REPORT

PRAGATI ENGINEERING COLLEGE

(ApprovedbyAICTE,PermanentlyAffiliatedtoJNTUK,KAKINADA&AccreditedbyNBA)

1-378,A.D.B.Road,Surampalem,NearPeddapuram-533437

"Intelligent Machines: NLP Meets Robotics"

Date: 24-7-2025

Day: Thursday

Turing Club organised by the Dept. of CSE – AI&ML of Pragati Engineering College in association with Career Guidance Cell is organizing a seminar on " Intelligent Machines: NLP Meets Robotics " as part of Industry 4.0.

Attendance list :

S.NO	ROLL NUMBER	NAME
1.	23A31A4203	DARSI SAHITHYA
2.	23A31A4298	ALLEN BRIGHTON BASCOM
3.	23A31A4299	AVASARALA SHANMUKH VENKATA SAI RAM
4.	23A31A42A0	BAGADI RAJESH
5.	23A31A42A1	CHODAPANEEDI VENKATA SAI RAM
6.	23A31A42A2	DASARI AJAY KUMAR
7.	23A31A42A3	DEGALA NARAYAN KARTHEEK
8.	23A31A4204	DEVARAPALLI HEMA SURYA SAHITYA
9.	23A31A42D9	DUDALA SRIYA
10.	23A31A42E0	GANTA NAGA ANUSHA
11.	23A31A4205	GUTTULA AMRUTHA NOOKAMBIKA
12.	23A31A4206	ILLA LAKSHMI SIRI SIVA SAI CHANDANA
13.	23A31A42E1	KADALI SRUJANA
14.	23A31A4207	KAMIDI LALITHA KUMARI
15.	23A31A42E2	KATTA ANJANI SURYA PRABHA
16.	23A31A4208	KEDASI ROSHINI
17.	23A31A4209	KOLA SRI VANAJA GEETHA
18.	23A31A42E3	KOLLI NAVYA JYOTHI
19.	23A31A42E4	KONDEPUDI MANASA
20.	23A31A4210	KOPPANA MONIKA SREE BALA
21.	23A31A4211	KOPPISETTI SRIJA
22.	23A31A4212	KORIBILLI BHAVYA SRI
23.	23A31A42E5	KORUKONDA LAKSHMI PAVITHRA
24.	23A31A4213	KOTHAPALLI SAI ROHINI

25.	23A31A4214	KOTTAPALLI PUJA
26.	23A31A42E6	KOVVURI HARSHA MADHURI REDDY
27.	23A31A4215	MADDUKURI SRILAYA
28.	23A31A42E7	MANIVISETTI LAKSHMI SRI
29.	23A31A42E8	MONDI KOUSALYA
30.	23A31A42E9	NALLAMILLI DHANYA RADHIKA
31.	23A31A42F0	PIDITHI BHAVYA PREM AGNES
32.	23A31A4292	TADI SHAINY
33.	23A31A42I9	TADIMALLA S V P K SRI SATHVIK
34.	23A31A4293	TALLA LEELA NAGA SRI DURGA
35.	23A31A4294	TANNEERU KAVYA VENKATA SRI
36.	23A31A42J0	TEKU SYAM KUMAR
37.	23A31A4295	THELLAMEKALA RENUKA DEVI
38.	23A31A4296	THOTA SANTHI
39.	23A31A4297	TUMMALAPALLI BHAVYA
40.	23A31A42J1	UDAY KUMAR LALAN DIWAKAR
41.	23A31A42J2	VADAPALLI ADITYA VARDHAN
42.	23A31A42J3	VANGALAPUDI SATISH PREETHAM
43.	23A31A42J4	VENTU VENKATA MURALI KRISHNA
44.	23A31A42J5	YADLAPALLI LALITHADITYA
45.	23A31A4203	DARSI SAHITHYA
46.	23A31A4298	ALLEN BRIGHTON BASCOM
47.	23A31A4299	AVASARALA SHANMUKH VENKATA SAI RAM
48.	23A31A42A0	BAGADI RAJESH
49.	23A31A42A1	CHODAPANEEDI VENKATA SAI RAM

FEED BACK ANALYSIS

ID	Name	ROLL NUMBER	speaker communication	CONTENT DELIVERY
1.	DARSI SAHITHYA	23A31A4203	5	4
2.	DEVARAPALLI HEMA SURYA SAHITYA	23A31A4204	5	5
3.	KEDASI ROSHINI	23A31A4208	5	5
4.	KOLA SRI VANAJA GEETHA	23A31A4209	4	4
5.	KOPPANA MONIKA SREE BALA	23A31A4210	2	2
6.	KOPPISETTI SRIJA	23A31A4211	4	4
7.	KORIBILLI BHAVYA SRI	23A31A4212	5	5
8.	KOTHAPALLI SAI ROHINI	23A31A4213	4	5
9.	KOTTAPALLI PUJA	23A31A4214	5	4
10.	MADDUKURI SRILAYA	23A31A4215	5	5
11.	TADI SHAINY	23A31A4292	5	5
12.	TALLA LEELA NAGA SRI DURGA	23A31A4293	4	4
13.	TANNEERU KAVYA VENKATA SRI	23A31A4294	5	5
14.	THELLAMEKALA RENUKA DEVI	23A31A4295	4	4
15.	THOTA SANTHI	23A31A4296	5	5
16.	TUMMALAPALLI BHAVYA	23A31A4297	5	5
17.	ALLEN BRIGHTON BASCOM	23A31A4298	4	4
18.	AVASARALA SHANMUKH VENKATA SAI RAM	23A31A4299	5	5

