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AI Infrastructure in Uttar Pradesh Paving The Way For Trillion-Dollar Economy

By Elets News Network 06-January-2025

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India’s Artificial Intelligence (AI) market is witnessing exponential growth, soaring from \$3.72 billion in 2021 to a projected \$13.54 billion by 2028. This surge underscores the pivotal role AI will play in driving both digital transformation and economic progress in the coming years. In alignment with Hon’ble Prime Minister Shri Narendra Modi’s vision of positioning India at the forefront of AI innovation, Uttar Pradesh is embarking on an ambitious journey to become a hub for AI and Information Technology (IT). The state is focused on transforming key cities—Lucknow, Kanpur, Gautam Buddha Nagar (Noida), Varanasi, and Prayagraj (Allahabad) into leading centres of AI and IT excellence. These strategic developments are vital to Uttar Pradesh’s goal of becoming a \$1 trillion economy within the next five years, promising significant advancements across sectors such as manufacturing, healthcare, and education.

Key Cities Leading the AI Revolution

Lucknow is chosen to be developed as India’s first “AI City,” with a 40-acre site near the Lucknow airport and along the Lucknow-Kanpur highway earmarked for AI development. This AI hub will host a variety of tech-driven sectors, including AI start-ups, data centres, data analytics, AI-based training, and data forensics. Furthermore, the state has partnered with leading academic institutions such as the Indian Institute of Technology-Kanpur, the Indian Institute of Management-Lucknow, and APJ Abdul Kalam Technical University to create a knowledge-driven ecosystem that supports these advancements.

Training the Youth for Technological Integration

As mentioned earlier, AI is expected to contribute significantly to India’s economy by 2030, hence Uttar Pradesh’s AI adoption is gaining momentum in sectors such as manufacturing, ICT (Information and Communication Technology), retail, and fast-moving consumer goods (FMCG). The state government’s focus on IT & IT-enabled services (ITeS) as a core sector will play a crucial role in driving economic growth and fostering job creation.

The collaboration between Abdul Kalam Technical University (AKTU) and IBM is another example of the state’s commitment to equipping its workforce with modern skills, such as AI and cloud computing. Under a memorandum of understanding (MoU), AKTU students gain access to free online AI courses, which align with the industry’s evolving demands. This initiative is pivotal for integrating Industry 4.0 technologies into the state’s economy, preparing its youth for jobs in advanced technological fields.

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AI in Governance and Security

Uttar Pradesh is also leveraging AI to enhance governance and public safety. A major initiative is the deployment of the AI-enabled video analytics platform “Jarvis” across 70 prisons in the state. This platform analyses real-time video data from over 700 CCTV cameras to monitor inmate behaviour, detect suspicious activities, and prevent violence. Jarvis enables law enforcement to intervene swiftly in case of security threats, contributing to safer prison environments.

In addition to improving security, AI is being used to streamline the state’s welfare programs. An AI-based database of eligible beneficiaries allows the government to target citizens with appropriate schemes, reducing duplication and ensuring efficient delivery of services. This technology was instrumental in addressing the migrant crisis during the COVID-19 lockdown, helping the state manage over 35 lakh migrants and offering them job opportunities based on their skills.

Fostering Innovation Through Startups and Incubators

With the fourth-largest startup ecosystem in India, Uttar Pradesh is fostering innovation by integrating education with incubators and promoting entrepreneurship through the “One District, One Incubator” scheme. Currently, the state has over 60 operational incubators and approximately 10,000 recognised startups, of which approximately 50% are led by women entrepreneurs. These incubators provide a platform for emerging businesses, offering angel funding, mentorship, and infrastructure support.

Notably, Uttar Pradesh is home to eight of India’s 108 unicorns, including Paytm, Pine Labs, and Physics Wallah. The government’s proactive stance in attracting investments, especially in AI and IT sectors, is key to driving economic growth and job creation.

AI in Education

The Uttar Pradesh government is introducing AI in the education sector as well, with plans to deploy AI bots in secondary school examinations. These bots will help monitor students, assess their academic progress, and prevent fraud during exams. By incorporating AI into the education system, the state aims to elevate the quality of education, ensuring that students are well-prepared for future job markets.

Uttar Pradesh is at the forefront of India’s AI revolution, with strategic investments in AI infrastructure, partnerships with academic institutions, and a focus on job creation and governance improvements. As the state progresses towards its goal of becoming a trillion-dollar economy, AI will play an integral role in enhancing transparency, fostering innovation, and boosting economic growth. The state’s efforts to integrate AI into governance, security, education, and industry highlight its commitment to positioning itself as a global leader in technology.