

GENERATIVE AND AGENTIC AI

FOR PROCESS INDUSTRIES

From Industrial Copilots to Autonomous Operations



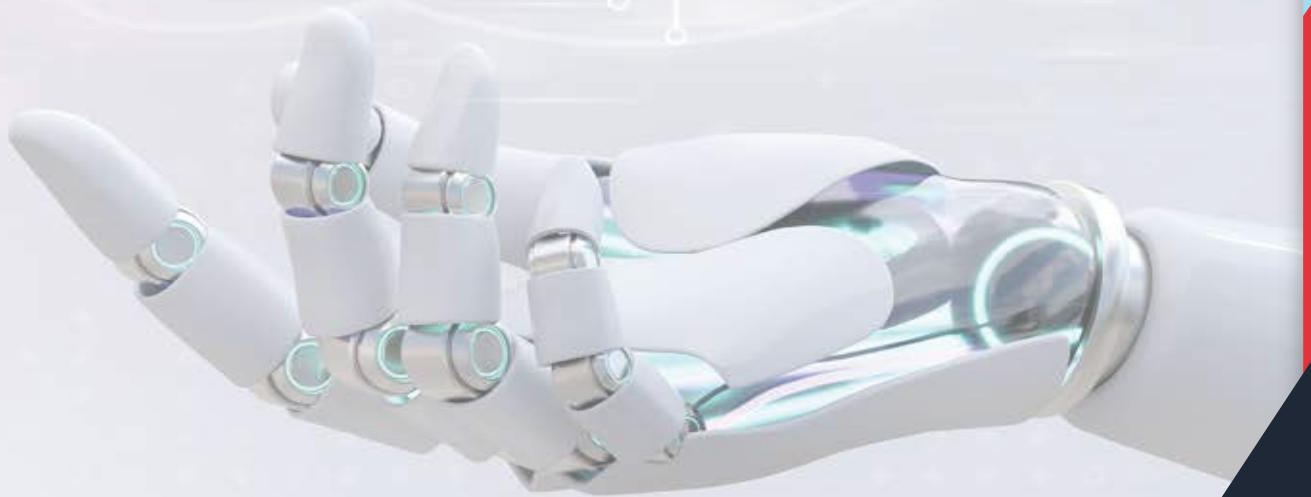
16-19
November 2026



4 -Day Live Instructor-Led
Total Duration: 16 Hours



08:00 – 12:00
Eastern Standard Time



EXECUTIVE TRAINING PROGRAM

A premium executive education program for professionals in maintenance, reliability, operations, asset management, engineering, and digital transformation. Learn how Generative AI, Industrial Copilots, Agentic AI, Digital Twins, and Autonomous Decision Support Systems are transforming asset-intensive industries through practical applications, business strategy, and operational excellence.

Join our global industry expert & instructor:
Dr. Diego Galar and transform your learning experience

Course Overview

Industrial organizations are entering a new phase of digital transformation where Artificial Intelligence is evolving beyond analytics and prediction toward systems capable of reasoning, planning, collaborating, and supporting complex operational decisions.

While the first generation of Industrial AI focused on anomaly detection, optimization, and predictive analytics, the next generation is driven by Generative AI, Industrial Copilots, Agentic AI, and autonomous decision-support systems.

These technologies are enabling organizations to transform how knowledge is managed, how decisions are made, and how operations are executed across asset-intensive industries.

This executive program provides a practical understanding of the technologies, architectures, and business strategies that are shaping the future of industrial intelligence.

Participants will explore how Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), Knowledge Graphs, Digital Twins, Industrial Copilots, and Multi-Agent Systems can be applied within Oil & Gas, Petrochemical, Energy, Utilities, Mining, and Manufacturing environments.

Rather than focusing on coding or software development, the course emphasizes practical industrial applications, implementation strategies, governance considerations, business value creation, and lessons learned from early adopters.

