

# Revolutionary Steps Towards ‘Viksit Bharat’ Through the Use of Artificial Intelligence

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### ABSTRACT:

AI is a system with capabilities that surpass human intelligence and a technology that imitates human cognitive abilities. In today’s era, it is being used in almost every sector such as business, commerce, healthcare, education, transportation, and agriculture. India, in its pursuit of the dream of becoming a “Developed Nation”, has placed strong emphasis on technology-driven growth. In this context, the use of AI contributes to the country’s economic progress, industrialization, innovation, and sustainable development. At the same time, challenges need to be addressed through proper strategies. The appropriate use of Artificial Intelligence plays a decisive role in making India a revolutionary nation on the path toward becoming a developed country.

### KEYWORDS:

Viksit Bharat, Artificial Intelligence, Economy, Commerce, Entrepreneurship, Startups, Agriculture Challenges, Solutions.

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### 1) Introduction:

After gaining independence, India struggled hard to establish its own identity among the nations of the world. It had to face exploitation due to dependency, suffer economic setbacks, and it took nearly 80 years to transform into a developing nation. Today, India has achieved progress in all sectors and has emerged as the third-largest economy in the world. By the year 2047, India aims to shed the tag of a developing nation and become a “Developed Nation.” Carrying this vision of “Viksit Bharat,” the country is striving to emerge as a global economic leader by making use of modern science and technology. As part of this journey, India is taking confident strides towards realizing this dream through the application of Artificial Intelligence (AI) technology.

### 2) Artificial Intelligence:

Undoubtedly, one of the most important tools for realizing the

dream of “Viksit Bharat – 2047” is Artificial Intelligence (AI).

Researchers Demis Hassabis and John Bumper, working at Google DeepMind in London, developed an AI technology system that is believed to have the capability of predicting the structure of more than 200 million proteins. For this groundbreaking research, both of them were also awarded the Nobel Prize.

### **3) Meaning:**

Artificial Intelligence (AI) refers to an artificial system that has the ability to perform any task beyond human physical capabilities with high speed, efficiency, and creativity. It has the capacity to work better than humans in all fields. This system is not just technically capable but also possesses the power to handle complex social, emotional, and ethical situations.

### **4) Viksit Bharat 2047: Fields and Role of AI Technology**

To realize the dream of “Viksit Bharat 2047,” India is making extensive use of Artificial Intelligence (AI) technology in multiple sectors. Since it has the potential to bring about revolutionary changes across different domains, its applications are vast. AI offers significant benefits in economic, industrial, business, social, technological, scientific, and medical fields.

#### **AI Technology in Economy and Commerce:**

In Financial Management, AI can analyze stock markets, economic trends, and the global economy to provide guidance on better investment decisions. In Supply Chain Optimization, It can enhance efficiency in production, distribution, and logistics, thereby reducing costs. Customer Services– Chatbots or virtual assistants can instantly identify customer needs, provide quick services, and companies can leverage AI’s capabilities to design new products and services. This helps in overcoming financial constraints and accelerates economic growth.

The impact of Artificial Intelligence in the fields of commerce and economy is remarkable. AI-based software plays a crucial role in digital payment systems, risk management in banking, market analysis, e-commerce, and in predicting stock market movements in advance.

#### **AI Technology in Entrepreneurship and Startups Sector:**

On the occasion of completing 75 years of India’s independence, the Honorable Prime Minister of the country, Shri Narendra Modi, set the goal of “Amrit Kaal.” This is aimed at taking India and Indians to new

heights of prosperity in the coming 25 years.

Today, entrepreneurship in India has become an important pillar of Atmanirbhar Bharat (Self-Reliant India). It has laid strong roots in the history of India's ecosystem. As a result, it is moving towards building a bright future. By using AI, India has created an online platform for entrepreneurs and startups called the "Startup India Portal." To reduce knowledge inequality, AI has been effectively utilized by providing entrepreneurs with necessary information, market research reports, and free software applications.

