

## **How Automation May Affect Your Future Career**

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The impact of Automation and Robotics on future Manufacturing Operations, may significantly affect Industrial & Systems Engineering (ISE) - related jobs. Some course-work and self-study during college, and also during the first years out working, may help in dealing with this future impact.

Expect many traditional Manufacturing Operations to utilize much more Automation and Robotics. This will probably make the traditional ISE job duties become more of a “Systems Consulting” role, utilizing large-scale analysis and process simulation (vs. more traditional, detailed manufacturing design).

For those working in future Manufacturing applications, it may require the Industrial & Systems Engineer to also be very familiar with some Manufacturing, Mechanical & Electrical Engineering applications. To do this while still in college, you may need to be selective in which technical electives you chose, to go along with your ISE degree.

The combination of increased use of Automation, smart Robots, and expansion of Artificial Intelligence, will make for a much smarter “Factory-of-the-Future”. This will require engineers to have a broad understanding of many technical applications, in order to be an effective engineer and consultant in the future.

The ISE should still be effective in the future, if their traditional knowledge is also supplemented with knowledge of Automation and Robotics/Artificial Intelligence.