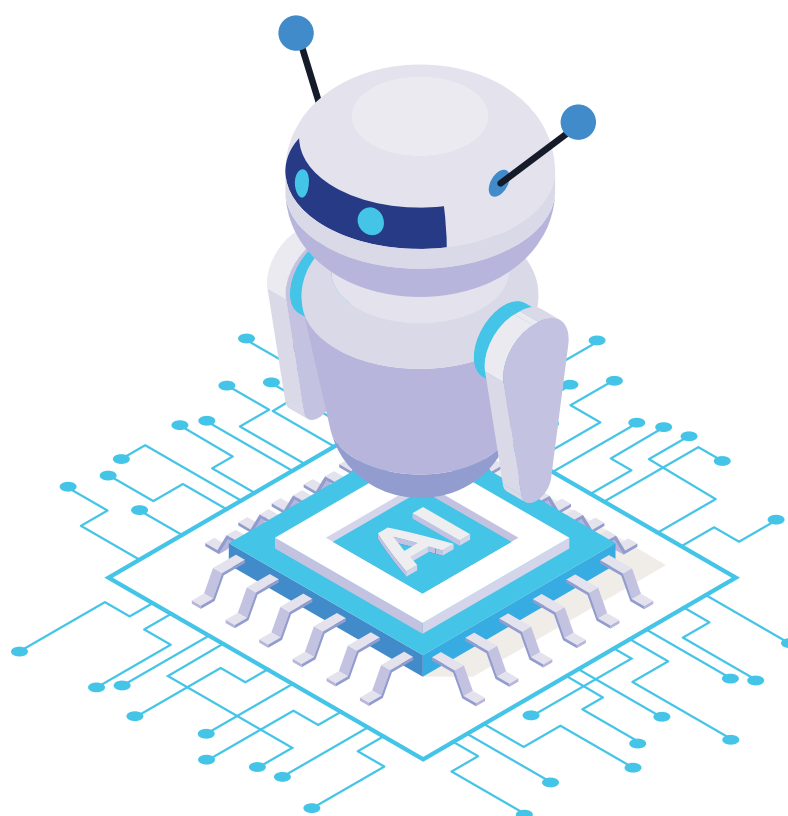
Participants will gain a structured understanding of how organizations are moving from digital operations toward intelligent operations, and ultimately toward autonomous industrial systems capable of supporting decision-making, optimizing workflows, and improving operational resilience.

Key Takeaways

Organizations that successfully combine Generative AI, Industrial Copilots, Agentic AI, Knowledge Graphs, Digital Twins, and Autonomous Decision Support Systems will be better positioned to improve productivity, accelerate decision-making, retain critical knowledge, and build the intelligent operations of the future. This course provides the knowledge, frameworks, and practical perspectives required to lead that transformation.

Delivery Format

- » Live Instructor-Led Virtual Training
- » Interactive Executive Cohort
- » Industrial Use Cases and Demonstrations
- » Case Studies and Group Discussions
- » Executive Discussion & Q&A
- » Certificate of Completion



What This Program Covers

Generative AI

Understanding how Large Language Models are transforming industrial knowledge management, technical support, and decision-making.

Industrial Copilots

Exploring AI-powered assistants that augment engineers, operators, maintenance professionals, and managers.

Retrieval-Augmented Generation (RAG)

Connecting AI systems to enterprise knowledge repositories, technical documentation, and operational data.

Industrial Knowledge Graphs

Creating context-aware AI systems capable of understanding assets, processes, and operational relationships.

Agentic AI

Understanding autonomous AI agents capable of planning, reasoning, and executing complex workflows.

Multi-Agent Systems

Exploring collaborative AI ecosystems that support operations, maintenance, and engineering activities.

Digital Twins and AI Integration

Connecting Digital Twins with AI agents to create intelligent operational environments

Autonomous Operations

Understanding how organizations are progressing from human-supported decisions toward AI-assisted and autonomous workflows

Self-Preserving Assets

Exploring the future convergence of Agentic AI, Digital Twins, Industrial Intelligence, and autonomous resilience.



Program Structure & at a Glance

This four-day executive program provides a structured journey through the technologies, architectures, and operational strategies that are transforming industrial intelligence. Participants will explore how organizations are progressing from Generative AI and Industrial Copilots toward Agentic AI, Multi-Agent Systems, Digital Twin integration, and Autonomous Operations. The program combines practical industrial applications, implementation frameworks, governance considerations, and future perspectives to help participants understand how intelligent systems can create measurable value across asset-intensive industries.

