



PRAGATI ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF CSE (DATA SCIENCE)

Date: 10-08-2025

A Report on "National - Level Faculty Development Program (FDP) on Generative - AI"

As part of the technical activities under the **Society for Data Science – Faculty Development Program** of the Department of CSE (Data Science), this event was conducted.

Name of the Event	: National-Level Faculty Development Program (FDP)
Title of the Event (Topic)	: Generative - AI
Chief Guest of the Event	: Dr. Gundala Nagaraju Sir
Speaker (Resource Person) of the Event:	Mr. Dinesh Kumar Balki
Date of the Event	: 04-08-2025 To 08-08-2025
Time of the Event	: 7:00 PM To 8:00 PM
Venue of the Event	: Virtual /Online Mode

The Faculty Development Program (FDP) on Generative AI, jointly organized by Brainovision Solutions, AICTE, and 130+ host colleges, brought together over 5,000 faculty members nationwide. The program aimed to equip educators and researchers with practical knowledge of Generative AI tools, applications, and ethical considerations.

A total of 24 Faculties were attended this event. All the Faculties have actively participated in the event.

Brief write-up of the event:

The 5-day **National-Level FDP on Generative AI** is a specialized training program designed to empower faculty members with the latest advancements in **Generative Artificial Intelligence**. The program introduces participants to powerful AI tools and platforms such as **ChatGPT, DALL·E, Leonardo.AI**, and more, focusing on their applications in **teaching, research, and content creation**.

Over the course of the program, educators learn how to:

- Integrate generative AI in curriculum design and delivery.
- Automate assessments and generate academic content.
- Create visually engaging materials using AI image-generation tools.
- Develop AI-assisted research posters and summaries.



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Organized by **Brain O Vision**, this FDP promotes digital innovation and equips educators with hands-on skills to stay ahead in the evolving landscape of AI-driven education.

DAY-BY-DAY SUMMARY:

Day 1: Foundations of Generative AI

Generative AI creates new content – Text, images, audio, video and code by learning from the data

Core technologies:

- AI: Mimics human intelligence.
- ML: Learns from data with training/testing.
- DL: Neural networks for complex recognition.
- LLMs: Transformer-based models for text generation, summarization, translation, and coding

Link: <https://youtu.be/5a0UpcoiYz8>

Day 2: Tools and Applications

- Text Tools: ChatGPT, Claude, Gemini, Perplexity, LLaMA.
- Image Tools: MidJourney, Leonardo AI, DALL-E, Microsoft Copilot.
- Audio/Video Tools: 11 Labs, Play.ai, Lumen5, Synthesia.
- Productivity & Research Tools: Notion AI, Google NotebookLM, ClickUp, Gamma.app for presentations.
- OpenRouter.ai: Hub of 476+ AI models, offering both free and paid APIs.

Applications highlighted:

- Fraud detection, predictive analytics, RPA workflows.
- Academic use cases: quizzes, assignments, research posters, video lectures, and lesson planning.

Link: <https://youtu.be/Ce8T7h7yhys?list=PLuFcjbzE0YknpRijh8-d547beflWmp680>

Day 3: Educator Workflows

- Content Creation: Use ChatGPT to summarize topics and generate questions.
- Presentations: Convert summaries into slides using Gamma.app.
- Videos: Use Lumen5 to generate professional explainer videos.
- Posters: Combine image tools with ChatGPT for research posters.

Link: https://youtu.be/8xJOCVq_2MU?list=PLuFcjbzE0YknpRijh8-d547beflWmp680

Day 4: Technical Training

- Prompt Engineering: Emphasized clarity, context, examples, and control techniques.
- ChatGPT-5 Demonstration: Showcased speed, efficiency, and “deep research” features.



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- Hands-on Coding:

- Google Colab for running Python code.
- Hugging Face's transformers for text summarization.

- No-Code Alternatives: Poe.com for building simple AI bots.

Link: <https://youtu.be/wPVDTdsTpNA?list=PLuFcjbzE0YknpRijh8-d547beflWmp680>

Day 5: Ethics and Governance

Chief Guest Dr. Gundala Nagaraju Sir stressed:

- Domain expertise (80%) is more important than the AI tool (20%).
- Responsible AI use and ISO 42001 compliance.
- Risks of bias, discrimination, and the "black box" problem.
- Recommendation: use AI for internal efficiencies, and ensure transparent business rules for customer-facing applications.

