Welcome to AI for Telco Part 5: Agentic AI and Agents

ANI_112d | On-Demand | Automation and Insights | Express
Course Duration: 1 hour

This on?demand, one?hour course introduces Agentic AI for telecom. It begins with foundations of Generative AI (GenAI) and Retrieval?Augmented Generation (RAG) and their applications, then defines agentic AI, key components, and agent types. Learners design intelligent agent architectures, explore multi?agent systems, scalability, performance, and agent communication, and program agents using APIs and modern frameworks (including LangChain). Practical telecom use cases—cell?tower optimization, autonomous congestion management, and network log retrieval and action—anchor the concepts. The course closes with evaluating agent performance through metrics, testing, and debugging.

Intended Audience

Those looking for basic introduction to agentic AI.

Objectives

After completing this course, the learner will be able to:

- Define the concept and key components of Agentic AIs
- Identify different types of agents within Agentic AI
- Design intelligent agent architectures
- Implement basic and advanced agents using relevant APIs and framework
- Evaluate agent performance through metrics, testing, and debugging

Outline

1. Foundations of Generative AI and RAG in Telecom
1.1 Overview of GenAI and RAG
1.2 Use Case: Optimizing Cell Tower Performance

2. Understanding Agentic AI for Telecom
2.1 What is Agentic AI?
2.2 Components of Agentic AI
2.3 Use Case: Autonomous Network Congestion Management

3. Design and Coordinating Telecom Agents
3.1 Types of Agent Architectures
3.2 Multi-Agent Systems, Scalability and Performance
3.3 Agent Communication

4. Building Telecom Agetns with Modern Frameworks
4.1 Programming Agents
4.2 Agentic AI Stack for Telecom
4.3 Use Case: LangChain for Network Log Retrieval and Action

5. Measuring Agent Impact in Telecom Networks
5.1 Evaluating Agent Performance
5.2 Evaluating Agentic AI in Telecom Networks
5.3 Evaluating Agentic AI in Network Fault Resolution

6. Summary

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