

Editorial

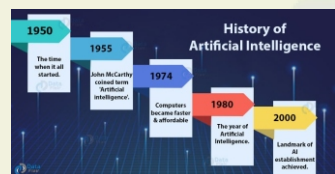
AI and higher education: a game changer



A recent viral video showcased AI-driven robotic surgery capable of head transplants without human intervention, highlighting the potential of virtual simulations. A biomedical robotics startup has introduced what it claims could be the world's first robotic head transplant system. The startup, BrainBridge, said the procedure could offer patients suffering from terminal illnesses a new chance of life by transplanting their heads onto

healthy donor bodies. This viral video highly sensitized me to understand the AI and its future and share it among our fellow colleague.

Actually, the world is rapidly evolving due to the Fourth Industrial Revolution (R 4.0). Advancements in information communication technology along with internet of things (IoT), creating a cyber world that significantly influences our lives. Actually, we are at the transition state of R 4.0 to R 5.0 where Artificial Intelligence is taking the world by storm. Industrial production's efficiency has improved with digital control. Higher Education Institutions (HEI) are no exception to this dramatic change. HEIs are adapting to the technological shift by embracing digital-driven knowledge dissemination and learning processes. On the other side the National Education Policy (NEP) 2020 emphasizes technology-centric higher education.



Evolution of AI date backs to 1943 when McCulloch and Pitts proposed a model of artificial neurons. In 1950 Turing published "Computing machinery and intelligence" and proposed the Turing Test, in 1956 McCarthy coined the term "artificial intelligence", in 1958 McCarthy created LISP, the first AI programming language and comes 1961 when the first industrial robot, Unimate, began working at General Motors. During 1970s–1990s the expert

systems were developed to replicate human decision-making. The AI winter began in the 1970s and continued into the 1990s. Neural networks and support vector machines were developed during this period. The modern AI phase comes in 2000 onwards when AI is used in healthcare to improve data collection and processing, surgical procedures, and electronic health records. Its uses expanded in manufacturing, customer care, and driving to automate repetitive and dangerous tasks, in e-commerce to make product recommendations. AI is used in genetic engineering to sequence RNA for vaccines and model human speech. Now it has expanded its horizon to develop generative AI models that can produce text, audio, and images. AI collects and organizes large amounts of information to make insights and predicts that are beyond the human capabilities of manual processing. With its increasing organizational efficiencies, the likelihood of a mistake and detected irregular patterns is reduced. So, if we talk about spam or fraud, or the warning it provides to business in real-time about suspicious activity, a lot has been safeguarded already. It has reduced cost and helped the business to increase their share of profits. Starting from healthcare, education, e-commerce to water power, electricity and assembly lines, everything is automated. Such machines and technologies have helped humans to achieve efficiency and effectiveness.

AI can provide tailored programmes to the students' needs, and offer feedback to help them to improve. AI can help in administrative tasks like grading and course policy creation. Chatbots are now helping in coding and help researchers in analysing their research data in a more pragmatic way. The instructors or faculty members have support through AI to focus on research and creative student-focused goals. AI can be very helpful in students with learning disabilities, neurodiversity, and address mental health issues. There is a big shift in a way we live, work and relate to one another due to the adoption of cyber-physical systems, Internet of Things and the Internet of Systems. With Self Aware Systems, human-like intelligence has been developed. With Artificial Superintelligence and AI algorithms, the machines are capable of outperforming the smartest of humans in every single domain.

We all know what the future is, but there is a bit of uncertainty of how it will be presented and what changes will it do to the generations. Will it have a positive impact or will there be some negative repercussions?

Until now, there have also been some Artificial Intelligence systems that were specialists, e.g. AlphaGo (Zero), that mastered Go and were able to outperform human Grandmaster player. Superintelligence takes Artificial Intelligence to the next stage. Superintelligence refers to smarter than a human platform that can outperform a human in any intellectual task.