19.	BAGADI RAJESH	23A31A42A0	4	4
20.	CHODAPANEEDI VENKATA SAI RAM	23A31A42A1	5	5
21.	DASARI AJAY KUMAR	23A31A42A2	5	5
22.	DEGALA NARAYAN KARTHEEK	23A31A42A3	5	5
23.	DUDALA SRIYA	23A31A42D9	5	5
24.	GANTA NAGA ANUSHA	23A31A42E0	5	5
25.	KADALI SRUJANA	23A31A42E1	5	5

Overall rating: **Very Good**

Content Delivered in the Event:

The convergence of **Natural Language Processing (NLP)** and **Robotics** is revolutionizing the way machines understand, interact, and operate in the real world. This seminar explores how **intelligent robots**, such as **voice-operated drones**, are transforming environmental monitoring by combining **language understanding** and **autonomous decision-making**.

We will dive into the basics of NLP, explore its integration in robotics, and illustrate the synergy using a real-world example:

Introduction to Intelligent Machines

- Definition of intelligent machines
- Role of AI, ML, and robotics
- Motivation: Why integrate NLP with robotics?

Basics of NLP (Natural Language Processing)

- What is NLP?
- Common tasks: speech recognition, intent detection, NLU (Natural Language Understanding)
- Text vs. voice interfaces
- Real-world examples: Alexa, Siri, chatbots

Merging NLP with Robotics

- How NLP commands translate into robotic actions
- Voice command pipeline:
    1. **Speech to Text** (using libraries like Google STT, Whisper)
    2. **Intent Detection** (e.g., “Scan Area” → flying mode)
    3. **Action Mapping** (drone navigates and performs task)

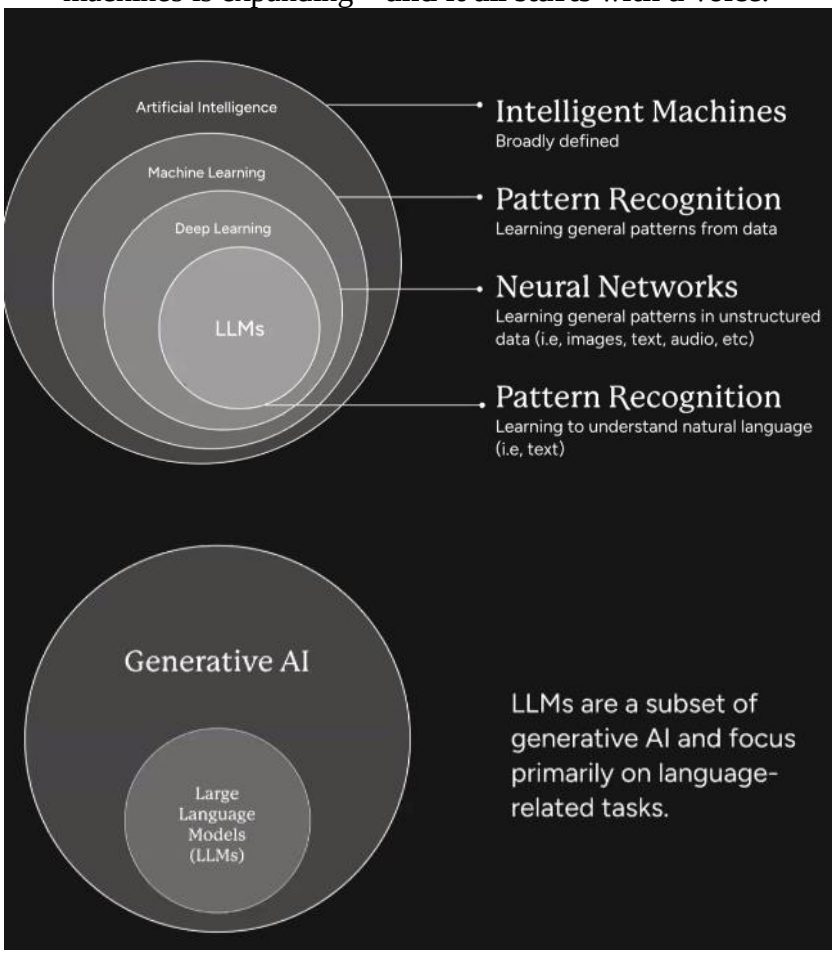
- Command examples:
  - *"Start scanning the left area."*
  - *"Count tall plants only."*
  - *"Return to base."*

