# The NSDC Weekly Pulse



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# How AI is Transforming Roles and Inspiring Innovation

Sundar Pichai, the CEO of Google, recently emphasised the profound impact of AI on software development, revealing that AI now generates 25% of Google's code. This shift signifies a major transformation in the way engineers approach their work, as AI becomes an integral part of the development process. Here's a look at how AI is reshaping engineering roles:

# 1. Engineers Shift to Problem Solving

With AI managing basic coding, engineers are increasingly focused on problem-solving and system design.

#### 2. Collaboration with AI

Engineers are learning to work alongside AI tools, using them as partners to enhance efficiency and speed.

# Building a Future-Ready Workforce in Uttar Pradesh with AI

With a youthful population and a wealth of talent, Uttar Pradesh has a unique opportunity to drive growth through Artificial Intelligence (AI). By integrating AI learning and infrastructure, the state could transform its job market and economy.

#### 1. The AI Advantage

Al is transforming industries worldwide, from healthcare to finance. By investing in Al education for its youth, Uttar Pradesh can equip them with skills that are in demand globally.

#### 2. Building Data Infrastructure

Reliable data systems allow smoother AI implementation in sectors like agriculture and manufacturing, offering insights that can enhance productivity and innovation.

#### 3. Employment Opportunities

Al adoption can generate jobs that didn't exist a few years ago, from Al analysts to automation specialists. Upskilling programmes for these roles can bridge the skill gap and prepare youth for high-paying jobs.

Uttar Pradesh's efforts to harness the AI wave could unlock its demographic dividend, creating a workforce ready to lead in a tech-driven world.

# In-Demand Courses Shaping India's Digital Future

Preparing for a digital-first world requires the right skills. These four courses can lay the groundwork for India's progress.

#### 1. Coding and Software Development

As the foundation of the digital world, coding skills are essential for building and advancing

### 3. Upskilling in AI and Machine Learning

Engineers are now expected to have skills in AI and machine learning. Familiarity with these technologies allows them to guide AI's development and application effectively.

# 4. Future-Ready Engineers

As AI adoption grows, the skills required in engineering are evolving. Engineers must stay updated on AI advancements to remain relevant, emphasising lifelong learning in a tech-driven environment.

Pichai's insights show that while AI is automating some tasks, it's also creating new, value-driven roles for engineers. Embracing these changes can help engineers thrive in an era where technology continually redefines their profession.



# technology. Proficiency in widely used languages like Python, Java, and C++ empowers individuals to create innovative solutions and meet the demands of a tech-driven economy.

# 2. Cloud Computing

With more businesses migrating to the cloud, skills in cloud computing enable professionals to create secure, scalable and efficient digital solutions, a critical component of today's tech landscape.

## 3. AI and Machine Learning

From personalisation to automation, AI and machine learning drive breakthrough technologies. Proficiency in these fields prepares professionals to lead advancements in intelligent systems.

# 4. Digital Marketing

With the shift to online platforms, digital marketing expertise is crucial for reaching and engaging audiences. It empowers businesses to grow their digital presence and drive meaningful engagement.

Completing these courses can equip individuals with the expertise needed to excel in a digital-first economy, helping both to advance their careers and to support India's journey towards a technology-driven future.



