APPLICATION OF ARTIFICIAL INTELLIGENCE IN AUTOMATION

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The dramatically accelerating pace of development and adoption of new technologies in recent decades is likely to continue. Automation is not new. From the beginning, humans have constantly developed new and superior tools and technologies to produce greater economic output with less human effort. Some of these advances have been transformational, with broad impact across many sectors of the economy. Think of inventions like the steam engine, electricity, and information technologies. Other gains have been more specialized - for example, mechanized weaving looms, industrial robots, or automated teller machines.

But now the IT era is transforming into an artificial intelligence (AI) era pervaded by more powerful digital technologies such as artificial intelligence. Which raises the question: What will the next phase of the automation look like? Will it be different?

Automation and AI, in this vein, are increasingly looking like sources of the productivity gains badly needed to secure higher-quality economic growth in the country. As such, automation could well lift the national economy in the coming years and increase prosperity at a time of uncertainty [2].

Regardless of its scope, automation fundamentally exists to substitute work activities undertaken by human labor with work done by machines, with the aim of increasing quality and quantity of output at a reduced unit cost. This ability to increase workers' productive capacity has historically enabled humans to transition out of physically difficult, mundane, or menial labor, and in so doing, raised the standard of living.

Artificial intelligence now includes capabilities in image recognition, problem solving and logical reasoning that sometimes exceed those of humans. Artificial intelligence, particularly in combination with robotics, also has the potential to transform production processes and business, especially in manufacturing [3].

The first national strategy on AI was launched by Canada in March 2017, followed soon after by technology leaders Japan and China. In Europe, the European Commission put forward a communication on AI, initiating the development of independent strategies by Member States. Asia has in many respects led the way in AI strategy, with Japan being the second country to

release a national initiative on AI. Released in March 2017, Japan's AI Technology Strategy (Japanese Strategic Council for AI Technology, 2017) provides an industrialisation roadmap, including priority areas in health and mobility, important with Japan's ageing population in mind. Japan envisions a three-stage development plan for AI, culminating in a completely connected AI ecosystem, working across all societal domains [1].

In conclusion, in our country the use of artificial intelligence with automation in the development of industry will be improved in the future. But for this we need to train a narrow field of personnel who can work with new technologies such as artificial intelligence, in general, the Internet of Things, BigData, Block-chain, Cloud Computing and others.

Literature

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РАЗРАБОТКА УНИВЕРСАЛЬНОЙ УСТАНОВКИ ДЛЯ КОМПЛЕКСНОГО ИЗМЕРЕНИЯ ПАРАМЕТРОВ ПОЛУПРОВОДНИКОВЫХ МАТЕРИАЛОВ

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Разработана универсальная установка для комплексного измерения параметров полупроводниковых материалов на основе четырех зондового метода и эффекта Холла [1-5]. Преимущество четырехзондового метода состоит в том, что не требуется создание омических контактов к образцу, возможно измерение объемных образцов самой разнообразной формы и размеров, а также тонких слоев. Условием его применения является наличие плоской поверхности, линейные размеры которой превосходят линейные размеры системы зондов. Разработанная конструкция универсальной зондовой установки для измерения параметров полупроводников на основе метода эффекта Холла состоит из электромагнита, держателя с образцом, источника тока, переключателей