

Future Trends in SEPM

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Introduction

Why Robotic Process Automation (RPA) Will Revolutionize Software Engineering Project Management

Robotic Process Automation (RPA) is an innovation that uses AI and machine learning to take over repetitive tasks from humans. It decreases the necessity for human operators in test planning and stakeholder management tasks and can be implemented in chatbots or other types of automation (Van der Aalst et al., 2018).



Challenges in SEMP – Solution for SEMP & Benefits of RPA

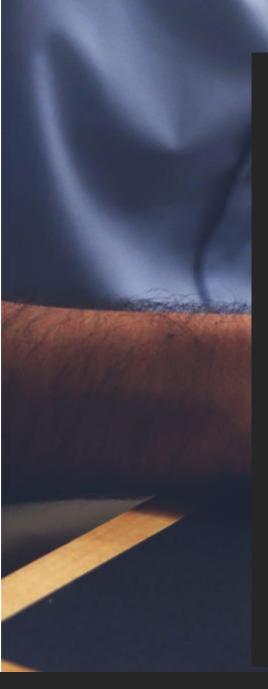
- The challenges in software engineering project management include time-consuming manual tasks, repetitive administrative burdens on developers and project managers, and human error affecting efficiency and quality (Tabassi et al. 2019).
- The introduction of Robotic Process Automation (RPA) can streamline repetitive tasks, free up human resources for higher-value activities, and enhance project execution accuracy and efficiency (Vijai & Mariyappan, 2023).
- According to Wewerka and Reichert (2020), RPA benefits include faster processes, shorter case durations, increased availability, enhanced compliance, and improved quality. However, Khatib et al. (2023), citing Kedziora et al. (2021), argue that while RPA lacks backend integration capacity, it temporarily bridges the gap between manual operations and automated processes in legacy IT systems.



Conclusion

Robotic Process Automation (RPA) is crucial for improving the efficiency of software engineering project management. Its integration promotes Intelligent Automation, streamlining human efforts and enhancing speed, productivity, and quality, as Ganeshayya Shidaganti et al. (2023) highlighted. RPA tools notably improve processes by enhancing recognition, data extraction, forecasting, classification, and optimisation.





References:

C. Vijai & M. S. R. Mariyappan (2023) Robotic Process Automation (RPA) in Human Resource Functions. Advances in Management, 16(3), pp.30–37. Available from: https://doi.org/10.25303/1603aim030037.

Ganeshayya Shidaganti, Karthik, K.N., None Anvith & Kantikar, N.A. (2023) Integration of RPA and AI in Industry 4.0. Smart innovation, systems and technologies, pp.267–288. Available from: https://doi.org/10.1007/978-981-19-8296-5 11.

Khatib, M.E., Almarri, A., Almemari, A. & Alqassimi, A. (2023) How Does Robotics Process Automation (RPA) Affect Project Management Practices. Advances in Internet of Things, [online] 13(2), pp.13–30. Available from: https://doi.org/10.4236/ait.2023.132002.

Kedziora, D., Leivonen, A., Piotrowicz, W. & Öörni, A., (2021). Robotic process automation (RPA) implementation drivers: Evidence of selected Nordic companies. Issues in Information Systems. Available from: https://doi.org/10.48009/2 iis 2021 21-40.

Tabassi, A.A., Bryde, D.J., Kamal, E.M. & Dowson, J. (2019) (PDF) Challenges For Project Management In The 21st Century. pp. 631–641. Available from: https://doi.org/10.15405/EPMS.2019.12.63.

Van Der Aalst, W.M.P., Bichler, M. & Heinzl, A. (2018) Robotic Process Automation. Business & Information Systems Engineering, [online] 60(4), pp.269–272. Available from: https://doi.org/10.1007/s12599-018-0542-4.

Wewerka, J. & Reichert, M. (2020) Towards Quantifying the Effects of Robotic Process Automation. DBIS EPub (University of Ulm). Available from: https://doi.org/10.1109/edocw49879.2020.00015.