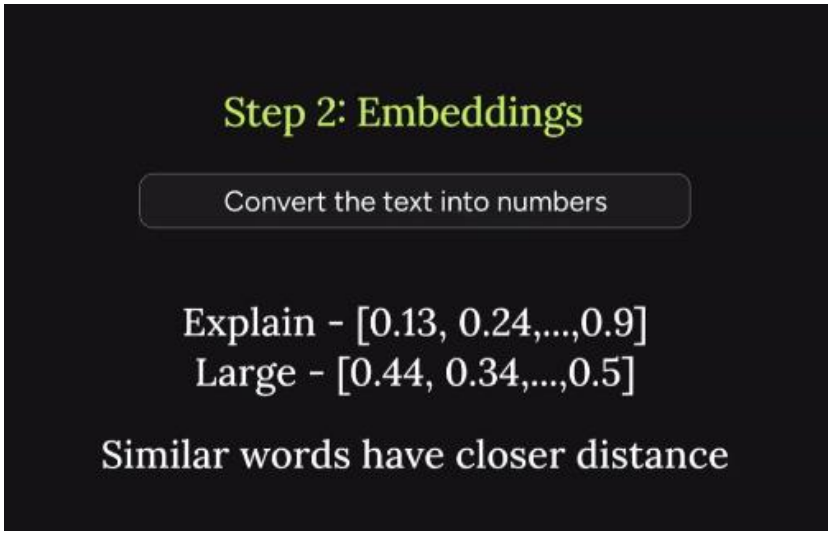
Case Study: Drone for Forest Plant Counting via Voice

- **Goal:** Count plant density and type in specific forest areas
- **Hardware:** Autonomous drone with onboard camera + mic
- **NLP Feature:** Takes voice input from forest rangers
- **Steps:**
  - Ranger says: *"Count tall plants in zone 3."*
  - NLP interprets → Command mapped → Drone flies to zone 3
  - Uses computer vision to detect and count plant types
  - Summarizes results via speech or display

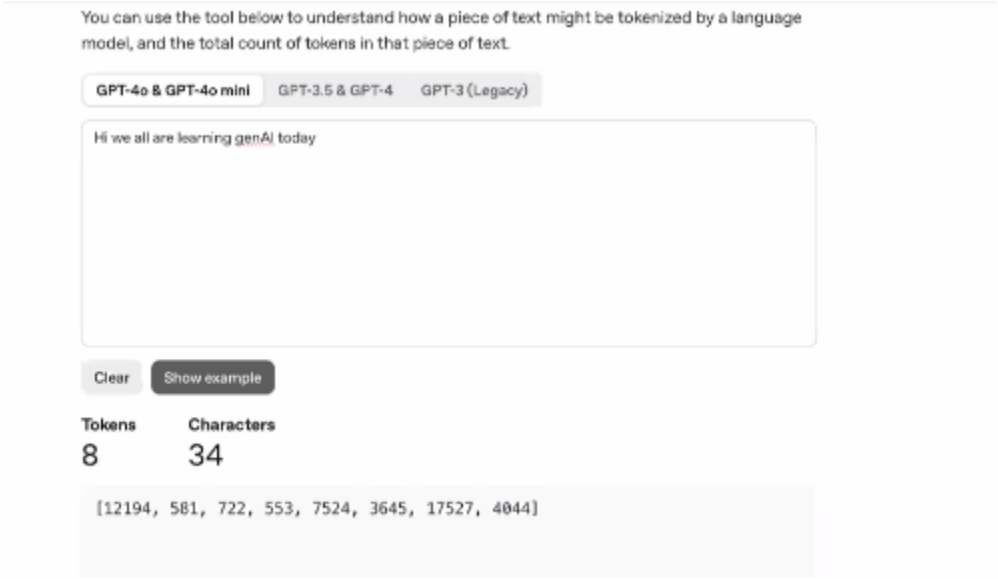
Conclusion

The seminar concludes by highlighting how **language and robotics** together build smarter, more interactive, and socially useful AI systems. From smart homes to wild forests, the reach of intelligent machines is expanding—**and it all starts with a voice**.