DAY 1

Foundations of Generative AI and Industrial Copilots

Understanding the New Industrial Intelligence Landscape

DAY 2

Agentic AI and Autonomous Workflows

From Information Generation to Intelligent Action

DAY 1

Agentic AI for Process Industries

Connecting AI, Operations and Enterprise Knowledge

DAY 2

Autonomous Industrial Intelligence

Building the Future of Intelligent Operations

Why Attend?

From Generative AI to Autonomous Industrial Intelligence

Industrial organizations are rapidly moving beyond traditional analytics and automation toward a new generation of intelligent systems capable of reasoning, planning, collaborating, and supporting operational decisions. While Generative AI has captured global attention, many organizations are now asking a more important question:

How can AI create measurable value within real industrial environments? This program has been designed to answer that question. Rather than focusing on generic AI tools or consumer applications, the course provides a practical framework for understanding how Generative AI, Industrial Copilots, Agentic AI, Knowledge Graphs, Digital Twins, and Autonomous Decision Support Systems can be applied within asset-intensive industries.

Learn from Real Industrial Use Cases

Throughout the program, participants will review practical examples and emerging deployments from asset-intensive industries, including:

» Oil & Gas » Petrochemical » Energy » Utilities » Mining » Manufacturing

Target Audience

Designed for Industrial Leaders Driving the Next Generation of AI Transformation

This program has been specifically designed for professionals responsible for improving operational performance, accelerating digital transformation, managing industrial knowledge, and evaluating the adoption of Generative AI and Agentic AI within asset-intensive industries. As organizations move beyond traditional analytics toward AI-enabled decision support and autonomous operations, collaboration between engineering, operations, maintenance, IT, data science, and business leadership becomes increasingly important. This course provides a common framework for understanding how Generative AI, Industrial Copilots, Agentic AI, Knowledge Graphs, Digital Twins, and Autonomous Intelligence can create measurable business value. Unlike highly technical AI development programs or generic business AI courses, this executive training focuses on practical industrial applications and strategic decision-making within real operational environments.

Target Job Functions

Digital Transformation Leaders

Professionals responsible for defining AI strategies, evaluating technology opportunities, and leading organizational transformation initiatives.

Engineering Managers and Technical Authorities

Professionals seeking to understand how Generative AI and Agentic AI can support engineering workflows, knowledge management, and technical decision-making.

Operations Excellence Managers

Leaders seeking to improve productivity, decision-making, process efficiency, and operational performance through AI-enabled systems.

Data Scientists and Industrial Analytics Professionals

Professionals focused on the evolution from traditional analytics and machine learning toward Agentic AI and autonomous intelligence systems.

Maintenance Managers and Reliability Leaders

Professionals interested in understanding how Industrial Copilots, Agentic AI, and intelligent decision support can enhance maintenance and reliability activities.

IT, OT and Enterprise Architecture Professionals

Professionals responsible for integrating AI technologies with operational systems, enterprise platforms, Digital Twins, and industrial information environments.

Asset Managers and Asset Performance Professionals

Leaders responsible for maximizing asset value, managing operational risk, and supporting lifecycle decision-making.

Innovation and Technology Leaders

Decision-makers evaluating emerging technologies and identifying opportunities for future industrial transformation.

Target Industries

The concepts, technologies, and frameworks discussed throughout this program are applicable across a broad range of asset-intensive industries:

Oil & Gas: Organizations seeking to improve operational efficiency, knowledge management, reliability, safety, and decision-making across upstream, midstream, and downstream operations.

Petrochemical and Chemical Industries: Process-intensive environments where AI can support operational optimization, engineering knowledge management, and intelligent decision support.

Energy and Power Generation: Organizations exploring how AI can enhance operational performance, asset management, and future autonomous operations

Utilities and Water Infrastructure: Operators of critical infrastructure seeking to improve resilience, efficiency, and operational intelligence.

Mining and Mineral Processing: Organizations managing complex operations where AI-assisted decision support can improve productivity, safety, and asset utilization.

