



Syllabus of Module

8. Robotic Process Automation

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Module Annotation

Automation and the associated robotics are usually connected to the so-called third industrial revolution. Although we are currently dealing with issues related to the fourth industrial revolution, this does not mean that this topic has already peaked. On the contrary. Thanks to rapidly continuing digitisation, it is gaining strength and is one of the pillars of Industry 4.0 technology.

Automation and robotics permeate many branches of human activity. Although its centre of gravity lies in industrial production, it is becoming more and more widespread in offices where software robots take over routine and repetitive activities. Combined with elements of artificial intelligence, they then become powerful tools that make work with data cheaper, more efficient and better.

Robotic process automation (RPA), which is dedicated to this module, represents one part of a wide range of automation solutions, but it is very important. Unlike industrial automation, which is based on machinery, RPA is built on software. Software robots can mimic the actions of people who work on computers and take on demanding and repetitive actions.

The role of RPA is so crucial nowadays that it can be said without exaggeration that a company or a company that does not use these tools risks losing competitiveness, regardless of how good its current position is.

Module Objective

- To introduce the definition of Robotic Process Automation (RPA) to accurately understand what is RPA and what is not.
- Explain what the real value of RPA in the company is: RPA helps to increase the efficiency and quality of people's work (and also to make it more pleasant), but its real value will show at the moment when it is applied to corporate processes on a large scale.
- Demonstrate the role of RPA in traditional IT models and BPM (Business Process Management).
- Introduce RPA as a breakthrough digital technology that is now growing exponentially. (We will mention the theory of Peter Diamandis' digital technology growth cycle – 6 D.)
- Define the clear advantages of RPA and support the claims with concrete examples.
- To become acquainted with the most famous types of RPA platforms on the market and with interesting case studies that demonstrate their real application in various fields (retail, healthcare, finance and accounting, e-commerce, IT management).
- Finally, we will discuss issues related to the impact of RPA implementation on employees, the motivation of people to use RPA tools and the integration of process robots into the team.

Literature

1. DIAMANDIS, Peter H., KOTLER, Steven. The Future is Faster Than You Think: Simon & Schuster (2020). ISBN 1982109661
2. LACITY, Mary C. Lacity, WILLCOCKS, Leslie P Robotics Process Automation and Risk Mitigation: The Definitive Guide: SB Publishing (2017). ISBN 978-0995682030
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5. LACITY, Mary C. Lacity, WILLCOCKS, Leslie P. Service Automation, Robots, and the Future of Work: SB Publishing (2016). ISBN 978-0956414564
6. Tauli, Tom. The Robotic Process Automation Handbook: A Guide to Implementing RPA Systems: Apress (2020). ISBN 978-1484257289.