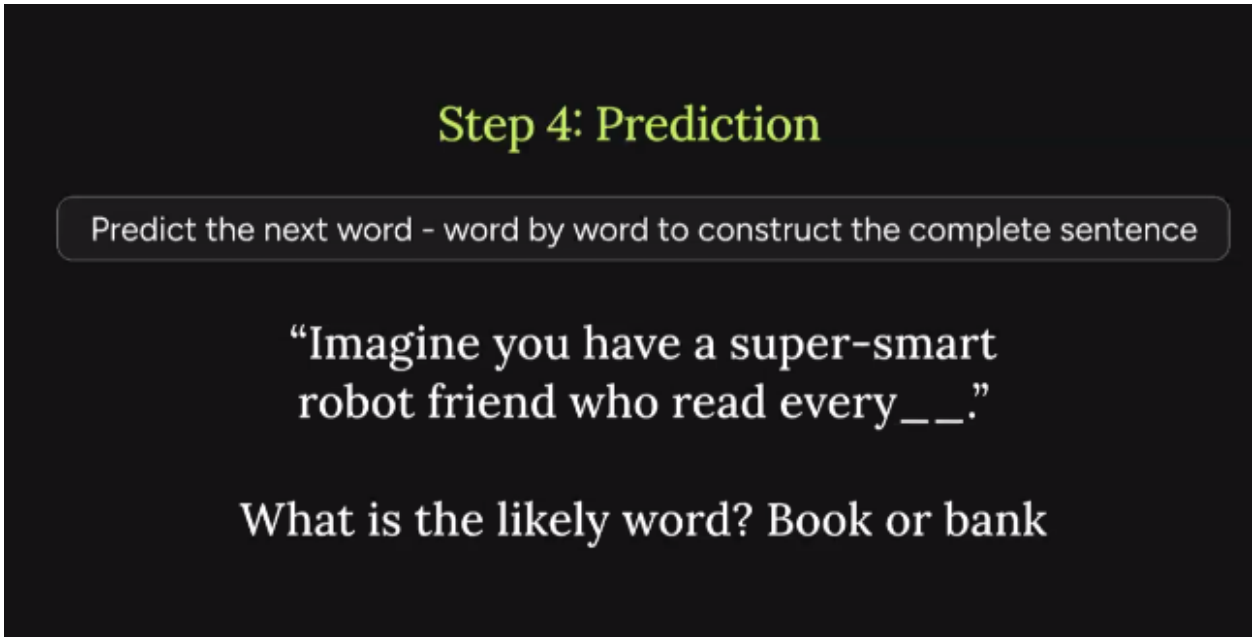


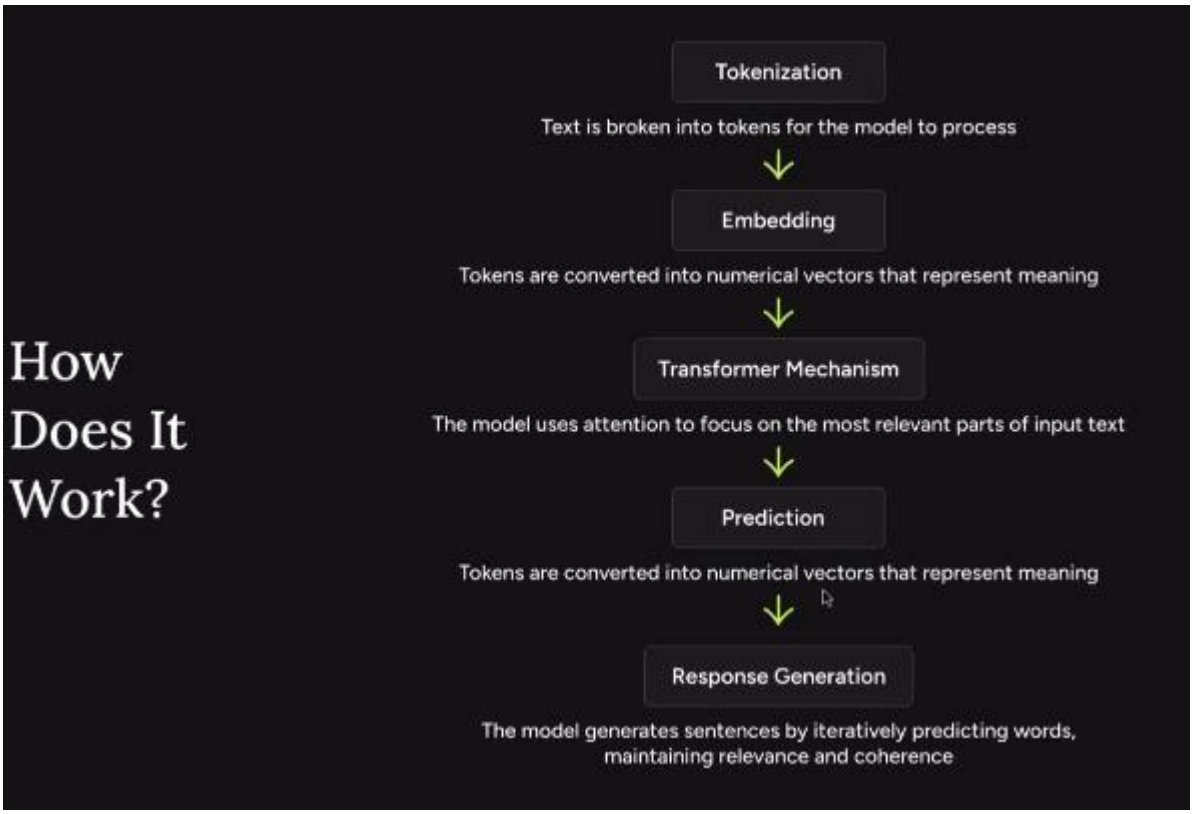
https://projector.tensorflow.org/

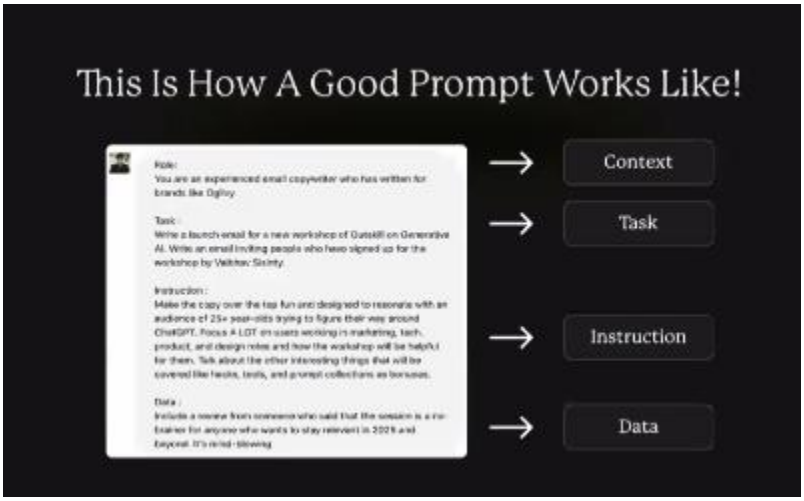


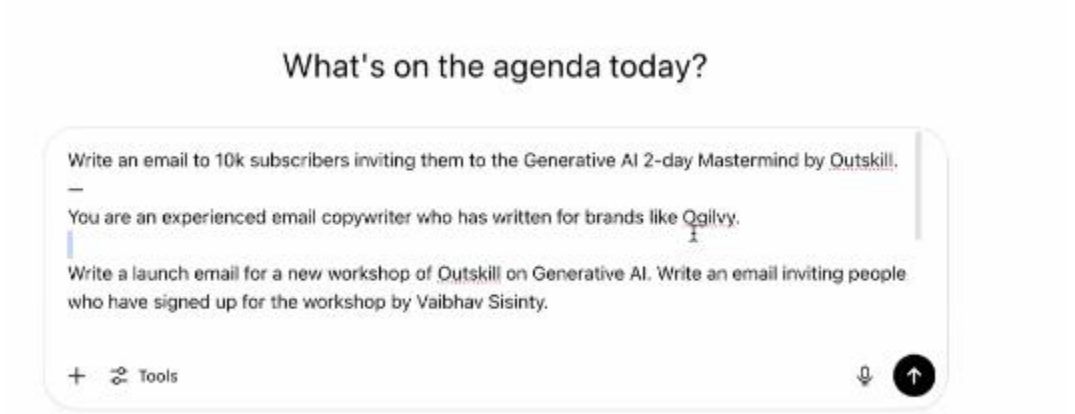
STEP 3.SELF ATTENTION

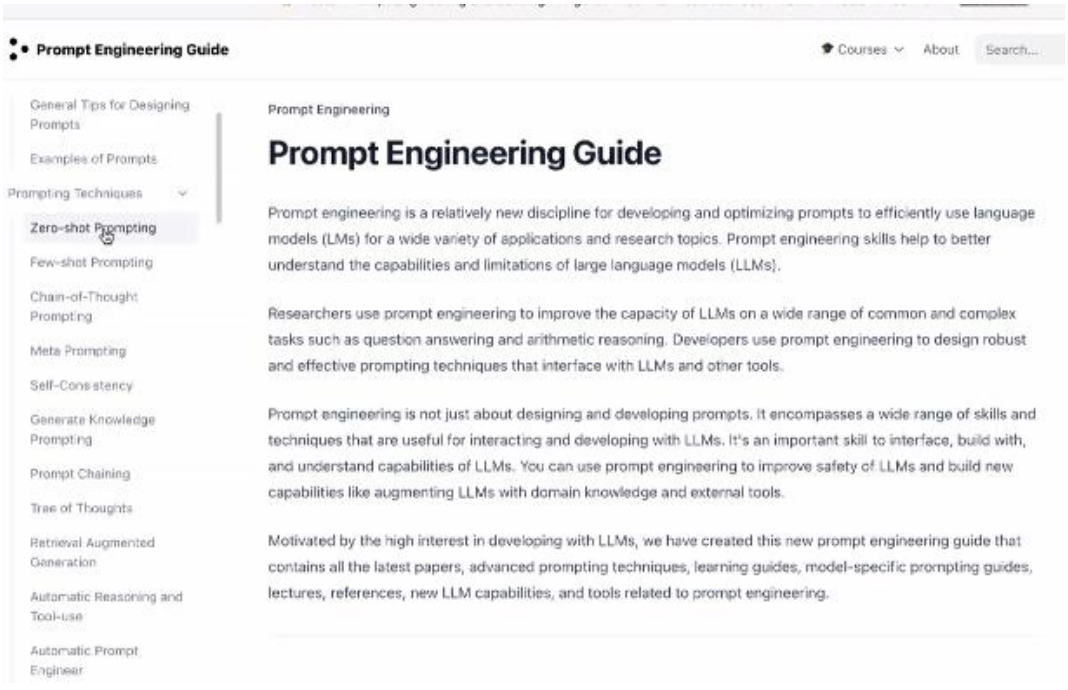
Five year or well educated



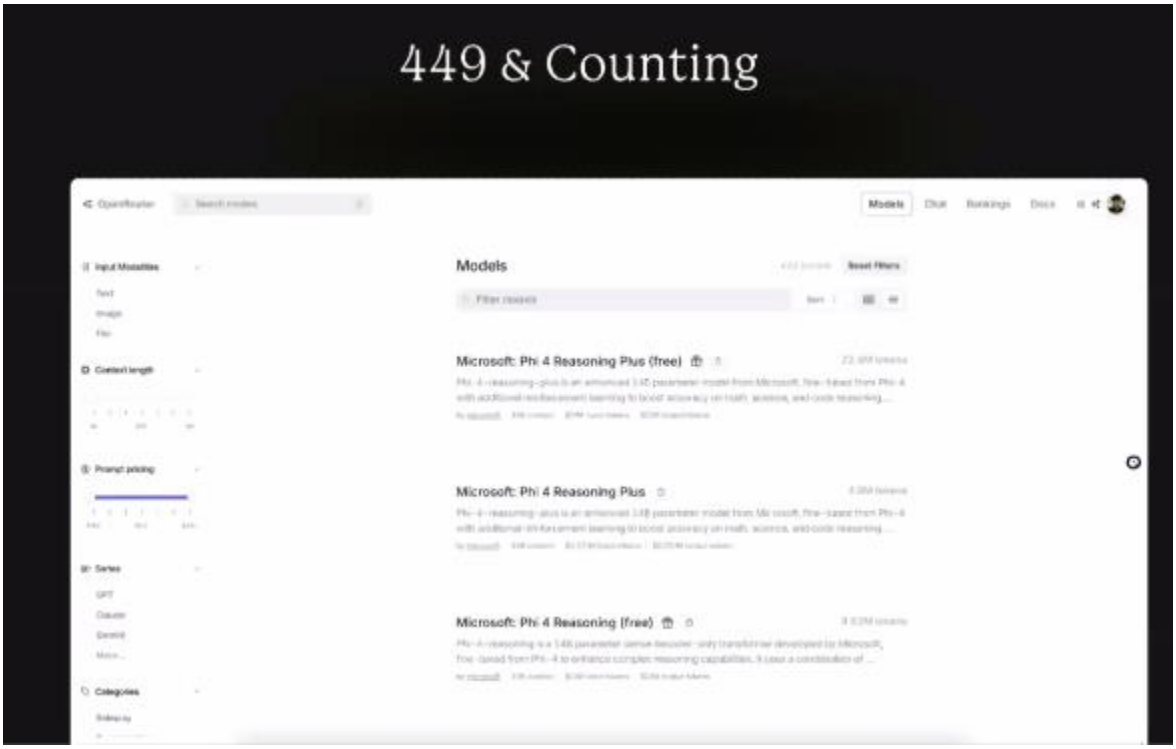


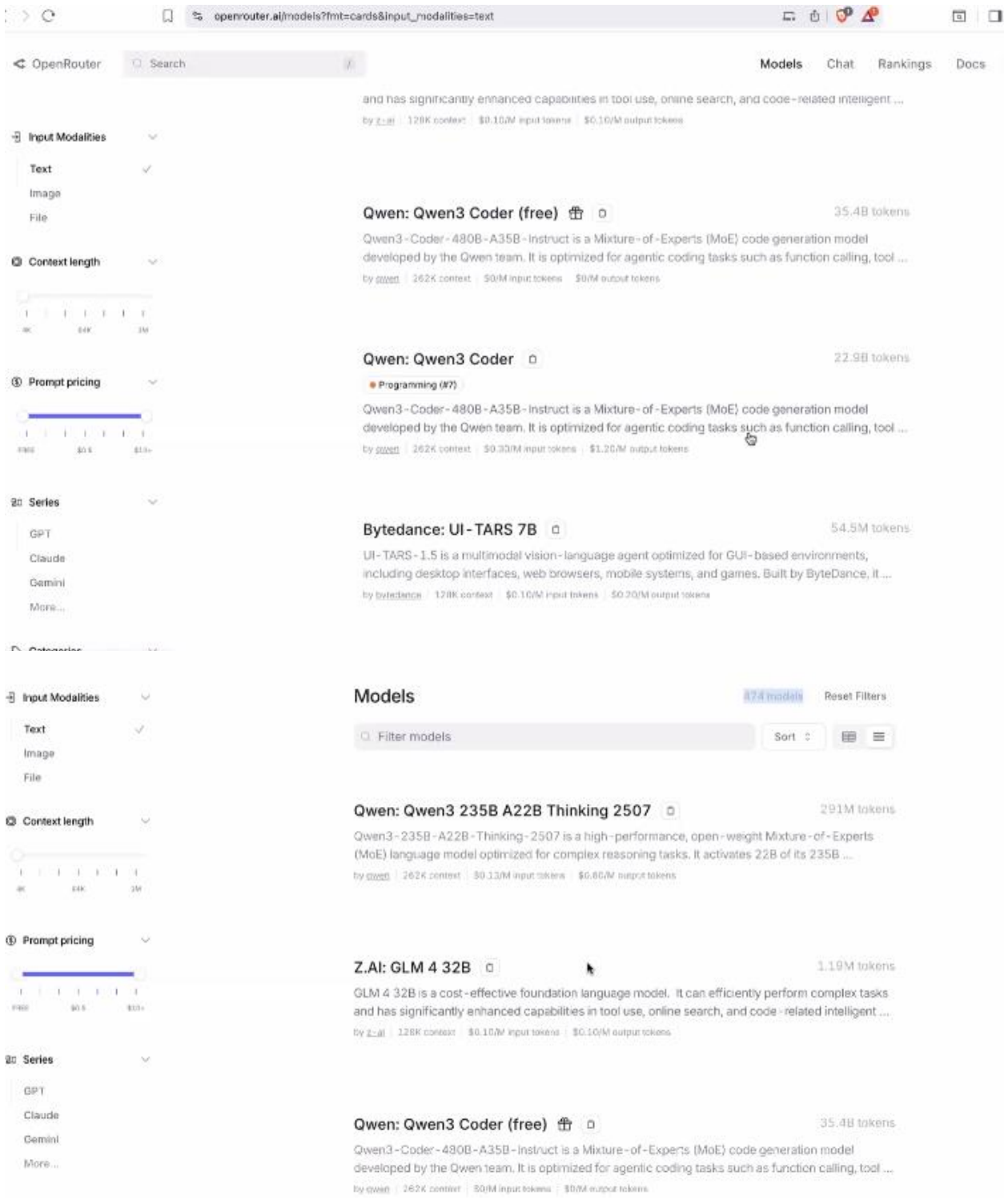

This Is How A Good Prompt Works Like!
Context
Task
Instruction
Data


What's on the agenda today?
Write an email to 10k subscribers inviting them to the Generative AI 2-day Mastermind by Outskill.
—
You are an experienced email copywriter who has written for brands like Ogilvy.
Write a launch email for a new workshop of Outskill on Generative AI. Write an email inviting people who have signed up for the workshop by Vaibhav Sisinty.
Tools


Prompt Engineering Guide
Courses
About
Search...
General Tips for Designing Prompts
Examples of Prompts
Prompting Techniques
Zero-shot Prompting
Few-shot Prompting
Chain-of-Thought Prompting
Meta Prompting
Self-Consistency
Generate Knowledge Prompting
Prompt Chaining