The question, when there will be AGI and when there will be superintelligence, is, of course, difficult to answer (as nearly all answers refer to future prediction). Nick Bostrom, who is an AI researcher at Oxford University, evaluates this question in a paper.

Stephen Hawking, Elon Musk, and Bill Gates have cautioned and they predict the negative aspects of AI. They say "I will eagerly be looking to see what researchers produce in this field in the future. Be it Artificial Intelligence, Superintelligence – AI takeover?"

Dr. B K Sinha

RESEARCH COMMUNICATION

Banra, S., Choudhary, J. S., Khalaf, L. K., Paray, B. A., Al-Sadoon, M. K., Thakur, A. K., Kumari, K., Oraon, P. K., and Naaz, A. (2025). Comparative Assessment of Different Rearing Diets on the Developmental and Reproductive Behaviour of Fall Armyworm, *Spodoptera frugiperda* (Lepidoptera: Noctuidae). *Neotropical Entomology*, 54(41).

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The fall armyworm (*Spodoptera frugiperda*) is a highly damaging pest that threatens crops worldwide, particularly maize, rice, and sugarcane. This pest feeds on over 350 plant species and poses a significant risk to global food security. A recent study investigated how different diets impact the growth and reproduction of fall armyworms. Researchers tested four feeding options: maize leaves, artificial food, castor leaves, and a combination of maize leaves (for early larvae stages) and artificial food (for later stages). The results revealed that larvae on the mixed maize-artificial diet developed faster, survived longer, and produced more eggs than those on other diets. In contrast, larvae fed on castor leaves grew more slowly and laid fewer eggs. This study highlights the critical role diet plays in the growth and reproduction of fall armyworms. By understanding their feeding preferences, researchers can develop more effective pest management strategies and biological control methods, ultimately reducing the need for chemical pesticides. Additionally, this knowledge can aid in the mass rearing of fall armyworms for biological control programs, providing sustainable solutions to combat this agricultural threat. Understanding what pests eat can significantly influence crop protection and food security strategies.

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NEWS, ACTIVITIES AND ACHIEVEMENTS

A Two-Day International Conference on Women's Discourse in Indian Historiography

The Department of History, Ranchi University, successfully organized on 11 January, 2025 a two-day "All India Women Historians' Convention" on the theme "Women's Discourse in Indian Historiography" at Aryabhata Auditorium, Ranchi. The prestigious academic event was inaugurated in the esteemed presence of Honorable Governor Mr. Santosh Gangwar, while Honorable Vice-Chancellor Dr. Ajit Kumar Sinha presided over the conference. The convention brought together renowned historians, scholars, researchers, and academicians from across India and abroad to explore the role of women in shaping historical narratives. The discussions focused on women's representation in Indian history, gender perspectives in historiography, and the contributions of women historians in redefining historical interpretations. In his inaugural address, Honorable Governor Mr. Santosh Gangwar emphasized the importance of inclusive historical research and the need to acknowledge the voices of women in historiography. Vice-Chancellor Dr. Ajit Kumar Sinha highlighted Ranchi University's commitment to promoting research on gender studies and empowering women scholars in the field of history. The two-day event featured panel discussions, keynote addresses, research paper presentations, and interactive sessions, where eminent scholars shared their insights on diverse aspects of women's history in India. Participants engaged in thought-provoking debates and exchanged ideas to enrich the historiographical discourse. The conference received an overwhelming response from students, researchers, and faculty members, making it a landmark event in the academic calendar of Ranchi University. The Department of History expressed gratitude to all dignitaries, speakers, and attendees for their valuable contributions, ensuring the success of the convention.



