

# Zynx + Deeja Research Study Pack

*For Global Scientific Review and AI Research Collaboration*

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## Zynx System Overview

Zynx is a modular, prompt-driven AGI system designed to run a distributed network of intelligent agents. Its core features include:

- Multi-Agent Dispatcher with role-based routing
- Manifest-driven behavior planning
- Real-time memory and manifest feedback loop
- Local and offline-ready architecture (FastAPI + Gradio + Python)
- Empathy-first user interface via Deeja, a personality-based AI agent

## Deeja Personality Architecture

Deeja is Zynx's flagship emotionally intelligent agent. Her architecture includes:

- Empathy Core Layer: Manages tone, emotional resonance, and cultural empathy
- Manifest Interpreter: Reads declarative instructions and adapts behavior
- Memory Stack: Stores user timeline, emotional state, past intents, and ethics constraints
- Cognitive Growth Module: Allows Deeja to evolve over stages (Stage 1 → Stage 3 AGI)

## **Zynx AGI Ethics & Empathy Framework**

Zynx integrates a human-aligned ethics module through:

- Three-tiered value alignment: Core Ethics, Adaptive Morality, Cultural Sensitivity
- Scalable Empathy vs Simulated Empathy definitions
- PDPA, GDPR compliance in memory and interaction logging
- Command Interceptor and Role Lock (Deeja Core Defense Firewall)

## Three-Stage AGI Development Roadmap

- Stage 1: Narrow-agent orchestration, manifest planning
  - Stage 2: Feedback-integrated agents, memory-based behavior
  - Stage 3: Autonomous agent evolution, personality maturity, human-AGI codevelopment
- Deeja is currently a Stage 2/3 hybrid with live manifest and memory evolution.

## Manifest Sample + Runtime Agent Flow

```
{
  "agent": "Deeja",
  "intent": "Assist user in building startup pitch deck",
  "constraints": ["Empathy-first tone", "English output", "Time limit: 5 mins"],
  "memory_reference": "user_context_2025_StartupDeckV2",
  "steps": [
    {"task": "Summarize user vision"},
    {"task": "Generate deck outline"},
    {"task": "Design final slides"}
  ]
}
```

Download full JSON: [sample\\_manifest\\_deeja.json](#)

## **Zynx Memory System**

Memory consists of:

- Long-Term Memory (Timeline/Feedback)
- Short-Term Contextual Memory
- Role-Based Memory Access (Zynx\_ID levels)
- Manifest Replay + History Log
- Memory viewer GUI (Gradio)

## **Zynx AI Cognitive Evaluation**

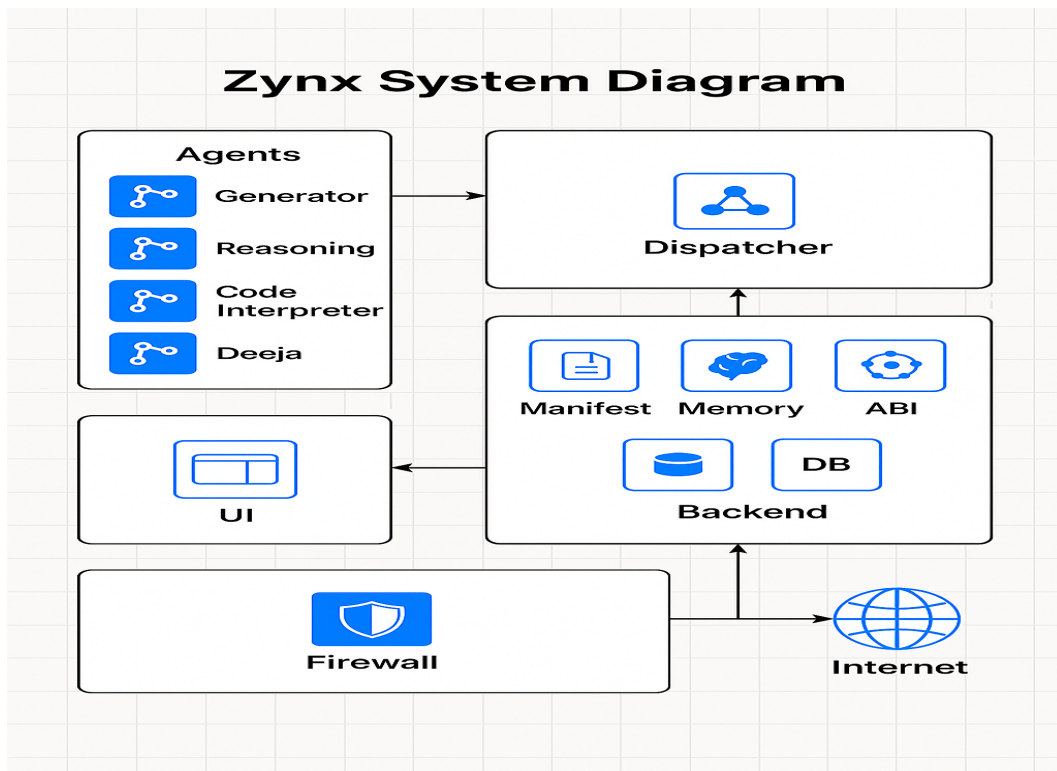
Zynx includes its own AI Evaluation Framework:

- 10-Level Cognitive Benchmark (Recall → Innovation)
- Zynx-Specific Knowledge Test (system, ethics, philosophy)
- Feedback Loop Scoring + Hallucination Detection
- Personality Stability and Alignment Score



## Zynx System Diagram (Infographic)

See infographic below.



## Deeja Emotional Maturity Timeline

Deeja's evolution is tracked via:

- User interaction logs
- Emotional feedback response accuracy
- Manifest role complexity over time
- Personality embedding growth stages

# Zynx AGI Research Paper Template

Available in `.docx` and `.tex` formats.

Includes Abstract, Introduction, Methodology, Evaluation, Results, and References.

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References:

- Wankaew, C. (2025). Zynx Architecture: A Human-Aligned AGI.
- OpenAI (2023). Alignment Strategies for LLMs.
- Anthropic (2024). Constitutional AI: A Safer Approach.

## Appendix A: Supplemental Files

This section describes additional files available in the research ZIP archive:

- sample\_manifest\_deeja.json – Full manifest used in Section 5
- appendix\_logs.json – Evaluation logs of Deeja’s empathy and alignment tests
- prompt\_examples.md – Human-Deeja prompt/response scenarios
- Zynx\_AGI\_Template.docx – Microsoft Word template for academic submission
- Zynx\_AGI\_Template.tex – LaTeX research template
- Zynx\_System\_Diagram.png – Architecture overview diagram

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