Tree of Thoughts
Retrieval Augmented Generation
Automatic Reasoning and Tool-use
Automatic Prompt Engineer
Prompt Engineering
Prompt Engineering Guide
Prompt engineering is a relatively new discipline for developing and optimizing prompts to efficiently use language models (LMs) for a wide variety of applications and research topics. Prompt engineering skills help to better understand the capabilities and limitations of large language models (LLMs).
Researchers use prompt engineering to improve the capacity of LLMs on a wide range of common and complex tasks such as question answering and arithmetic reasoning. Developers use prompt engineering to design robust and effective prompting techniques that interface with LLMs and other tools.
Prompt engineering is not just about designing and developing prompts. It encompasses a wide range of skills and techniques that are useful for interacting and developing with LLMs. It's an important skill to interface, build with, and understand capabilities of LLMs. You can use prompt engineering to improve safety of LLMs and build new capabilities like augmenting LLMs with domain knowledge and external tools.
Motivated by the high interest in developing with LLMs, we have created this new prompt engineering guide that contains all the latest papers, advanced prompting techniques, learning guides, model-specific prompting guides, lectures, references, new LLM capabilities, and tools related to prompt engineering.

Which Model To Use Where: Model Exploration




openrouter.ai/models?fmt=cards&input_modalities=text
OpenRouter
Search
Models
Chat
Rankings
Docs
and has significantly enhanced capabilities in tool use, online search, and code-related intelligent ...
Input Modalities
Text
Image
File
Context length
Prompt pricing
Series
GPT
Claude
Gemini
More...
Qwen: Qwen3 Coder (free)
35.4B tokens
Qwen3-Coder-480B-A35B-Instruct is a Mixture-of-Experts (MoE) code generation model developed by the Qwen team. It is optimized for agentic coding tasks such as function calling, tool ...
Qwen: Qwen3 Coder
22.9B tokens
Programming (#7)
Qwen3-Coder-480B-A35B-Instruct is a Mixture-of-Experts (MoE) code generation model developed by the Qwen team. It is optimized for agentic coding tasks such as function calling, tool ...
Bytedance: UI-TARS 7B
54.5M tokens
UI-TARS-1.5 is a multimodal vision-language agent optimized for GUI-based environments, including desktop interfaces, web browsers, mobile systems, and games. Built by ByteDance, it ...
Models
474 models
Reset Filters
Filter models
Sort
Qwen: Qwen3 235B A22B Thinking 2507
291M tokens
Qwen3-235B-A22B-Thinking-2507 is a high-performance, open-weight Mixture-of-Experts (MoE) language model optimized for complex reasoning tasks. It activates 22B of its 235B ...
Z.AI: GLM 4 32B
1.19M tokens
GLM 4 32B is a cost-effective foundation language model. It can efficiently perform complex tasks and has significantly enhanced capabilities in tool use, online search, and code-related intelligent ...
Qwen: Qwen3 Coder (free)
35.4B tokens
Qwen3-Coder-480B-A35B-Instruct is a Mixture-of-Experts (MoE) code generation model developed by the Qwen team. It is optimized for agentic coding tasks such as function calling, tool ...

So How Do You Know Which Model To Use Where?