Workshop on Global Career Opportunities by IMS

The Institute of Management Studies (IMS), Ranchi University, successfully organized a workshop on "Global Career Opportunities" on January 4, 2025. The event aimed to provide students with insights into international career prospects, emerging global job trends, and strategies for professional success in a competitive world. Eminent industry experts, career counselors, and academicians were invited to share their knowledge and guide students on various career pathways, including higher education abroad, corporate opportunities, and entrepreneurship. Interactive sessions, panel discussions, and real-world case studies were integral parts of the workshop, ensuring a comprehensive learning experience for participants. The workshop was attended by students, faculty members, and distinguished guests, making it a highly engaging and insightful event. The initiative taken by IMS, Ranchi University, was widely appreciated, as it provided valuable guidance to students aspiring for global career opportunities.

UGC Accessibility Audit Team Visit



Ranchi University had the honor of welcoming the UGC Accessibility Audit Team (Prof. G. Ramakrishna Reddy- *Expert*, Dr. Himangshu Das- *Representative*, Dr. Amol Andhare- *UGC Coordinator*), which visited the campus on 10 January, 2025 to assess and ensure accessibility for differently-abled students, faculty, and staff. The Honorable Vice-Chancellor, Dr. Ajit Kumar Sinha, extended a warm welcome to the team and expressed the university's commitment to fostering an inclusive and accessible learning environment. During the visit, the audit team conducted a thorough evaluation of the university's infrastructure, including ramps, elevators, accessible restrooms, and other facilities designed to support individuals with disabilities. They also interacted with differently-abled students, teachers, and staff members to understand their experiences, challenges, and suggestions for further improvements. The discussions highlighted Ranchi University's ongoing efforts to enhance accessibility through assistive technologies, inclusive learning resources, and infrastructural developments. The audit team appreciated the university's initiatives and provided valuable recommendations for further strengthening accessibility measures. The visit reinforced Ranchi University's commitment to creating an inclusive academic environment where every student has equal opportunities to

learn and thrive. The university looks forward to implementing the team's recommendations to further enhance accessibility and inclusivity on campus.

Ranchi University Team Flagged off to Participation in East Zone Inter-University Youth Festival

A 48-member team from Ranchi University flagged off on 06 Jan, 2025 for Sister Nivedita University, West Bengal, to participate in the prestigious East Zone Inter-University Youth Festival. This vibrant cultural and artistic festival brings together students from various universities to showcase their talents in music, dance, drama, literary arts, and fine arts. The event provides a platform for young artists to exchange cultural ideas, enhance their creative skills, and foster a spirit of unity and teamwork. Before their flagged off, university officials and faculty members extended their best wishes to the team, encouraging them to perform with enthusiasm and bring laurels to the university. The students expressed their excitement and commitment to making a mark in the festival through their performances. The East Zone Inter-University Youth Festival is a significant event that promotes cultural exchange and artistic excellence among students from different universities.



Indian Startup Association at Ranchi University

A significant meeting was held on **17 January, 2025** at the IQAC Conference Hall, Ranchi University, with representatives of the Indian Startup Association (ISA) to discuss and initiate positive steps towards fostering startups and innovation within the university ecosystem. This meeting marked a crucial step in strengthening collaboration between academia and the entrepreneurial sector. During the meeting, experts from the Indian Startup Association shared insights on startup incubation, funding opportunities, and innovation-driven entrepreneurship, encouraging students and faculty to engage in the startup ecosystem. The discussions focused on creating a robust startup culture, providing mentorship, and developing resources to support budding entrepreneurs at Ranchi University. In recognition of their commitment and contributions, representatives from the university were nominated as Honorary Advisors by the Indian Startup Association. This nomination reflects the growing role of Ranchi University in nurturing entrepreneurial talent and supporting innovative ventures. University officials expressed their enthusiasm for this partnership, highlighting the importance of industry-academia collaboration in empowering students with entrepreneurial skills. They emphasized that this initiative would open new avenues for research, funding, and mentorship, enabling students to transform their ideas into successful startups. With this progressive step, Ranchi University continues to strengthen its focus on innovation, entrepreneurship, and skill development, aligning with national initiatives to build a self-reliant and dynamic startup ecosystem.



