ALU design in QCA technology using synchronized clock zone scheme

Upendra Singh SuperComputing

Research Papers

Classify-Imbalance Data Sets in IoT Framework of Agriculture Field with Multivariate Sensors Using Centroid-Based Oversampling Method

Dr. Sunita Varma

Analysis of Large SARS-CoV-2 Data using Scalable Genetic Algorithm with Enhanced Bi-LSTM

Upendra Singh Method. International Journal of Intelligent Systems and Applications in Engineering,

Chitle Award for Best talent

Shobhit Pal

To the overall best student with excellent record in Academics, Sports, Extra-Curricular Activities



Late Shri K.A. Chitale Medal

Sumayya Ali was felicitated with Late Shri K.A. Chitale medal. It is awarded to the student of the institute during each academic year for outstanding Social Work.



Proudly Alumni

DSP के पद पर कार्यरत मुरैना के अजय गुप्ता को मिली भारतीय वन सेवा एग्जाम में पांचवीं रैंक

मुरैना: मध्यप्रदेश पुलिस में उप पुलिस अधीक्षक अजाक सतना के पद पर पदस्थ अजय गुप्ता ने चम्बलांचल को एक बार फिर से गौरवान्वित कर दिया है. संघ लोक सेवा आयोग (UPSC) की परीक्षा परिणाम में अजय गुप्ता को भारतीय वन सेवा की श्रेणी में 5वां स्थान प्राप्त हुआ है. विदित हो कि मुरैना जिले की पोरसा तहसील मुख्यालय पर निवासरत चन्द्रप्रकाश गुप्ता एवं श्रीमती पुष्पादेवी गुप्ता के पुत्र अजय गुप्ता देश की सबसे बड़ी सेवा भारतीय प्रशासनिक, पुलिस, विदेश, वन सेवा में अपनी पदस्थापना के लिए निरंतर संघर्ष कर रहे थे.

बता दें कि बीते माह एमपीपीएससी की परीक्षा परिणाम में प्रथम स्थान पाने वाले अजय ने अपनी इच्छा को पुरा कर लिया है और वह वन सेवा में अपने दायित्वों का निर्वहन करेंगे.



तीसरी पीढ़ी बनेगी प्रशासनिक अधिकारी



इंदौर के 23 वर्षीय पार्थसारथी शर्मा ने तीसरी रैंक हासिल की। वे अपने परिवार में पीएससी क्लीयर करने वाले लगातार तीसरी पीढी के सदस्य हैं। उनके पिता देवास में तहसीलदार और दादा भी प्रशासनिक अधिकारी रह चुके हैं।

नीमच की बेटी आर्ची हरित बनी डिप्टी कलेक्टर

एमपी पीएससी के पहले प्रयास बनी रेंजर, दूसरी प्रयास में पाई 16वीं रेंक

स्कूल से हुई है। इंदौर जीएसआईटीएस के कॉलेज से आईटी में बीई करने के बाद सिविल सर्विस की तैयारी की। पहले ही प्रयास में वर्ष 2018 में रेंजर पद चयनित

बनने का था, इसलिए संघर्ष जारी रखा और वर्ष 2019 में लोक सेवा

आयोग की परीक्षा फिर दी और 16

वीं रैंक बनाते हुए डिप्टी कलेक्टर

के पद पर चयनित हुई है। आर्ची

हरित परिवार का ग्राम गिरदौड़ा

का संस्कारवान और उच्च शिक्षित

परिवार हैं।



नीमच 27 दिसम्बर (निप्र)। नीमच की बेटी आर्ची हरित के पिता मोहनलाल हरित और मां अंजली हरित छोटे से गांव गिरदौड़ा के मूल निवासी है। पिता

मोहनलाल हरित डीएफओ पद से सेवानिवत आईएफएस अधिकारी है और इंदौर में निवास करते हैं। ताऊजी जगदीश प्रसाद हरित सेवानिवृत शिक्षक है और संस्कृति के प्रकांड पंडित है, साथ ही आर्य समाज के वरिष्ठ सदस्य है जो गांव में ही निवास करते हैं। आर्ची की स्कुलिंग रतलाम के सेंट जोसफ