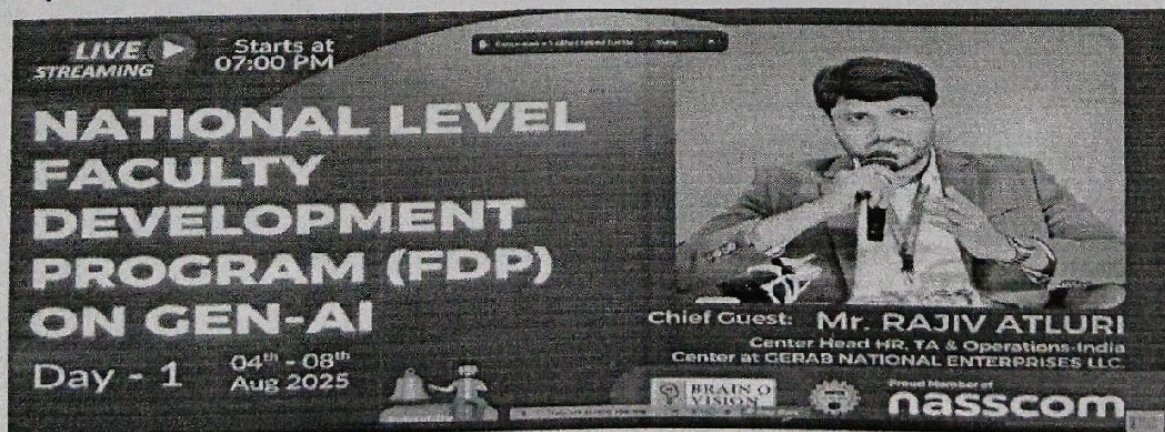
Link: <https://youtu.be/EEFw602NMao?list=PLuFcjbzE0YknpRijh8-d547beflWmp680>

HIGHLIGHTS AND KEY TAKEAWAYS:

1. Generative AI is transforming academia, research, and industry with tools across text, image, audio, and video.
2. Educators can integrate AI into teaching workflows to create summaries, slides, videos, and research posters efficiently.
3. Technical sessions bridged the gap between using AI tools and building AI applications, making coding accessible to all.
4. Ethical implementation and governance are critical for sustainable adoption of AI technologies.

PHOTOGRAPHS FROM THE EVENT:

Day 1: Introduction to AI, AI-Agent and AI-Generalist





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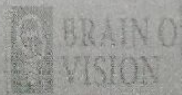
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EMPOWERING ACADEMICS WITH GENERATIVE AI

Empowering Innovation with AI Tools, Techniques,
and Research Possibilities

1 Week Master Program on GENERATIVE AI

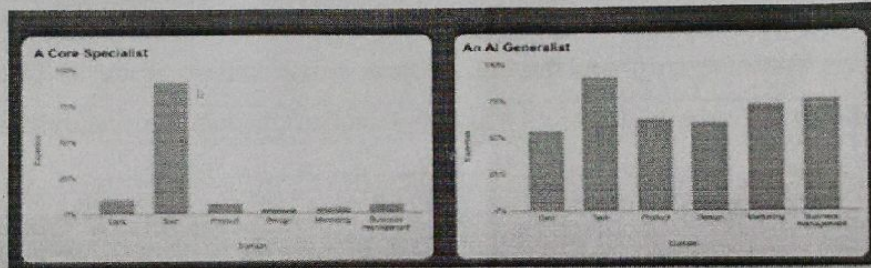


HISTORY OF INTERNET, AI & GEN AI

Before the Internet
Knowledge was compartmentalized

After the Internet
Knowledge was democratized

After GenAI
Much AI intelligence has been democratized



From Delicate Chiselwork to everyone
Very intelligent and versatile

This presentation is highlighting how **Generative AI is the next major leap**—just like the internet democratized information, generative AI is democratizing **intelligence and creativity**, making it a powerful tool for **academics, researchers, and educators**.

