

M.A. Bytyk

*Research supervisor: V.A. Kuzminykh, Candidate of Technical Sciences, Associate Professor
Language supervisor: A.V. Kondrashova
National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»*

AUTOMATED SYSTEM FOR MODELING AND ANALYSIS OF ADMINISTRATIVE FUNCTIONS OF AN ORGANIZATION

The workflow of an enterprise or organization is known to be formalized in some way. Its proper organization requires an extensive analysis of the management activity of the enterprise. Improved document flow leads to a reduction in the number of instances through which the document passes through approval and signing, to the direct accuracy of document movement, elimination of repeated instances and reversals.

Document analysis involves an in-depth study of the organizational features of management: regulations on organization, work regulations, staffing, job descriptions of employees and managers. This will determine the type of paperwork, analyze the distribution of responsibilities between executives, clearly identify their rights and competencies, examine the relationship of different levels of management.

The software application will provide an opportunity to automatically simulate a visualized flow chart, which in turn will facilitate the analysis of business processes at the enterprise. The web platform will be the basis for the enterprise flow document, a repository of documents included in the workflow. To a large extent, the structure of the document flows corresponds to the functionally-integral structure of the enterprise, which automates the process of document flow. With a visualized flow chart, it is possible to analyze and make changes to work in an organization and to re-engineer the business processes of the enterprise or the organization as a whole.

The main advantages of the platform are:

- assistance from the system in the analysis of workflow;
- automation of simulation of the visualized document flow diagram;
- automation of reporting.

The system should be easy to use and intuitive for users of different levels of training. The system provides the ability to generate internal documentation and reports on the current status of the workflow system, which provides additional convenience of use of the system.

This system provides managers with up-to-date information on the current status of workflow. The software application should reduce the complexity of work in the system of workflow, provide the ability to search documents, archive documents, and provide information about the sequence of documents passing through instances of organizations.

References:

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O. Chaus

*Research and language supervisor: K. Kugai, senior teacher
Kyiv National University of Technologies and Design*

ARTIFICIAL INTELLIGENCE AND ROBOTICS

Artificial intelligence (AI) is arguably the most exciting field in robotics. It's certainly the most controversial. Everybody agrees that a robot can work in an assembly line, but there's no consensus on whether a robot can ever be intelligent.

The impact of artificial intelligence and robotics on employment opportunities has always been a topic of much speculation. When it comes to organizing and manipulating data, processing complex mathematical problems, and executing tasks in the blink of an eye, AI and robotics are the most preferred choice. As a result, AI has penetrated almost every industry, from construction, transport, and manufacturing to business intelligence, education, and healthcare. It is, therefore, not surprising that many Silicon Valley figures, including Facebook CEO Mark Zuckerberg, believe that not only can artificial intelligence support and enhance existing jobs, but it can also create new roles.

A report generated by Gartner suggests that by 2020, AI would generate an estimated 2.3 million jobs. This figure was calculated by taking into account the 1.8 million jobs made simpler by automation. However, like any other technology, when it comes to domain skills, AI and robotics also require dedicated training courses. This has spurred the need for artificial intelligence courses, thus preparing professionals for a new wave of change brought about by innovations in robotics and artificial intelligence.

The AI and robotics sector never fails to impress people with innovations. Tasks that used to be considered extremely complex until previously have now been rendered simple, thus giving professionals a broader space to focus on other tasks. In addition to this, the proliferation of AI techniques has yet another benefit. As the number of AI and robotics devices increase, so will the need for job roles to support and maintain their functioning.

The impact of AI and robotics on employment goes far deeper than just job creation. AI, and subsequently, robotics, are niche technologies that demand an extensive understanding of every associated parameter. Consequently, there is a massive demand for performing microtasks like data analyses and virtual imaging, which require a significant level of expertise. This means that there is an ever-growing market for professionals who can perform these tasks, as evident by the rapid popularity of artificial intelligence courses.

According to industry estimates, the year 2017 faced significant labour shortages in the technology sector. So much so that for 500,00 open developer positions in the U.S alone, there were less than 50,000 computer graduates to satisfy the demand. Judging by these trends, in the current era of business improvement that is dominated by AI and robotics, there would be even more demand for skilled professionals.

Just as physical robotic design is a handy tool for understanding animal and human anatomy, AI research is useful for understanding how natural intelligence works. For some roboticists, this insight is the ultimate goal of designing robots. Others envision a world where we live side by side with intelligent machines and use a variety of lesser robots for manual labour, health care and communication. A number of robotics experts predict that robotic evolution will ultimately turn us into cyborgs – humans integrated with machines. Conceivably, people in the future could load their minds into a sturdy robot and live for thousands of years!

In any case, robots will certainly play a larger role in our daily lives in the future. Hence, this is as good a time as any to invest in artificial intelligence and robotic courses to fill in the ever-increasing demand for skilled professionals.

V.Y.Dieiev

Research supervisor: F.D. Shylo, Candidate of Technical Sciences, Associate Professor

Language supervisor: I.V. Shpak

Dnipro National University of Railway Transport named after Academician V. Lazarian

HOW TO THINK LIKE A PROGRAMMER