Manufacturing and Industrial Production: Facilities adopting Industry 4.0 and Industry 5.0 strategies to improve operational efficiency and workforce productivity

About the Instructor



Prof. Diego Galar

Chairman, European Federation of National Maintenance Societies (EFNMS) Professor of Condition Monitoring, Luleå University of Technology (LTU), Sweden Vice President, Sisteplant

Prof. Diego Galar is an internationally recognized authority in Reliability Engineering, Asset Management, Industrial Artificial Intelligence, Digital Twins, Prognostics & Health Management (PHM), Condition-Based Maintenance (CBM), and next-generation intelligent industrial systems. Over the past two decades, he has worked at the intersection of academia, industry, and innovation, helping organizations improve operational performance, reliability, resilience, and digital transformation through the application of advanced engineering methodologies and emerging technologies.

As Chairman of the European Federation of National Maintenance Societies (EFNMS), Prof. Galar plays a leading role in shaping the future of maintenance, reliability, and asset management across Europe. Through EFNMS, he actively promotes international collaboration, professional development, standardization initiatives, and the adoption of advanced technologies across asset-intensive industries.

In parallel, he serves as Professor of Condition Monitoring at Luleå University of Technology (LTU) in Sweden, one of the world's leading institutions in maintenance and reliability engineering. His research has contributed significantly to the advancement of diagnostics, prognostics, Digital Twins, industrial intelligence, and autonomous maintenance systems.

Prof. Galar also serves as Vice President at Sisteplant, where he supports industrial organizations in implementing reliability improvement programs, Asset Performance Management strategies, Industrial AI initiatives, Digital Twin deployments, and advanced operational transformation projects. His work spans multiple sectors including Oil & Gas, Petrochemical, Energy, Utilities, Mining, Manufacturing, Transportation, and Critical Infrastructure.

Areas of Expertise

Generative AI and Industrial Copilots: Application of Large Language Models, enterprise knowledge assistants, and AI-enabled decision support systems within industrial environments.

Agentic AI and Autonomous Industrial Intelligence: Development and application of intelligent agents, multiagent systems, and autonomous operational architectures capable of supporting complex industrial workflows.

Industrial Knowledge Graphs and Context-Aware AI: Integration of enterprise knowledge, semantic models, ontologies, and contextual intelligence to improve decision quality and operational awareness

Digital Twins and Intelligent Operational Environments: Design and deployment of Digital Twin solutions supporting diagnostics, optimization, simulation, lifecycle management, and AI-enhanced decision support.

Reliability Engineering and Asset Performance Management: Implementation of reliability-centered strategies that improve asset availability, reduce operational risk, and support long-term business performance

Prognostics & Health Management (PHM): Application of diagnostics, prognostics, Remaining Useful Life estimation, and advanced decision-support frameworks.

Self-Preserving Assets and Cognitive Maintenance: Research and industrial application of intelligent systems capable of monitoring performance, assessing operational risk, adapting behaviour, and supporting resilient operations.

Research, Innovation and International Leadership

Prof. Galar has coordinated and participated in numerous national and international research projects involving:

Industrial AI • Industry 4.0 and Industry 5.0 • Cyber-Physical Systems • Internet of Things (IoT) • Digital Twins • Big Data Analytics • Smart Maintenance • Asset Management • Reliability Engineering.

His work has been conducted in collaboration with major industrial organizations, research institutions, and governmental agencies across Europe and internationally.

Publications and Scientific Contributions

Prof. Galar has authored and co-authored more than 500 scientific publications, including journal articles, conference papers, technical reports, books, and industrial guidelines. His research has contributed to the development of innovative methodologies and practical solutions in maintenance engineering, industrial intelligence, reliability, and autonomous operational systems.

He is a frequent keynote speaker at international conferences and regularly contributes to scientific committees, editorial boards, and professional organizations dedicated to advancing industrial excellence and digital transformation.

Why Learn from Prof. Diego Galar?

Participants benefit from a unique combination of academic excellence, industrial experience, international leadership, practical implementation expertise, innovation and research leadership, and a strategic business perspective. His ability to connect engineering, maintenance, reliability, Artificial Intelligence, Digital Twins, and operational strategy provides participants with practical insights that can be directly applied within assetintensive industries.