Dr. K.K. Haldar Hosteller Excellence Award





Prashant Mudgal

Shri K.G. Seksaria Gold Medal

Seksaria Gold Medal for Aggregate Topper

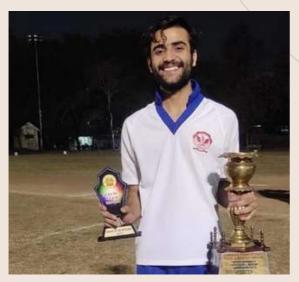
Ayushi Maheshwari IT 2022 Topper



Sports Achievers







Yash Saraswat Nodal Chess Tournament at SD Bansal College, Indore Position Achieved – Runner Up



Yash Saraswat Led as Captain of IT Branch in the Inter-Branch Football Tournament



Yash Saraswat Led as Captain of IT Branch in the Inter-Branch Chess Tournament



Faraz Khan First Year, Information Technology

Vision of the Department

To create IT technocrats equipped with skills, ethics, and social values for developing globalized and technological solutions for betterment of society through transformative education.

Mission of the Department

- To Enable students become technocrats who can cater the growing manpower need of the industry for economic development.
- To build a centre of excellence on frontier areas of Information Technology and related domain.
- To impart quality and value based education in Information Technology to enable students solve real world problems with an inclination towards betterment of society.

A Note from the Head of Department



"Recently, we have witnessed so many natural calamities and alarming changes in the global climate, including rapidly increasing global warming. These are challenging the further survival of this beautiful earth we live in. We should take into consideration how much we have been able to use research to serve the lowest and most vulnerable strata of society. In our approach to sustainable development, we should not forget that it is by strengthening the people at the base of the pyramid that the entire edifice of society becomes healthy and strong."

- Dr. K.K. Sharma

Head of Department, Information Technology

Designed by-

- Raj Verma
- Pavesh kanungo
- Kaustubh Pawgi

Editorial Board:



Ms. Sunita Varma (Professor)



Ms. Puja Gupta (Assistant Professor)



Mr. Upendra Singh (Assistant Professor)

#INCLUDE SESSION 2022 - 23

Departmental #include club:

The Department establishes a Technical club "# Include" directed by final year, third-year students and affiliated with second-year students in order to foster technical knowledge, teamwork, and personal growth. This student society is led by the Head of Department as President and backed by faculty members as Vice-Presidents, as well as a team of students serving as General Secretary, Secretary, and Joint Secretary. The President appoints the Vice President, General Secretary, and Secretary, while the remaining positions are filled through appropriate auditions with the approval of the previous year's President, Vice-President, and General Secretary before the start of each academic session.

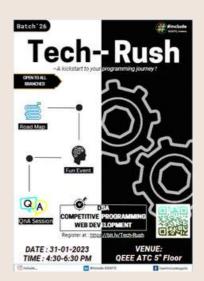
Mern Stack Bootcamp

The event was conducted offline at LT-302. It gave interested participants an idea about development through MongoDB, React JS, ExpressJS and NodeJS and also included a hands on experience for them through a notes app project. The session covered everything from frontend to backend specifics of the application.



Tech-Rush

The event was conducted offline at seminar hall at 5th floor of ATC building. It was mainly conducted for all freshers of 2026 batch to guide them about the programming domains they can explore to improve their skills. It was designed in a way that the doubts and problems that they usually face in learning about DSA, Competitive programming and Web Development are addressed in an ordered manner.



#INCLUDE SESSION 2022 - 23

Resume Building

The event was conducted in offline mode at LT 201. It was mainly conducted for the batch of 2026 for the correct knowledge of building a resume and few activities one should plan so that they can write in resumes. Insider tips from industry experts, startup founder and alumni were given. Vivek Sheel Banger sir addressed the session online and Anjul Sahu sir addressed it offline. Best practices for resume writing and tailored advice for specific career goals were discussed.

Design Dazzle

Design Dazzle was a three-day online web development event in which students participated in teams, working on the frontend development of the project using HTML and CSS. The event was a mentorship program in which mentors were assigned to each team, to guide and track the progress of the team. It was conducted for the batch of 2026 and 2027.







Pavesh kanungo Kaustubh Pawgi



Dr. Lalit Purohit - Incharge, #include



Mrs. Megha Kuliha - Incharge, #include