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Industries and Careers

2030 TECHNOLOGIES IN DEMAND - ASIA

ARTIFICIAL INTELLIGENCE

AI will continue to improve its self-learning capabilities, that is, to learn the learning process itself, and be able to function as well as humans with little data or experience. Asian countries placed AI first in their ranking; however, Asia G1 (China, Japan, Korea, Singapore, and Taiwan) will dominate AI R&D, and Asia G2 (Malaysia, Thailand, Indonesia, the Philippines, and India) do not believe that they have the capability to commercialize AI by 2030.

6G MOBILE NETWORK AND POSSIBILITIES

By 2030, our society will be data driven. This will be enabled by near-instant and unlimited wireless connectivity. The 6G network will offer high-speed Internet access through wireless and mobile devices up to at least 11 Gb/s, surpassing the 5G network. For example, South Korea and China have the highest investment priorities.

BLOCKCHAIN TECHNOLOGY

Blockchain is still limited by its ability to scale. Quantum computing will enhance the scalability of blockchain deployment in industry. The main blockchain application markets, including finance, logistics, retailing, and e-commerce sectors, will have grown rapidly by 2030. Blockchain technology is more popular in G2 than in G1, perhaps because developing countries will have a higher demand for transaction transparency in the future.

AUTONOMOUS VEHICLES

Autonomous vehicles: Reaching autonomous driving levels 4-5 by 2030, the vehicle will combine 360-degree vision with a decision-making intelligent algorithm that can make the best driving behavior decisions under various driving conditions. Robo-taxis may be the main method of transportation. Although the development of autonomous vehicles is still dominated by G1 countries, G2 countries agree with the importance of self-driving, but they will not give it a high investment priority.

GET READY FOR FUTURE

INDUSTRIAL ROBOTS

In the future, consumer demand will be customized and personalized. Industrial robots will integrate machine vision, improve their capabilities, and be suitable for the more efficient manufacturing of products made in small quantities and have a short life cycle.

However, G2 countries have a lower demand for industrial robots because they face fewer problems with a lack of manpower.

NEW ENERGY VEHICLES

NEVs refer to those vehicles with newer-type power systems, completely or mainly driven by new energy sources. NEVs are expected to play a key role in urban areas to provide mobility-as-a-service by 2030. Japan and China are currently the world's top two NEV markets. In fact, 60% of hybrid vehicles are made by Japanese companies.

Survey results show that the penetration rate of NEVs will reach 20–30% in Asia by 2030.

RENEWABLE AND BIODEGRADABLE PLASTICS MATERIALS

A consensus was reached, at the recent summit of the G7 countries, that, by 2030, plastic materials will be made from 100% recycled or renewable products. G2 countries have given a higher score to the idea of investing in renewable and biodegradable plastic materials than G1 because G2 countries have more abundant biomass resources to fulfill the need for the development of bioplastics

SOLID-STATE BATTERIES

Solid-state lithium-ion batteries have attracted a great deal attention due to their high safety rating and increased energy density. These batteries may have the opportunity to maximize the driving range of electric vehicles and improve the safety of mobile devices. It is expected that solid-state batteries will have entered the early stage of commercialization by 2030.

Stay Innovative

focus on technology and education which matter most in coming years, learn skills to upgrade the version of you