Core Expertise:

- Generative AI
- Industrial Copilots
- Agentic AI
- Multi-Agent Systems
- Knowledge Graphs
- Digital Twins
- Autonomous Operations
- Reliability Engineering
- Asset Performance Management
- Prognostics & Health Management (PHM)
- Cognitive Enterprises
- Self-Preserving Systems

International Roles:

- » Chairman, European Federation of National Maintenance Societies (EFNMS)
- » Professor, Luleå University of Technology (LTU)
- » Vice President, Sisteplant
- » International Keynote Speaker
- » Research Project Coordinator
- » Industry Advisor

Connecting engineering excellence, industrial intelligence, and autonomous systems to shape the future of Maintenance & Reliability

Recommended Follow-on Executive Programs

Expanding the Journey Toward Autonomous Industrial Intelligence

The rapid evolution of Artificial Intelligence is creating new opportunities across engineering, maintenance, operations, and business functions. For organizations seeking to deepen their capabilities beyond the scope of this program, the following advanced executive courses provide focused learning paths in key areas of industrial intelligence and digital transformation.

Advanced Industrial Copilot Development

Building Enterprise AI Assistants for Engineering, Maintenance and Operations

This advanced program focuses on the design, deployment, governance, and business integration of Industrial Copilots capable of supporting technical teams, operational personnel, and decision-makers.

Key Topics: Enterprise Copilot Architectures | Engineering Knowledge Assistants | Maintenance Copilots | Operations Support Systems | Human-AI Collaboration | Copilot Governance | Business Adoption Strategies

Industrial RAG and Knowledge Graphs

Building Context-Aware Industrial Intelligence

A specialized program dedicated to Retrieval-Augmented Generation (RAG), enterprise knowledge architectures, industrial ontologies, and Knowledge Graphs.

Key Topics: Retrieval-Augmented Generation (RAG) | Enterprise Knowledge Integration | Knowledge Graph Architectures | Ontologies and Semantic Models | Context-Aware AI | Industrial Information Governance | Enterprise Search and Reasoning

Multi-Agent Systems for Industry

Designing Collaborative AI Ecosystems

This course explores the design and deployment of multi-agent environments capable of coordinating complex industrial workflows and supporting intelligent operational ecosystems.

Key Topics: Agent Architectures | Multi-Agent Collaboration | Workflow Orchestration | Distributed Intelligence | Autonomous Task Coordination | Human-Agent Collaboration | Industrial Use Cases

Advanced Digital Twins and Autonomous Operations

Integrating Digital Twins, AI Agents and Operational Intelligence

This advanced program examines how Digital Twins are evolving into intelligent operational environments capable of interacting with AI agents and supporting autonomous decision-making.

Key Topics: Digital Twin Architectures | AI-Enhanced Digital Twins | Digital Threads and Digital Shadows | Intelligent Operations Centers | Autonomous Workflow Management | Decision Support Systems | Future Operational Environments

Self-Preserving Systems and Cognitive Enterprises

The Future of Industrial Resilience

This executive program explores the convergence of Generative AI, Agentic AI, Digital Twins, Resilience Engineering, and Autonomous Operations to create adaptive and self-preserving industrial systems.

Key Topics: Cognitive Enterprises | Self-Preserving Systems | Resilience Engineering | Autonomous Industrial Intelligence | Adaptive Operational Architectures | Human-AI Ecosystems | Future Industrial Organizations

Recommended Learning Path:

Foundation Level: Industrial AI, Digital Twins and Data Science for Maintenance & Reliability Excellence

Intermediate Level: Generative and Agentic AI for Process Industries

Advanced Specialization: Advanced Industrial Copilot Development • Industrial RAG and Knowledge Graphs • Multi-Agent Systems for