Day 2: Tools and Applications

LIVE STREAMING

Starts at 9:00 AM Sat. 12th August 2023

**NATIONAL LEVEL
FACULTY DEVELOPMENT PROGRAM
FDP - ON GEN-AI**

Day - 2 04th - 08th Aug 2023

BRAIN O VISION

nasscom

ChatGPT SORA ElevenLabs Pika

Claude Midjourney AudioPen Synthesia

perplexity Runway PLAY.AI lumen5

Gemini DALL-E VOICEMOD

Grok Leonardo.AI AIVA Colossyan

MISTRAL AI stability.ai descript DEEPBRAIN AI

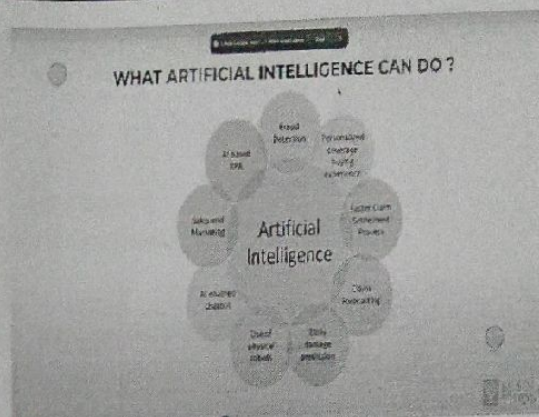
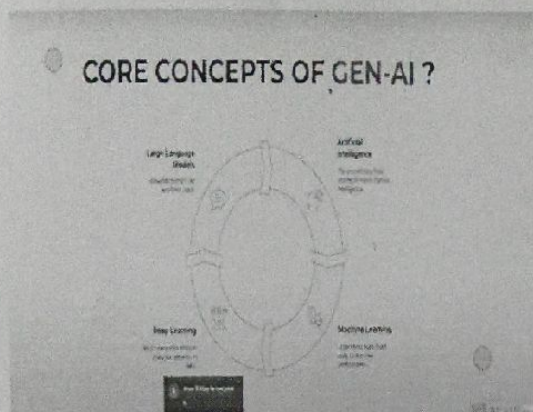
Lambda WOMBO Speechify Hour One



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It emphasizes that **Generative AI** is built on decades of advancement in AI, ML, DL, and **language models**. The current ecosystem offers **powerful tools** (ChatGPT, Midjourney, Synthesia, etc.) that empower users to create content, automate tasks, and solve real-world problems.

The real-world impact is evident across **multiple industries**—from personalized customer service to fraud detection and robotic automation—making AI a transformative force in both business and academia.

Day 3: Educator Workflows

ChatGPT - Summarize "Semiconductor Diodes" in 5 points for 2nd-year ECE.

Here's a concise 5-point summary of Semiconductor Diodes tailored for 2nd-year ECE students:

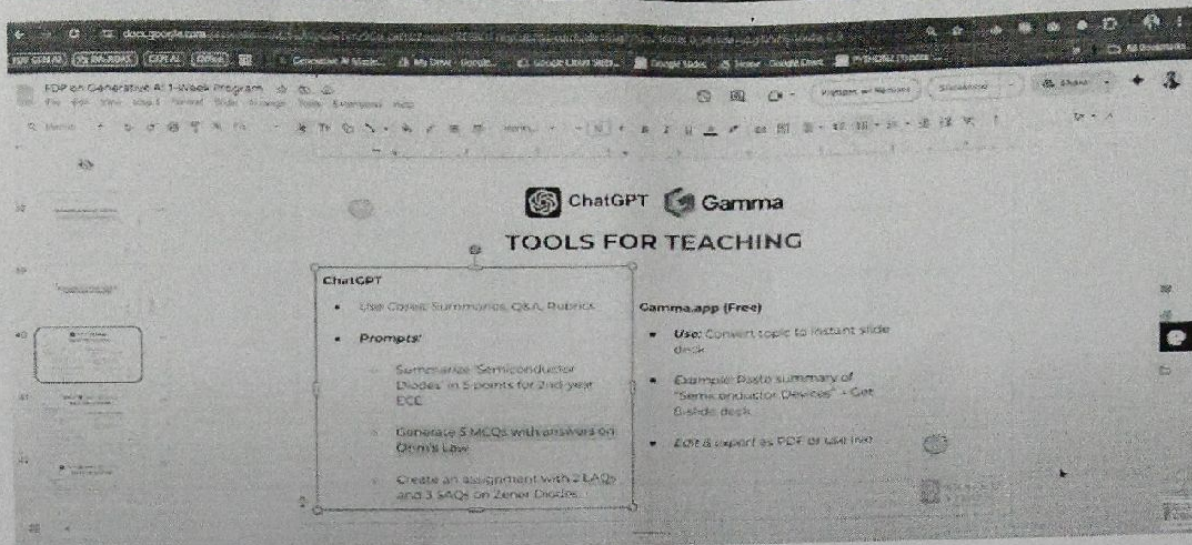
- 1. Basic Structure & Operation**
A semiconductor diode is a two-terminal device made from a P-N junction. It allows current flow only in one direction (forward-biased) and blocks it in the reverse direction (reverse-biased), making it essential for rectification.
- 2. V-I Characteristics**
The diode's voltage-current characteristics are nonlinear. In forward bias, current increases exponentially after the cut-in voltage (~0.7V for Si, ~0.3V for Ge). In reverse bias, a small leakage current flows until breakdown voltage is reached.
- 3. Types of Diodes**
Common types include:
 - **Zener Diode** - used for voltage regulation.
 - **Schottky Diode** - fast switching, low forward voltage.
 - **Light Emitting Diode (LED)** - emits light when forward-biased.
 - **Photodiode** - generates current under light exposure.