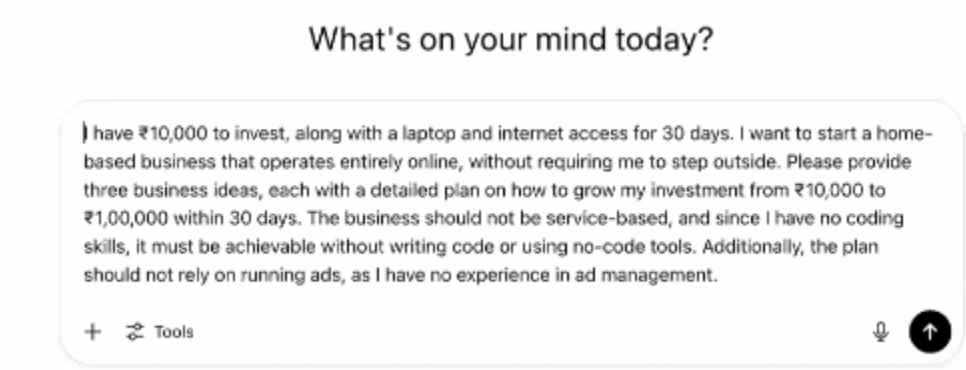
But There Is One Model Type That Everyone Needs To Know Because It's The Most Powerful

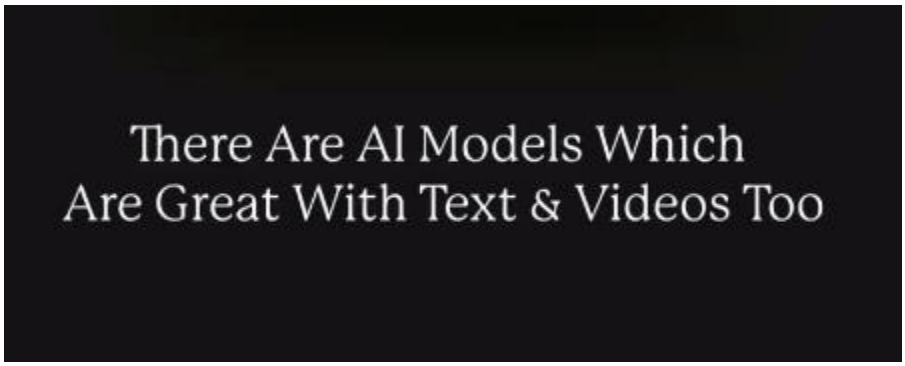
But There Is One Model Type That Everyone Needs To Know Because It's The Most Powerful

Reasoning Models

Reasoning Models Of The World

Company	Reasoning Models	Key Features (Simple Explanation)
OpenAI	o3-mini, o3-mini-high, o1, o1-mini	Can "think harder" for tough problems, excels at math, science, and coding, lets users choose speed vs. depth [4] [7].
Google	Gemini 2.0 Flash, Gemini Flash Thinking Experimental, Gemini Advanced	Handles complex reasoning, supports long and detailed answers, strong in logic and planning [1].
DeepSeek	DeepSeek R1	Open-source, specializes in step-by-step problem solving, uses self-reflection and verification to improve answers [5] [7].
xAI	Grok 3, Grok 3 Mini (Think Mode)	Walks through problems step-by-step, shows its reasoning clearly, can be set to "think" more deeply when needed [6] [7].
Anthropic	Claude 3.7 Sonnet, Claude 3.5 Sonnet (Extended Thinking)	Shows its reasoning process, can spend extra time for more thoughtful answers, good at chain-of-thought reasoning [7].






MARS


ON AI
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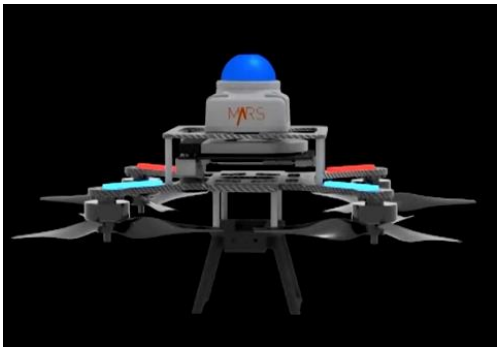
Cur. Vel. (km/h)
71.99
Ave. Vel. (km/h)
52.98


PhD student
The University of
HKU
Engineering



Photos:

Department of CSE(Artificial Intelligence & Machine Learning

Organises

Intelligent Machines
NLP Meets Robotics

Speaker

Mrs L.Yamuna

Assistant Professor in CSE(AIML) Department

Venue : CS8

24 JULY 2025
10AM to 11:30AM

In Association with IAENG (International Association of engineers & Turing club)

Pragati Engineering College
(AUTONOMOUS)

PRAGATI ENGINEERING COLLEGE

Learning is Supreme Deity

(AUTONOMOUS)

DEPARTMENT OF CSE (Artificial Intelligence & Machine Learning)

PEC / Admin / Circular / 2025 / Turing CLUB

Date: 21-07-2025.

All the staff, Pragati Turing club coordinators, Third year Students are informed that a seminar on "Intelligent Machines: NLP Meets Robotics" is being organized by Turing club & IAENG in association with career Guidance cell. The details are given below.

Date: 24- 7-2025
Time: 1:30 PM to 3:30 PM
Venue: CS8
Faculty Co-Ordinator: Mrs. L. Yamuna

Student Co-Ordinator: (III -year CSE (AI&ML)- 23A31A4203(DARSI SAHITHYA)

Speaker: Mrs.L.Yamuna & Mrs K.S.R Manjusha
Assistant Professor,

Faculty coordinator **HoD-CSE (AI&ML)**

Copy to:

1) Chairman /All Directors / Vice President for kind information.
2) Vice Principal/Dean T&P for information.
3) All HoDs are requested to circulate among your staff members.
4) Convener-Career Guidance cell
5) Office File.