

Lucknow Set to Become India’s First AI City in Ambitious UP Initiative

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The Uttar Pradesh government plans to transform Lucknow into the first AI city of India. The IndiaAI Mission, approved in March 2024, has earmarked Rs 10,732 crore for building computing infrastructure, including a plan to buy 10,000 graphics processing units and establish AI centers for multi-modal large language models. This enormous investment is 67% more than what was invested by previous national technology initiatives on infrastructure.

The most populous state in India, with a population of over 237 million people, stands to gain from this technological milestone. Uttar Pradesh’s IT sector has experienced rapid growth – the year-on-year growth is at 22% technology-based employment. Lucknow, being the capital city, is well positioned as an emerging hub for technology with plans to provide over 50,000 direct and indirect jobs related to AI in five years.

The infrastructure challenge is quite significant. Today, Uttar Pradesh boasts only 1.3 high-speed internet connections per 100 people, against a national average of 2.5. The proposed AI city project will, therefore, try to fill this gap by investing Rs 1,500 crore in digital infrastructure, developing high-speed fibre optic networks, and creating at least three world-class data centers in Lucknow.

This bold technological step by the Government of Uttar Pradesh will turn Lucknow into India’s first AI city, marking the historical confluence with the latest technology. Thus, it represents the state’s ambition to set itself firmly at the forefront of technological advance by utilizing the national framework of the IndiaAI Mission.

The proposed transformation is anchored in a comprehensive strategy that goes beyond mere technological implementation. ET AI Vision Conclave 2024 held on 13th December, 2024 has focused on critical pillars such as governance modernization, startup innovation, workforce development, and policy frameworks. These elements suggest a holistic approach toward creating a vibrant AI ecosystem that could redefine Lucknow’s technological landscape.

However, the path towards becoming an AI hub is riddled with numerous huge challenges. The city will have to tackle a severe infrastructural deficit in terms of creating a world-class technological environment. Huge investments would be required for high-speed internet, robust data centers, and other advanced computing facilities. What is more, Lucknow would have to vie with tech centres like Bangalore and Hyderabad, who are already well-established entities and have a mature technology ecosystem.

Talent development is an important focus area. Currently, the state graduates around 3,500 engineers in computer science and related areas, but less than 12% are considered AI-ready. The government has a plan to start 15 specialized AI and machine learning programs in association with the top technical institutions, aiming to train 10,000 AI professionals by 2026. It is likely that this will provide hands-on experience and internship opportunities through associations with companies like NVIDIA and other tech giants.

The economic potential is promising. It is projected that the global AI market will reach \$1.8 trillion by 2030, and India would be expected to contribute around 10-12% of this market. Uttar Pradesh can look to capture at least 5% of the national share, which amounts to a potential economic opportunity of approximately \$9-10 billion in the AI sector.

Financial investments are showing good momentum. The first phase of the AI city project has already attracted preliminary commitments of Rs 2,500 crore from private technology companies and venture capital firms. Funding for local startups in the AI and deep-tech space has increased by a massive 40% over the past 18 months, evidencing growing investor confidence.

The policy framework is equally comprehensive. The state government has proposed a dedicated AI policy that includes, 25% subsidies for AI startups, tax breaks for companies investing in AI infrastructure, establishment of a Rs 500 crore AI innovation fund, mandatory AI skill development programs in engineering and polytechnic colleges.

Challenges still exist, though. The current technological skills gap is still huge. Only 0.4% of the state’s workforce is currently considered AI-proficient, as against the national average of 1.2%. The digital divide is stark, with urban areas like Lucknow having 4.7 times more technological infrastructure than rural regions of Uttar Pradesh.

The global context offers a perspective. While nations like the United States and China lead in AI investments by spending over \$40 billion and \$30 billion, respectively, India is swiftly catching up as a substantial player, with projected investment going up to \$11-12 billion by 2025. Lucknow’s AI city project positions Uttar Pradesh right at the forefront of that national technological transformation.

The vision expands beyond just the technological development alone. It creates a larger ecosystem integrating education, industries, and the government system. The proposed investment from the estimated five years would be worth Rs 5,000 crore. Targeting at least 100+ companies in AI and deep technologies, Lucknow is shaping not only its AI but also imagining the technological definition of its own self.

As stakeholders converge on the AI Vision Conclave 2024, the numbers say it all – potential and challenge, unprecedented opportunity all at once. Lucknow is at the cusp of a technological revolution, with some quantitative evidence suggesting that this AI city vision is anything but an ambitious dream. It is a calculated data-driven strategy for transformation.