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It shows the practical examples of how educators can leverage **Generative AI** tools like **ChatGPT** and **Gamma.app** for academic tasks such as creating summaries, MCQs, and presentations. The focus is on making teaching **faster, easier, and more interactive** using AI — especially in technical education.


Day 4: Technical Training

AI IMAGE GENERATION TOOLS

Tools:

- **Leonardo.AI (Free/Pro)** – High-quality illustrations, concept designs
- **Bing Image Creator (DALL-E)** – Fast & simple, great for lecture visuals
- **DALL-E via ChatGPT** – Generate images with prompts directly from ChatGPT interface

**Leonardo.AI****Microsoft BING IMAGE CREATOR****DALL-E**





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GENERATE RESEARCH POSTER & SUMMARY

- Use Leonardo.AI to generate a background image on "Sustainable Smart Farming"
- Use ChatGPT or Notion AI to write the content blocks
- Combine Using ChatGPT image or Copilot to create a full AI-generated research poster

Leonardo.AI DALL·E Copilot

This session shows how AI tools like **Leonardo.AI**, **DALL·E**, and **Copilot** can help educators and researchers create stunning **visual content**, **lecture materials**, and **academic posters** efficiently. With tools available both freely and in pro versions, this approach democratizes design and content creation, even for non-designers.

Day 5: Final Projects & Closing Remarks

The top part of the screenshot shows a presentation slide titled "Introducing GPT-5" with a list of features. The bottom part shows two video feeds: a man on the left and a woman on the right, both wearing lanyards.



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The latest advancement in generative AI via ChatGPT, emphasizing how GPT-5 improves user experience for educators, students, and professionals through better accuracy, speed, and usability.

Participants List:

S. No	Name of faculty	Faculty Associated College Name	Department	Location
1	Gowri Sree Lakshmi Neeli	Aditya University	Master of Computer Applications	Andhra Pradesh
2	Bomma Bharath Kumar	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
3	Banoth Harikrishna	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
4	P Ram Prasad	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
5	N Raghuveer	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
6	Anusuri Phani Bhaskar	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
7	V V N Sarath	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
8	P Gayathri	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
9	Kada Tulasi	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
10	Kada Tulasi	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
11	Anusuri Phani Bhaskar	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
12	N V S Sowjanya	Pragati Engineering College	CSE (Data Science)	Andhra Pradesh
13	Nikhitha Nuvvula	Pragati Engineering College	CSE-DS	Andhra Pradesh
14	Bhukya Janu Naik	Pragati Engineering College	CSE (Data Science)	Andhra Pradesh
15	Kotteti Santosh Rupa Manjusha	Pragati Engineering College	Computer Science Engineering	Andhra Pradesh
16	Dr A. Radha Krishna	Pragati Engineering College	Computer Science Engineering	Andhra Pradesh
17	Madhu K	CJITS	Mechanical Engineering	Telangana
18	P V V Ramana	Pragati Engineering College	Electrical And Electronics Engineering	Andhra Pradesh
19	V V N Sarath	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
20	Vadhi Radhika	Pragati Engineering College, Surampalem	Electronics & Communication Engineering	Andhra Pradesh



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21	Banoth Harikrishna	Pragati Engineering College	Mechanical Engineering	Andhra Pradesh
22	Radhika Vadhi	Pragati Engineering College, Surampalem	Electronics & Communication Engineering	Andhra Pradesh
23	G Sivakumar	PSN College Of Engineering and Technology	Computer Science Engineering	Tamil Nadu
24	D S V Prasad Uppalapati	Sasi Institute of Technology And Engineering	Computer Science Engineering	Andhra Pradesh

B. Janu Naik

Faculty Co-Ordinator

M V Rajesh

HoD- CSE (Data Science)