With regard to startups, AI is helping in improving customer service, understanding customer behavior and market trends through chatbots, and supporting more accurate decision-making in developing strategies. It has enhanced digital marketing, fraud detection, new product design, identification of customer needs, rapid prototype development, competitiveness, and the capacity to grow and stand at the international level.

#### **AI Technology in Education and Media Sector:**

An AI-based education system can identify a student's learning style, interests, and abilities, design suitable content accordingly, and even assess their emotional state. AI-driven gamification technology makes learning more engaging and helps teachers simplify complex topics.

When computers, Google, and the internet arrived, there were many concerns, including that they would take away the jobs of journalists. By using AI effectively, news gathering can be accelerated, newsrooms can be transformed, and AI has the potential to reduce fake news.

#### **AI Technology in Urban Planning and E-Governance:**

Urban planning (Smart City) is the process of designing and developing open land, urban areas, and the built environment. In other words, it refers to urban areas created using digital technologies to improve the standard of living of citizens. In the modern era, urban planning faces intense challenges, while the availability of information technology and artificial intelligence is increasing.

AI technology helps in streamlining traffic in cities, water management, systematic waste management (garbage disposal) systems, greater recycling of materials, optimizing energy use and distribution through AI-powered smart grids, and preventing energy wastage, thereby shaping smart cities. In a country like India with a large population, en-

suring the safety of citizens and urban dwellers is crucial; AI surveillance systems can easily identify suspicious activities and provide security.

Additionally, AI systems manage digitization of records, control of corruption, government data analysis, and cybercrimes.

#### **AI Technology in the Agriculture Sector:**

Agriculture plays a significant role in India's economic and social system. Therefore, AI technology is being used to improve and analyze crop management and agricultural-related activities.

With regard to agriculture, AI technology assists farmers in predicting and improving crop yields, identifying pest infestations, detecting soil nutrient levels, obtaining weather forecasts, enhancing sustainable water management in crops, and improving plant health. The use of robots is an excellent method for carrying out agricultural tasks with greater efficiency.

Moreover, if data analytics methods are properly applied in agriculture, it not only increases production but also provides opportunities for economic growth. Along with this, we can witness a new era in agriculture.

#### **AI Technology in Defense-Security and Medical Sector:**

In relation to defense and security, AI technology can identify, prevent, and take action against cyberattacks, predict potential attacks, and assist in formulating war strategies.

In the medical sector, AI plays a significant role in accurately diagnosing diseases, providing personalized treatment, stimulating biochemical processes to research new drugs, and efficiently performing robotic surgeries.

#### **5) Challenges of AI Technology:**

**Control:** If AI interprets its goals differently from humans, it can lead to dangerous outcomes. For example, if it misinterprets the goal of environmental protection, it could potentially wipe out entire ecosystems.

**Job Loss:** If AI automation increases, job losses may rise. This could lead to economic inequality and social instability.

**Centralization:** If AI power is centralized in the hands of a few countries, the possibility of misuse increases. This also raises the risk of cyberattacks and hacking.

#### **6) Solutions:**

There is a possibility of many problems arising from AI technolo-

gy. Therefore, while using AI, the government should create ethical and legal regulatory guidelines and ensure the privacy of personal data so that it does not fall into the hands of others. Even if job losses occur, measures should be taken to create new employment opportunities. Workers should be provided with job skill training and education. Secure systems must be established to prevent cyber fraud. Data infection should be controlled to prevent misuse and leakage of personal information. Accountability must be ensured for wrong decisions. Policies should be formulated to provide equal opportunities for all. Overall, the focus should be on the welfare of humanity rather than individual gain.

### 7) Conclusion:

Any research and technology is like fire. With fire, we can cook food or burn down a house. How it is used—what it is used for—determines whether the technology is good or bad.

Today, India is one of the fastest-growing economies in the world. This progress has been achieved largely due to government support and the collective efforts of entrepreneurs. With Artificial Intelligence, we have entered the Amrit Kaal, which is just the beginning of India's golden era. For India to shine globally, it is timely that we integrate the use of all technologies effectively. Only then can the nation reach unprecedented heights and sustainably build the India of our dreams.

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The Authors have no conflict of interest to declare that they are relevant to the content of this article.

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