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Sommario/riassunto

ROBOTIC PROCESS AUTOMATION Presenting the latest technologies and practices in this ever-changing field, this groundbreaking new volume covers the theoretical challenges and practical solutions for using robotics across a variety of industries, encompassing many disciplines, including mathematics, computer science, electrical engineering, information technology, mechatronics, electronics, bioengineering, and command and software engineering. Robotics is the study of creating devices that can take the place of people and mimic their behaviors. Mechanical engineering, electrical engineering, information engineering, mechatronics, electronics, bioengineering, computer engineering, control engineering, software engineering, mathematics, and other subjects are all included in robotics. Robots can be employed in a variety of scenarios and for a variety of objectives, but many are now being used in hazardous areas (such as radioactive material inspection, bomb detection, and deactivation), manufacturing operations, or in conditions where humans are unable to live (e.g. in space, underwater, in high heat, and clean up and containment of hazardous materials and radiation). Walking, lifting, speaking, cognition, and any other human activity are all attempted by robots. Many of today's robots are influenced by nature, making bio-inspired robotics a growing area. Defusing explosives, seeking survivors in unstable ruins, and investigating mines and shipwrecks are just a few of the activities that robots are designed to undertake. This groundbreaking new volume presents a Robotic Process Automation (RPA) software technique that makes it simple to create, deploy, and manage software robots that mimic human movements while dealing with digital systems and software. Software robots can interpret what's on a screen, type the correct keystrokes, traverse systems, locate and extract data, and do a wide variety of predetermined operations, much like people. Software robots can do it quicker and more reliably than humans, without having to stand up and stretch or take a coffee break.