Generative AI

The Generative AI module explores modern AI systems capable of generating text, images, and other creative outputs. Participants will engage with generative models to understand their capabilities, limitations, and applications. The module encourages responsible and innovative use of AI technologies.

REGISTRATION - PER TEAM MEMBER	
Early bird	Normal
PKR 500	PKR 1000
TEAM SIZE	1-3 Members

PRIZE POOL	
TOTAL - PKR 35,000	
Winner	PKR 25,000
Runner Up	PKR 10,000

Generative AI Guidelines

Competition Overview:

- Each team will be given a theme or problem statement and must design a solution that meaningfully incorporates Generative AI to address the problem.
- The solution may be a standalone AI system or integrated into an application (web, mobile, or desktop).
- The theme will be announced to all participants at the start of the competition.
- The duration of the competition is approximately 24 hours.
- Teams must bring their own machines.
- Internet access / extensions will be provided; however, participants are encouraged to bring their own internet to avoid inconvenience.
- All AI tools, APIs, and models are allowed, including but not limited to LLMs, diffusion models, speech models, and open-source frameworks.
- The organizing team reserves the right to restrict the use of specific Generative AI models, APIs, tools, or usage patterns. Any such restrictions will be announced at the start of the competition, and participants are required to comply once revealed.

Competition Rules:

- Teams may use any programming language, AI framework, or library of their choice. (Frameworks like LangChain and LangGraph are encouraged)
- Both API-based models (e.g., OpenAI, Gemini, Claude) and open-source models (e.g., LLaMA, Mistral, Stable Diffusion) are allowed, **subject to any restrictions announced at the start of the competition**
- Datasets used must be legal, ethical, and properly cited.
- Participants must be present at the time of evaluation. Failure to appear before judges will result in automatic disqualification.
- The decision of the judges will be final and non-challengeable. Arguing with the host team or judges may result in disqualification.
- All work must be original and completed exclusively by registered team members.
- Plagiarism, including copying prompts, architectures, or repositories without attribution, is strictly prohibited.
- No deadline extensions will be granted, regardless of technical issues.

Evaluation Criteria:

1. Problem Understanding & AI Fit
   - Clear identification of the problem.
   - Justification of why Generative AI is needed for the solution.
   - Appropriate selection of model(s) and approach.

2. AI System Design & Intelligence
   - Prompt engineering quality (structure, constraints, reasoning).
   - Use of pipelines (RAG, agents, tools, memory, chaining).
   - Handling of hallucinations, failure cases, and uncertainty.
   - Model orchestration or multi-step reasoning (if applicable).

3. Innovation & Creativity
   - Novelty of the idea.
   - Non-trivial use of generative models.
   - Creative combination of AI with real-world workflows.

4. Functional Completeness
   - Core AI functionality works as intended.
   - System handles edge cases gracefully.
   - Output quality is consistent and reliable.

5. Ethical & Responsible AI Use
   - Bias awareness and mitigation (where applicable).
   - Proper data usage and citations.
   - Transparency about model limitations.

6. Technical Implementation
   - Clean, modular code structure.
   - Efficient API usage or model inference.
   - Logging, error handling, and fallback mechanisms.

7. Presentation & Documentation
   - Clear explanation of system architecture.
   - README with setup instructions and usage guide.
   - Effective live demo showcasing AI capabilities.