MoU with NSDC

In a landmark initiative, Ranchi University signed a Memorandum of Understanding (MoU) with the National Skill Development Corporation International (NSDC) on 21 January, 2025 at the IQAC Seminar Hall, Morabadi Campus. This collaboration aims to equip students with industry-relevant skills, fostering employability and entrepreneurship in alignment with the National Skill Development Mission. The MoU was signed in the esteemed presence of Honorable Vice-Chancellor Dr. Ajit Kumar Sinha and Mr. Alok Kumar, CEO of NSDC International, under the Ministry of Skill Development and Entrepreneurship, Government of India. This partnership underscores the university's commitment to empowering students with practical skills that contribute to socio-economic growth. In his address, Dr. Ajit Kumar Sinha emphasized that this initiative is a significant step toward bridging the gap between academia and industry, ensuring that students of Ranchi University, Jharkhand, receive comprehensive skill training to enhance their career prospects. He further highlighted that this initiative aims to uplift all sections of society by providing inclusive opportunities for skill development and employment. A moment of pride for Ranchi University, this MoU makes it the first university in Eastern India to collaborate with NSDC, setting a benchmark for skill-based education. This historic agreement opens doors to training programs, certification courses, and industry partnerships, enabling students to gain a competitive edge in the job market. The university community extends heartfelt congratulations to all stakeholders involved in making this transformative initiative a reality. With this collaboration, Ranchi University reinforces its vision of creating a skilled, self-reliant, and future-ready workforce for the nation.



Felicitation of supernuated faculty members



The felicitation ceremony for superannuated faculty members of Ranchi University was held to honor their dedication and contributions to the institution.

Dr. Gurucharan Sahu Appointed as Registrar(IC) of Ranchi University



Ranchi University proudly announces the appointment of Dr. Gurucharan Sahu, Assistant Professor, as the In-Charge Registrar of the university.

Swami Vivekananda Jayanti and National Youth Day

Ranchi University commemorated Swami Vivekananda Jayanti and National Youth Day with great enthusiasm and reverence. The event, organized by the National Service Scheme (NSS), Ranchi University, was held at the School of Mass Communication, Ranchi University campus on 12 January, 2025. The Honorable Vice-Chancellor, Dr. Ajit Kumar Sinha, graced the occasion as the Chief Guest and paid tribute to Swami Vivekananda, highlighting his teachings and their relevance to today's youth. In his address to the gathering, Dr. Ajit Kumar Sinha emphasized that National Youth Day is dedicated to empowering young minds and fostering a progressive, youthful India. He underscored Swami Vivekananda's vision of self-discipline, education, and service to society, urging students to embrace knowledge and wisdom beyond social media engagement. He encouraged youth to reconnect with books, set clear goals, and remain committed to the nation's development. The event featured motivational speeches, cultural performances, and interactive discussions focusing on Swami Vivekananda's philosophy and its impact on contemporary society. NSS volunteers actively participated in the program, reinforcing the values of leadership, self-reliance, and service. Ranchi University continues to uphold Swami Vivekananda's ideals, inspiring students to pursue excellence and contribute to nation-building. The celebration concluded with a collective pledge by students and faculty to follow the path of dedication, perseverance, and moral strength, as advocated by the great spiritual leader.



National Voters' Day Observed

Ranchi, January 25, 2025 – Ranchi University celebrated National Voters' Day with enthusiasm and a strong commitment to democratic values. On this occasion, students of the university participated in an oath-taking ceremony, pledging to exercise their right to vote responsibly and contribute to the democratic process. Faculty members and student representatives addressed the gathering, emphasizing the importance of voting in a democracy. Students were educated about their rights as voters and the significance of making informed choices during elections. The speakers highlighted that voting is not just a right but a fundamental duty toward the nation, essential for building a strong and accountable governance system. The event aimed to instill a sense of civic responsibility among young voters and encourage greater participation in the electoral process. Various activities, including discussions on electoral awareness and the role of youth in democracy, were conducted to engage students in meaningful conversations about their role as responsible citizens. Ranchi University remains committed to fostering awareness about democratic rights and responsibilities, ensuring that students are well-informed and motivated to participate actively in the electoral process. The celebration of National Voters' Day served as a reminder that every vote counts in shaping the future of the nation.



