CENTRE OF EXCELLENCE IN ARTIFICIAL INTELLIGENCE
NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

NeoHive AI Innovation Lab @NIT Calicut
Internship Applications Open

NeoHive AI Lab (a joint industry–academia initiative with **JMR Infotech**) invites applications from **NIT Calicut students across all branches** for a structured internship program focused on **AI innovations and real-world product development**. This internship program will give an opportunity for the NITC students to work on challenging AI projects and benefit from an "Earn while you Learn" model.

Why NeoHive AI Lab?

At NeoHive, you work on **live, enterprise-grade AI initiatives**—from traditional machine learning to Generative AI—aligned to JMR's product roadmap and active client programs. This is a hands-on opportunity to build applied AI skills, collaborate with industry mentors, and contribute to solutions that matter.

Internship Focus Areas

Selected interns may work on one or more of the following (based on aptitude and interest):

- **Applied Machine Learning:** supervised/unsupervised learning, feature engineering, model evaluation, optimization, building solutions using computer vision and applying improvements
- **Generative AI & LLM Applications:** prompt engineering, RAG (Retrieval Augmented Generation), embeddings & reranking, document intelligence, and **multi-agent workflows**
- **Agentic AI & Multi-Agent Systems:** orchestration patterns, agent tools/memory, evaluation, and **enterprise-grade multi-agent solutions** (task automation, research, document processing, and operations)
- **MCP & Tool Integration:** building AI agents that use tools via **Model Context Protocol (MCP)**, integrating internal/external systems, secure tool access, and structured function/tool calling
- **AI Engineering & MLOps:** model deployment, monitoring, experiment tracking, CI/CD for ML, performance optimization, and responsible AI guardrails

- **AI Solution Building:** API development, integration with enterprise systems, scalable pipelines, governance-ready design, and production hardening
- **AR/VR & Immersive Solutions (where applicable):** immersive interfaces for AI assistants, interactive simulations, computer vision + spatial experiences, and applied AR/VR prototypes
- **Domain Use Cases:** banking & financial services automation, compliance support, risk insights, knowledge assistants, and operations optimization

Who Can Apply?

Open to NITC students from ALL branches

We value strong problem-solving and engineering mindset— Branch of study is not a barrier.

Minimum Expectations

- Strong fundamentals in programming and logical reasoning
- Good experience with Python (preferred) or Java / C++
- Basic understanding of data structures, probability/statistics, and ML basics
- Interest in AI/GenAI and building real, purpose-oriented deployable software

Good-to-Have Skills

- Exposure to PyTorch/TensorFlow or alternatives like Keras – to implement/train models, data pre-processing, model evaluation etc.; plus Hugging Face Transformers for LLM work and ONNX Runtime/vLLM for inference/serving.
- Exposure to LLMs (GPT, Claude, Gemini, Llama, etc.), RAG, embeddings, vector databases
- Experience with Git, APIs (FastAPI/Flask), Docker, cloud basics

Selection Process

1. Shortlisting will be based on academic consistency (CGPA and/or relevant coursework) and prior project work (if any)
2. Written Test (aptitude + programming fundamentals + basic ML/GenAI awareness)

3. Practical Problem-Solving Challenge (Build Round) — a time-boxed exercise to design and build a small working software solution (e.g., API/service, data pipeline, or mini GenAI app) with basic documentation and a brief demo
4. Technical Interview / Review Round — discussion of the build submission, code quality, approach, trade-offs, and fitment to focus areas
5. Final confirmation and onboarding

Internship Structure

- **Induction & Bootcamp:** fundamentals + tools + lab practices
- **Mentored Project Work:** agile sprints, weekly reviews, measurable deliverables
- **Showcase:** final demo/presentation and performance assessment
  (*High performers may receive opportunities for extended engagement aligned to ongoing projects (subject to performance and program needs*).

- **On Campus internship**: The selected interns will be working basically from the NeoHive AI Innovation Lab, which is located in the Centre of Excellence of Artificial Intelligence (CoE-AI), 2nd Floor of the New Library Building.

Stipend

The period of this on campus internship will be initially for a period of six months. The internship period can be extended further based on performance. JMR Infotech will be providing monthly stipend for all the selected interns.

How to Apply

- ✓ **Get the following items ready.**
  - Latest CV in PDF or Word format
  - Short statement of interest (max 200 words) describing why you want to join NeoHive AI Lab
  - Links (optional): GitHub / portfolio / project demos
- ✓ **Use the Application Link given here to apply:**
  https://forms.gle/wJ6FEuaVMjusBjaU6
- ✓ **Last Date to Apply:** *4st February 2026*
- ✓ **Internship Start Date:** *16th February 2026 (tentatively)*

For queries: *write to neohive.jmr.nitc@gmail.com*