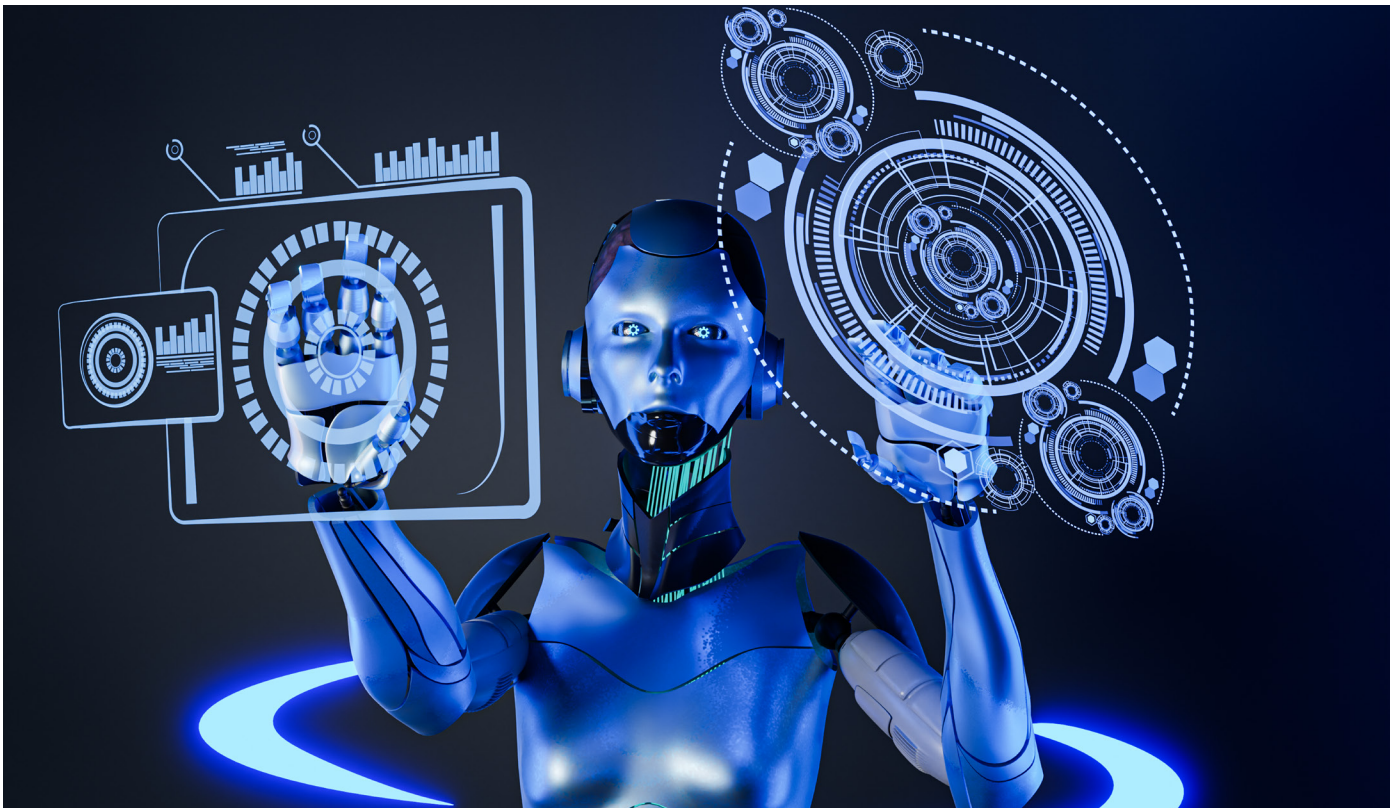


THE TECH TALK

Artificial Intelligence of Things (AIoT): Powering the Next Wave of Intelligence

Before we explore the future of AIoT, let's recap the momentum behind it. The fusion of Artificial Intelligence and the Internet of Things is redefining how we act on the **328 million terabytes of data** generated daily. Far from a trend, AIoT is a transformative force—poised to grow at a **31.7% CAGR through 2030**, reshaping industries with intelligence at scale.