Celebrated Lokmata Ahilyabai Holkar Tercentenary



Ranchi, January 29, 2025 – Ranchi University hosted a grand celebration to mark the tercentenary of Lokmata Ahilyabai Holkar, organized jointly by the Rashtra Sevika Samiti, Ranchi Mahanagar, and the Postgraduate History Department of Ranchi University at the Aryabhata Auditorium, Ranchi. The event was graced by the Honorable Governor, who was warmly welcomed and honored by Honorable Vice-Chancellor Dr. Ajit Kumar Sinha.

In his address, Dr. Ajit Kumar Sinha paid a heartfelt tribute to Lokmata Ahilyabai Holkar, recognizing her extraordinary leadership, wisdom, and contributions to Indian society. He highlighted her exemplary role in social reforms, governance, and philanthropy, emphasizing that her legacy continues to inspire generations.

The event was marked by cultural performances, speeches, and discussions focusing on Ahilyabai Holkar's life and achievements. The speakers elaborated on her significant contributions to the welfare of society, especially her efforts in promoting education, women's rights, and infrastructure development. Ahilyabai Holkar's reign in Indore was celebrated as a model of effective and compassionate leadership.

The celebration also included a series of interactive sessions to engage the audience and educate them about the historical importance of Ahilyabai Holkar's rule and her contribution to the cultural and social fabric of India.

The program concluded with a renewed commitment to preserving and promoting the values of social justice and leadership that Lokmata Ahilyabai Holkar embodied. Ranchi University, through this event, reaffirmed its role in honoring historical figures and promoting awareness about their lasting influence on contemporary society.

NIRF 2025 Ranking Portal filled by IQAC

Ranchi University has successfully submitted its National Institutional Ranking Framework (NIRF) report for the year 2025. The NIRF rankings, established by the Ministry of Education, Government of India, aim to evaluate and rank Indian higher education institutions based on key performance indicators such as teaching, learning, resources, research and professional practices, graduation outcomes, outreach, and inclusivity.

As part of its commitment to continuous improvement and academic excellence, Ranchi University has carefully compiled and submitted detailed information on its performance across various parameters. The submission reflects the university's dedication to transparency, quality education, and holistic development.

Republic Day Celebrated with Rejoice



Ranchi University celebrated the 76th Republic Day (26 January, 2025) with grandeur and patriotic fervor at the Administrative and Basic Science Campus in Morabadi. The event commenced with the Honorable Vice-Chancellor Dr. Ajit Kumar Sinha hoisting the national flag, followed by an impressive parade by the university's NCC cadets. The ceremony was attended by university officials, faculty members, staff, and students, marking a moment of unity and pride for the Ranchi University community.

Dr. Sinha, in his address, spoke passionately about the university's vision, highlighting its recent achievements, ongoing initiatives, and future plans. He emphasized the university's commitment to academic excellence and the continuous efforts being made to place Ranchi University among the top universities in India. He also acknowledged the remarkable legacy of education that the university has built over the years and expressed confidence that, through collective efforts, it will reach even greater heights.

The Vice-Chancellor encouraged students to uphold the values of democracy, integrity, and service to society, drawing inspiration from the ideals of the Republic. He also commended the NCC cadets for their discipline and dedication, which reflects the university's spirit of excellence and service to the nation.

The Republic Day celebration concluded with a sense of pride and renewed determination to contribute to the university's growth and the nation's progress. Ranchi University continues to foster an environment where students and faculty members work together toward achieving the university's goals and making a meaningful impact on society.