

Reviewing Election Process using Robotic Process Automation

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ABSTRACT

Robotic Process Automation (RPA) automates repetitive tasks using software robots or AI workers, enabling more intelligent interaction with the user interface. Unlike traditional methods that use screen recording and macros, RPA primarily relies on element identification. Software robotics involves using software programs or algorithms to automate tasks and processes, creating virtual robots (also known as 'bots') that mimic human interactions and perform tasks typically performed by humans. The Election Process has been facing issues such as voter duplicate registration, difficulty in finding polling locations, delays, paper ballot counting, and fraud in voters' eligibility. These are largely due to human interventions that tend to make the whole process somewhat incredible. The error may be inadvertently committed due to tiredness and tardiness thereby improving election efficiency, accuracy, and transparency by utilizing Automated Voter Registration, RPA-powered chatbots, Ballot Processing, Data Validation, and Verification in various aspects. This paper explores the challenges of implementing RPA in the election process, emphasizing the need for careful planning, cyber security, legal compliance, and maintaining transparency and data privacy. The findings should serve as an adequate basis for implementing a better election procedure that may reduce election fraud and errors.

Keywords: Robotics, polls, Chatbots, Ballot, Election.