SYSTEMS ENGINEERING

Systems Engineering is an interdisciplinary field of engineering that focuses on how to design and manage complex engineering systems. System Engineers are typically responsible for ensuring system requirements are met and reliable. In addition, they manage system logistics, coordinate different teams, while also maintaining system(s) to ensure successful system development, design, implementation, and finally the decommission of a system. System Engineers also deal with work-processes, optimization methods, and risk management tools during projects. Their job usually overlaps technical expertise with human-centered disciplines such as control engineering, industrial engineering, software engineering, organizational studies, and project management. Systems Engineers ensure that all aspects of a project or system are considered and integrated efficiently into a system as a whole.

Skills Acquired

- Assess and improve efficiency and quality of processes
- Project, people, and resource management
- Effective communication and leadership
- Coordinate critical organizational functions
- Supervise technical development

Sample Occupations

- Industrial Engineer
- Operations Researcher
- IT Systems Engineer
- Safety Engineer

Sample Work Settings

- Industrial Engineering
- Cognitive Systems Engineering
- Configuration Management
- Control Engineering
- Interface Design
- IT Systems Engineering
- Mechatronic Engineering Scheduling
- Enterprise Systems Engineering
- Reliability Engineering

Sample Employers

- Decisive Analytics
- Systems Engineering Services Corporation
- MITRE Corporation
- Delta Systems Engineering
- Power Systems
- Lockheed Martin
- Aerotek

Industrial Engineer Annual Salary (BLS, 2017): Regional Average: $89,510 | National Average: $90,340

PROFESSIONAL ORGANIZATIONS

Learn more about the field, network, and search for scholarship, internship, and job opportunities.

- Institute of Industrial and Systems Engineers www.iise.org
- Institute of Industrial Engineers www.iienet2.org
- International Council on Systems Engineering www.incose.org
- National Society of Professional Engineers www.nspe.org

JOB SEARCH RESOURCES

Keywords: Industrial Engineering, Systems Operations

- Engineering Central www.engcen.com
- Engineering Jobs www.engineerjobs.com
- Engineering.com www.engineering.com/jobs
- iHireEngineering www.ihireengineering.com