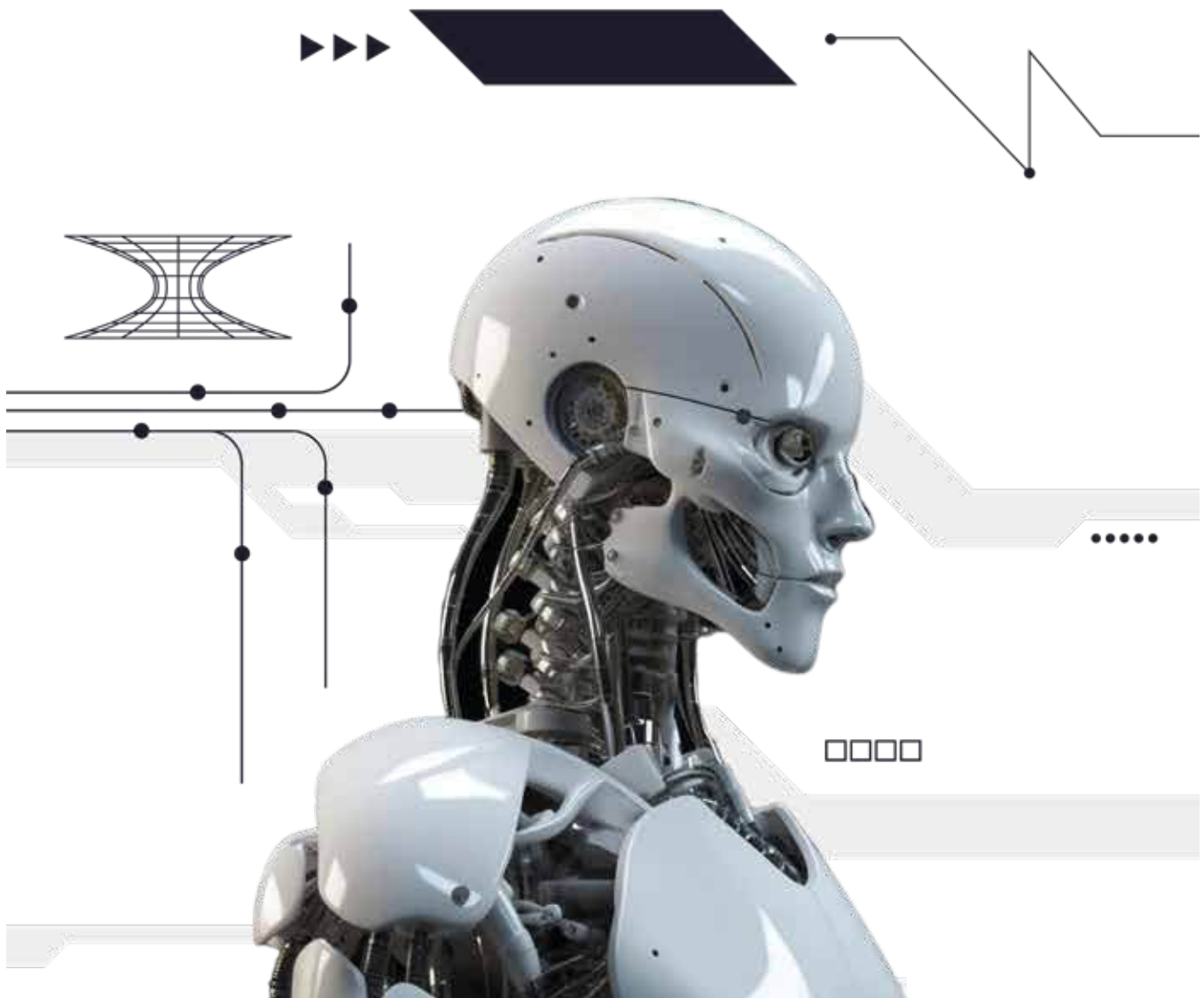
Strategic Leadership Level: Self-Preserving Systems and Cognitive Enterprises

Building the Roadmap from Industrial AI to Autonomous Industrial Intelligence: Together, these programs provide a structured pathway for organizations seeking to progress from traditional digital transformation initiatives toward the next generation of intelligent, adaptive, and autonomous industrial systems.

Certificate of Completion:

Participants who successfully complete the program will receive an official Certificate of Completion recognizing their participation in:

Generative and Agentic AI for Process Industries From Industrial Copilots to Autonomous Operations



Please complete this form and send it back to
mithun.siddartha@biiworld.com

Event Code: OL TE 120

Delegate Details

- Name: Mr/Mrs/ Ms
.....
Job Title:
Email:
- Name: Mr/Mrs/ Ms
.....
Job Title:
Email:
- Name: Mr/Mrs/ Ms
.....
Job Title:
Email:

PAYMENT METHOD:

CREDIT CARD ☐

The secured payment link will be shared/sent

WIRE TRANSFER OR BANK TRANSFER ☐

Authorization and Acceptance of Sales Contract & Terms & Conditions

I hereby declare I am authorised to sign this contract and terms
& conditions in the name of the company/organisation:

Name:

Date:

Signature:

Delegate Fee ☐ **USD 1299 per delegate**

20 USD administration charge and any applicable withholding or any other tax or fee will be applied

Company/Organisation Detail

Name:
Person to Contact:
Email:
Address:
.....
City:
Country:
Contact No:
Type of Business:
Website:

TERMS & CONDITIONS:

1. Payment terms: BII World LTD requires the full payment of the invoiced amount within 7 working days from the issue date of the invoice. BII World LTD reserves the right to refuse entry to any client who does not pay the invoice in full and on time. The registration fee includes: Training documentation and admission to all training sessions.

2. Cancellation by client: The client has the right to cancel his/her participation in the event. Cancellation must be received by BII World LTD in writing either by mail or fax. If the client cancels the event, he/she will get two options:

- A. CREDIT NOTE:** Choose 2-year credit note, BII World LTD will send all the schedule training event details throughout the year. Delegate has the right to choose and attend any of the future training programs of BII World (valid 2 years).
- B. NOMINATION:** In this option delegate can nominate/refer someone from his/her group/company to attend the particular training program on behalf of the actual delegate.

3. Cancellation by BII World LTD : While every reasonable effort is made to adhere to the advertised program, circumstances can arise which may cause changes in the program, including but not limited to changes in the content, date(s), or special features of the planned event. Such circumstances include but are not limited to acts of terrorism, war, extreme weather conditions, compliance with government requests, orders and legal requirements, failure of third-party suppliers to timely deliver, and failure to register the minimum target number of attendees for a given event. BII World LTD reserves the right to change the content, date(s), and/or special features of an event, to merge the event with another event, or to postpone it or cancel it entirely as appropriate under the circumstances. Client agrees that BII World LTD shall not be liable for any cost, damage or expense which may be incurred by client as a consequence of the event being so changed, merged, postponed or canceled and client agrees to hold BII World LTD harmless and to indemnify BII World LTD in case of liability caused by any such changes, mergers, postponements or cancellations.

4. Cancellation of the event: In case BII World LTD cancels an event, then client can choose any of the below mentioned options:

- (a) BII World LTD will refund full payment to the client within 15 business days.
(b) Client can choose the credit option for 2 years, for more details please read term no-2 part (a)

5. Postponement of the event : In case BII World LTD postpones the event to a new date, then client can choose any of the below mentioned options.

- (a) The client can attend the course on the postponed dates.
(b) Client can choose the credit option for 2 years, for more details please read term no-2 part (a)

6. Client's identification information. By signing of this sales contract and these terms and conditions the client gives full right to BII World LTD to share the client's identification information, i.e. client's name, address, email addresses, phone numbers and names of representatives and website with other clients who participated in the same event. The client has the right to opt out of this clause by written notice to BII World LTD.

7. Governing law: This contract shall be governed by and construed in accordance with the laws of the Province of Alberta, Canada. Any disputes arising under or in connection with this registration form shall be sealed before the competent court in Canada.

8. Indemnification: To the fullest extent permitted by the law, you agree to protect, indemnify, defend and hold harmless BII World LTD, its owners, managers, partners, subsidiaries, affiliates, officers, directors, employees and agents, from and against any and all claims, losses or damages to persons or property, governmental charges or fines, penalize, and costs (including reasonable attorney's fees) (collectively "the Claims"), in any way arising out of or relating to the event that is the subject of this contract, and regardless of negligence, included but not limited to, Claims arising out of the negligence, gross negligence or intentional misconduct of BII World LTD employees, agents, contractors, and attendees; provided, however, that nothing in this indemnification shall require you to indemnify BII World LTD Indemnified parties for that portion of any Claim arising out of the sole negligence, gross negligence or intentional misconduct of the BII World LTD parties.

9. Other currencies. In case that client requests payment in other than official currency (USD), BII World LTD reserves the right to apply 5% currency risk surcharge to the actual exchange rate.

10. Other Conditions: Any terms or conditions contained in the client's acceptance which contradict or are different from the terms and conditions of this registration document shall not become part of the contract unless individually negotiated with BII World LTD and expressly accepted by BII World LTD.