REQUEST FOR PROPOSAL (RFP)

Industry-Ready Generative AI & AI Systems Certification

Proposed New Certification Program for Futurense

1. Executive Summary

The Artificial Intelligence (AI) industry is currently undergoing a significant transition. While traditional Machine Learning (ML) roles continue to exist, the market demand has rapidly shifted towards **Generative AI (GenAI), Large Language Models (LLMs), AI agents, and system-level AI applications**. Employers are no longer seeking candidates who only understand algorithms or can write isolated ML models. Instead, they expect professionals who can **design, build, evaluate, and deploy complete AI systems** that solve real business problems.

This Request for Proposal (RFP) proposes the launch of a new certification program titled **"Industry-Ready Generative AI & AI Systems Certification"** under Futurense. The program is designed as a **job-oriented, applied certification** that equips learners with practical GenAI system-building skills aligned with current and emerging industry roles.

The proposed certification will complement Futurense's existing offerings (BSc, diplomas, and short-term programs) and can also be positioned as a **standalone, revenue-generating program** for external learners and corporate upskilling initiatives.

2. Background and Market Context

2.1 Industry Landscape

Over the last 12–18 months, the AI ecosystem has seen rapid adoption of:

- Generative AI applications in enterprises
- LLM-powered internal tools and customer-facing systems
- Conversational AI and intelligent assistants
- AI agents for workflow automation

As a result, new job roles have emerged, including:

- Generative AI Engineer
- AI Product Engineer
- LLM Application Developer
- Conversational AI Engineer
- AI Solutions Engineer

These roles require **system-level understanding**, not just theoretical knowledge of ML algorithms.

2.2 Gap in Existing Education Offerings

Current market offerings largely fall into two categories:

1. **Theory-heavy AI programs** that lack practical system exposure
2. **Short GenAI or prompt-engineering courses** that focus narrowly on tool usage

Most programs:

- Do not teach end-to-end AI system design
- Ignore reliability, evaluation, and ethical considerations
- Fail to produce portfolio-ready, deployable projects

This creates a clear opportunity for Futurense to introduce a **well-structured, applied certification** focused on **real-world GenAI systems**.

3. Problem Statement

3.1 Learner Challenges

- Learners understand AI concepts but struggle to apply them in real systems
- Limited exposure to GenAI pipelines, data grounding, and AI workflows
- Difficulty in demonstrating job-ready skills to employers

3.2 Employer Challenges

- Candidates lack hands-on experience with LLM-based systems
- Gaps in understanding AI reliability, safety, and evaluation
- Need for professionals who can work across AI, data, and application layers

3.3 Opportunity for Futurense

Futurense is well-positioned to bridge this gap by launching a certification that:

- Focuses on **applied GenAI systems**
- Emphasizes **hands-on learning and projects**
- Aligns directly with industry job roles

4. Proposed Program Overview

Program Name

Industry-Ready Generative AI & AI Systems Certification

Duration

4–5 Months

Mode of Delivery

Online | Instructor-led | Project-based

Target Audience

- Final-year undergraduate students (BSc / BTech / equivalent)
- Recent graduates aiming for AI roles
- Working professionals (0–5 years experience) transitioning into GenAI roles

Certification

Futurense Industry Certification

5. Program Objectives

The primary objectives of this certification are to:

- Enable learners to design **end-to-end GenAI systems**
- Develop practical skills in LLM integration with real data
- Train learners in AI agent workflows and automation
- Build deployable, portfolio-ready AI applications
- Introduce responsible and reliable AI practices

6. Proposed Curriculum Structure

Module 1: Foundations of Generative AI (2 Weeks)

- Evolution of AI to Generative AI
- How Large Language Models work (applied perspective)
- Tokens, embeddings, context windows
- Limitations and failure modes of LLMs
- Industry use cases

Module 2: Data-Aware Generative AI Systems (3 Weeks)

- Retrieval-Augmented Generation (RAG)
- Working with documents, PDFs, and structured data
- Context injection strategies
- Reducing hallucinations using grounding

Module 3: AI Agents & Workflow Automation (3 Weeks)

- Introduction to AI agents
- Task decomposition and orchestration
- Multi-agent workflows

- Business and enterprise automation use cases

Module 4: Applied AI Product Development (3 Weeks)

- Converting AI systems into usable products
- Building interfaces for AI models
- Backend integration and APIs
- User feedback and system iteration

Module 5: Responsible & Reliable GenAI (2 Weeks)

- AI safety and ethical considerations
- Bias and fairness in GenAI systems
- Monitoring performance and drift
- Trustworthy AI practices

Capstone Project (4 Weeks)

Learners will build a **real-world GenAI product**, such as:

- A domain-specific AI assistant
- An internal knowledge chatbot
- A conversational AI system for business use

Projects will be evaluated based on:

- System design
- Practical functionality
- Reliability and explainability

7. Tools and Technologies Used

The following tools will be used to support learning and project development:

- **LlamaIndex** – For data-aware and RAG-based GenAI systems
- **AutoGen** – For AI agent and workflow design
- **Gradio** – For building interactive AI application demos
- **Evidently AI** – For monitoring, evaluation, and ethical AI analysis

These tools are chosen for their **industry relevance, learning clarity, and teaching convenience**.

8. Learning Outcomes

Upon successful completion of the certification, learners will be able to:

- Design and implement end-to-end GenAI systems
- Integrate LLMs with real-world data sources
- Build AI agents for task automation
- Develop deployable AI applications
- Demonstrate understanding of AI reliability and ethics
- Present portfolio-ready AI projects to employers

9. Competitive Advantage for Futurense

This certification offers several strategic advantages:

- Clear differentiation from generic GenAI courses
- Strong alignment with industry hiring needs
- High placement relevance
- Reusability across BSc, diploma, and standalone offerings

It reinforces Futurense's positioning as a **leader in applied, industry-ready AI education**.

10. Business Feasibility and Scalability

Revenue Opportunities

- Standalone certification sales
- Add-on offering for existing Futurense students
- Corporate and enterprise training programs

Scalability

- Modular curriculum allows easy updates
- Can be adapted for different learner segments
- Supports batch-based and continuous enrollment models

11. Risks and Mitigation

Risk	Mitigation Strategy
Rapid AI tool changes	Focus on concepts + adaptable tools
Learner skill diversity	Prerequisite screening and bridge modules
Market competition	Strong differentiation through system focus

12. Conclusion and Recommendation

The **Industry-Ready Generative AI & AI Systems Certification** addresses a critical and timely market need. It aligns strongly with Futurense's applied learning philosophy, strengthens employability outcomes, and opens new revenue opportunities.

Recommendation:
Proceed with pilot implementation of this certification, followed by phased scaling based on learner and placement outcomes.