- ✓ **Edge Computing Becomes the Backbone:** With the edge computing market projected to **hit \$15.7 billion in 2025**, processing data at the device level is now essential, reducing latency, boosting speed, and enhancing security. Real-world use of autonomous vehicles involves making split-second decisions without relying on the cloud.
- ✓ **Sustainability as a Core Driver:** AIoT is enabling smarter energy use, waste reduction, and climate tech innovation—from smart grids to carbon tracking. For example, smart factories are using AIoT to cut emissions and optimize power usage in real time. These technologies are helping companies align with ESG goals and regulatory expectations while reducing operational costs and environmental impact.
- ✓ **Enterprise AIoT Adoption Surges:** The enterprise AIoT market is projected to reach **\$301 billion in 2024**, with a projected **15% CAGR from 2025 to 2030**, which was valued at **USD 171.4 billion in 2024**. It is projected to grow rapidly, driven by demand for intelligent automation, energy efficiency, and real-time analytics. Industries like logistics, agriculture, and retail are rapidly adopting AI-powered automation, replacing traditional methods with smarter, more efficient systems. AIoT is expected to **boost industrial productivity by over 20% in 2025**, thanks to innovations like predictive maintenance and automated inventory management.
- ✓ **Perception Technologies Are Evolving:** AIoT devices now use AI-ISP, radar, and acoustic sensing to operate in complex environments. With **19+ billion IoT devices** generating **79.4 zettabytes of data**, AIoT—powered by 5G/6G and quantum computing—is enabling predictive insights and autonomy. Think: smart traffic systems adjusting in real time to congestion and weather.
- ✓ **Consumer AIoT Goes Mainstream:** Connected devices are set to reach **29 billion by 2030**, with **350 million smart home units** expected by 2025. Voice assistants are most used by **25–34-year-olds (65%)**, making AIoT a daily essential in homes, from lighting to security.

AIoT is no longer emerging—it's accelerating. Now is the time to lead with intelligent, secure, and sustainable solutions that scale with purpose.

Let's dive in : Can AIoT Devices Truly Speak the Same Language?

As AIoT adoption accelerates, the promise of a seamlessly connected ecosystem is being tested by a critical roadblock: **fragmented communication standards**. Manufacturer is racing to build exclusive services, often at the expense of **interoperability**. The result? A fractured environment where devices struggle to collaborate & innovation is stifled.

- ✔ **Intelligence at the Edge:** AI is no longer confined to the cloud. It's being embedded directly into IoT systems, transforming them into autonomous decision-makers. Combined with edge computing, this shift enables real-time data processing, reduces latency, and significantly boosts operational efficiency.
- ✔ **Vertical-Specific Solutions & Sustainability:** AIoT is moving beyond generic applications. Industries like healthcare, agriculture, and smart cities are adopting **customized solutions** that address their unique challenges. At the same time, there's a growing emphasis on **sustainability and ESG goals**, making AIoT a key enabler of responsible innovation.



- ✔ **The Interoperability Challenge - Breaking the Silos:** Despite rapid growth, AIoT still suffers from fragmented standards. Devices from different suppliers often struggle to communicate due to proprietary protocols and a lack of unified frameworks. While short-term workarounds exist, long-term success demands: **Global standards, Open APIs, & Hybrid connectivity solutions**. The industry must rally around interoperability to unlock true scalability and cross-platform collaboration.
- ✔ **Efficient Data Processing - From Raw Data to Real-Time Insight:** The volume of data generated by IoT is staggering. To extract value, organizations are turning to AI and machine learning for **real-time analytics**, enabling smarter, faster decision-making across the board.
- ✔ **Security & Adoption Confidence - Building Trust by Design:** Security is no longer an afterthought. Enterprises are embedding protection into the core of their AIoT systems—shifting from fear-based narratives to proactive, transparent, and user-centric security models. The result? Greater trust and faster adoption.

Energy Efficiency - Powering the Future Responsibly: AIoT devices are power-hungry, and battery longevity remains a critical hurdle. The solution lies in: Energy-efficient chip designs, Energy-harvesting technologies & Smarter power management, etc. These innovations are essential for sustainable, long-term deployment.

- ✔ **AIoT Chip Design - Engineering for Intelligence & Efficiency:** At the heart of every smart device is a smarter chip. Research led by Professor Ye Le at Peking University is pioneering next-gen AIoT chip architectures that dramatically reduce power consumption while enhancing processing capabilities. These breakthroughs are setting new benchmarks for energy-aware design.
- ✔ **Call for Action**

With the AIoT market projected to grow **CAGR of 31.7% from 2025 to 2030**, the opportunity is massive—but so are the challenges. Tackling fragmented standards, rising energy demands, and security risks will require intelligent, secure, and sustainable solutions. The next wave of AIoT success will be built on interoperability, innovation, and collaboration.

Now is the time to lead—invest in scalable AIoT strategies that deliver impact, resilience, and sustainability.

Our Vision:

“Act as a catalyst to make housing affordable in India by enabling risk optimization through data technology leverage”



PROVIDED GUARANTEES IN OVER 400 LOCATIONS
to customers across India



HELPED OVER 1,50,000 FAMILIES
realise their dream of owning a home

Our Mission:

- Partner with the housing finance industry to drive financial inclusion goals and promote responsible lending
- Maximise shareholder value while maintaining prudent risk discipline



For more information scan the QR
or visit us at: www.imgc.com

Connect with us:
Send “MG” at +91-73033 88455
on  WhatsApp