QUEST
Professional Center

PROFESSIONAL TRAINING COURSE

Course No. 1727

AI Automation & Intelligent Process Optimization Training Course

ARTIFICIAL INTELLIGENCE IN GOVERNMENT
GOVERNMENT & PUBLIC SECTOR

DURATION
5 Days

DELIVERY
Classroom

Course Overview

The AI Automation & Intelligent Process Optimization Training Course provides a strategic and practical framework for applying artificial intelligence to process automation, operational improvement, service optimization, and data-driven decision-making. The course is designed for government entities, ministries, public-sector organizations, banks, financial institutions, oil and gas organizations, and large corporations seeking to identify automation opportunities and transform traditional processes into more intelligent, efficient, and measurable workflows.

Intelligent automation goes beyond simply replacing manual tasks with technology. It involves redesigning processes and integrating artificial intelligence with data analysis, decision-making, workflow management, and employee and customer interactions. This approach enables organizations to identify operational bottlenecks, reduce repetitive activities, improve transaction processing, and enhance consistency and service quality.

The program covers the intelligent process optimization lifecycle, beginning with current-state process analysis and identification of automation opportunities, followed by AI use-case assessment, prioritization, workflow design, data requirements, integration considerations, governance, and impact measurement. It also explores practical applications of Generative AI, Machine Learning, and Natural Language Processing in enterprise automation.

Particular emphasis is placed on selecting high-value AI automation use cases, assessing feasibility and risk, designing future-state processes, defining appropriate human intervention points, and establishing effective oversight mechanisms. The course also addresses organizational readiness, change management, responsible AI practices, and governance requirements to support sustainable implementation.

Through case studies, process analysis exercises, workflow mapping, AI use-case development, automation opportunity assessments, and roadmap development, participants will build the practical capabilities required to design and implement AI automation initiatives that improve operational efficiency, service quality, decision-making, and resource utilization.

Objectives

- Analyze the fundamental principles of AI automation and intelligent process optimization.
- Assess existing business processes and identify activities suitable for automation.
- Identify high-value AI use cases aligned with organizational priorities and operational requirements.
- Apply process analysis techniques to identify bottlenecks, duplication, delays, and inefficiencies.
- Design future-state processes that integrate artificial intelligence and intelligent automation.
- Evaluate automation initiatives based on value, cost, risk, feasibility, and organizational readiness.
- Design intelligent workflows with clearly defined automated and human decision points.
- Apply Generative AI, Natural Language Processing, and other AI technologies to appropriate business use cases.
- Develop performance indicators for measuring automation impact on efficiency, quality, speed, and service experience.
- Assess AI automation risks and establish appropriate governance, oversight, and control mechanisms.
- Develop practical implementation roadmaps for prioritizing and deploying AI automation initiatives.
- Establish continuous improvement approaches for scaling and optimizing successful automation solutions.

Who Should Attend

This training course is designed for executives, digital transformation leaders, operations managers, innovation managers, information technology managers, process improvement professionals, business analysts, automation specialists, AI professionals, project managers, and organizational transformation professionals.

It is particularly relevant to professionals working in government entities, ministries, public-sector organizations, banks, financial institutions, oil and gas organizations, and large corporations seeking to use artificial intelligence to improve processes, automate repetitive activities, enhance services, and increase operational efficiency.

The program will also benefit department heads, transformation leaders, process owners, data professionals, service design specialists, and decision makers involved in identifying automation opportunities, evaluating AI use cases, designing intelligent workflows, implementing automation solutions, and measuring transformation outcomes.

Learning Outcomes

- Analyze organizational processes and identify opportunities for AI-driven improvement.
- Identify tasks and activities suitable for automation based on value, risk, and feasibility.
- Map current-state processes and identify bottlenecks, duplication, delays, and sources of waste.
- Design more efficient future-state processes using AI and intelligent automation.
- Develop practical AI use cases aligned with organizational and operational requirements.
- Evaluate automation use cases according to expected impact, cost, risk, and readiness.
- Design intelligent workflows that balance automation with appropriate human oversight.
- Apply Generative AI and Natural Language Processing to suitable operational scenarios.
- Identify data, system, and integration requirements for AI automation initiatives.
- Develop KPIs for measuring the impact of automation on performance, efficiency, and service quality.
- Identify AI and automation risks and establish governance and review mechanisms.
- Develop an implementation roadmap for prioritizing and deploying intelligent automation initiatives.
- Establish continuous improvement mechanisms for scaling and optimizing successful automation solutions.

Course Outline

DAY 01

AI Automation Foundations & Process Analysis

- Intelligent automation and its role in organizational transformation
- Artificial intelligence, process automation, and workflow redesign
- Current-state process analysis and process documentation
- Identifying repetitive tasks, bottlenecks, delays, and inefficiencies

DAY 01 — CONTINUED

- Identifying opportunities for AI-enabled process improvement
- Assessing organizational readiness for intelligent automation

PRACTICAL APPLICATION

Analyze an organizational process and identify priority automation and optimization opportunities

DAY 02

AI Use Cases & Intelligent Automation Design

- Methods for identifying and selecting AI automation use cases
- Classifying and prioritizing use cases based on value, impact, and feasibility
- Automating administrative, operational, and knowledge-based tasks
- Generative AI applications in business and government workflows
- Natural Language Processing, information extraction, and intelligent document automation
- Data requirements, dependencies, and risks associated with AI use cases

PRACTICAL APPLICATION

Design and evaluate AI automation use cases for selected organizational processes

DAY 03

Intelligent Process Optimization & Workflow Design

- Principles of process redesign and performance improvement
- Designing future-state processes and intelligent workflows
- Integrating AI with enterprise systems and business applications
- Defining decision points, automation points, and human intervention
- Managing exceptions and human review within automated processes
- Designing more efficient employee, customer, and citizen experiences

DAY 03 — CONTINUED

PRACTICAL APPLICATION

Redesign an existing process and convert it into an intelligent workflow

DAY 04

AI Automation Implementation, Governance & Risk Management

- Data and system integration requirements for intelligent automation
- Evaluating feasibility, cost, business value, and implementation requirements
- AI and automation risk management
- AI governance, accountability, oversight, and control mechanisms
- Data privacy, information security, and access management
- Change management and employee adoption of automated solutions

PRACTICAL APPLICATION

Develop a risk assessment and governance framework for an AI automation initiative

DAY 05

Impact Measurement & Intelligent Automation Roadmap

- Developing KPIs for AI automation and process optimization
- Measuring efficiency, quality, speed, productivity, and service experience
- Evaluating automation outcomes and organizational value
- Identifying opportunities to scale and replicate successful solutions
- Developing an intelligent automation roadmap and implementation phases
- Continuous improvement and AI automation lifecycle management

DAY 05 — CONTINUED

FINAL WORKSHOP

Develop an integrated AI Automation & Intelligent Process Optimization roadmap covering process analysis, AI use-case identification, feasibility assessment, workflow redesign, data and integration requirements, governance, risk management, change management, performance measurement, impact assessment, implementation priorities, scalability, and continuous improvement.

Register or Request More Information

Course page: https://quest-training.com/courses/ai-automation-intelligent-process-optimization-training-course
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