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insights into the cutting-edge techniques and tools used in VLSI design automation, making it an essential resource for anyone seeking to stay ahead in the rapidly evolving field of VLSI design. Very large-scale integration (VLSI) is the inter-disciplinary science of utilizing advanced semiconductor technology to create various functions of computer system. This book addresses the close link of microelectronics and artificial intelligence (AI). By combining VLSI technology, a very powerful computer architecture confinement is possible. To overcome problems at different design stages, researchers introduced artificial intelligent (AI) techniques in VLSI design automation. AI techniques, such as knowledge-based and expert systems, first try to define the problem and then choose the best solution from the domain of possible solutions. These days, several CAD technologies, such as Synopsys and Mentor Graphics, are specifically created to increase the automation of VLSI design. When a task is completed using the appropriate tool, each stage of the task design produces outcomes that are more productive than typical. However, combining all of these tools into a single package offer has drawbacks. We can't really use every outlook without sacrificing the efficiency and usefulness of our output. The researchers decided to include AI approaches into VLSI design automation in order to get around these obstacles. AI is one of the fastest growing tools in the world of technology and innovation that helps to make computers more reliable and easy to use. Artificial Intelligence in VLSI design has provided high-end and more feasible solutions to the difficulties faced by the VLSI industry. Physical design, RTL design, STA, etc. are some of the most in-demand courses to enter the VLSI industry. These courses help develop a better understanding of the many tools like Synopsis. With each new dawn, artificial intelligence in VLSI design is continually evolving, and new opportunities are being investigated.

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