SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING-IOT Including CS&BCT

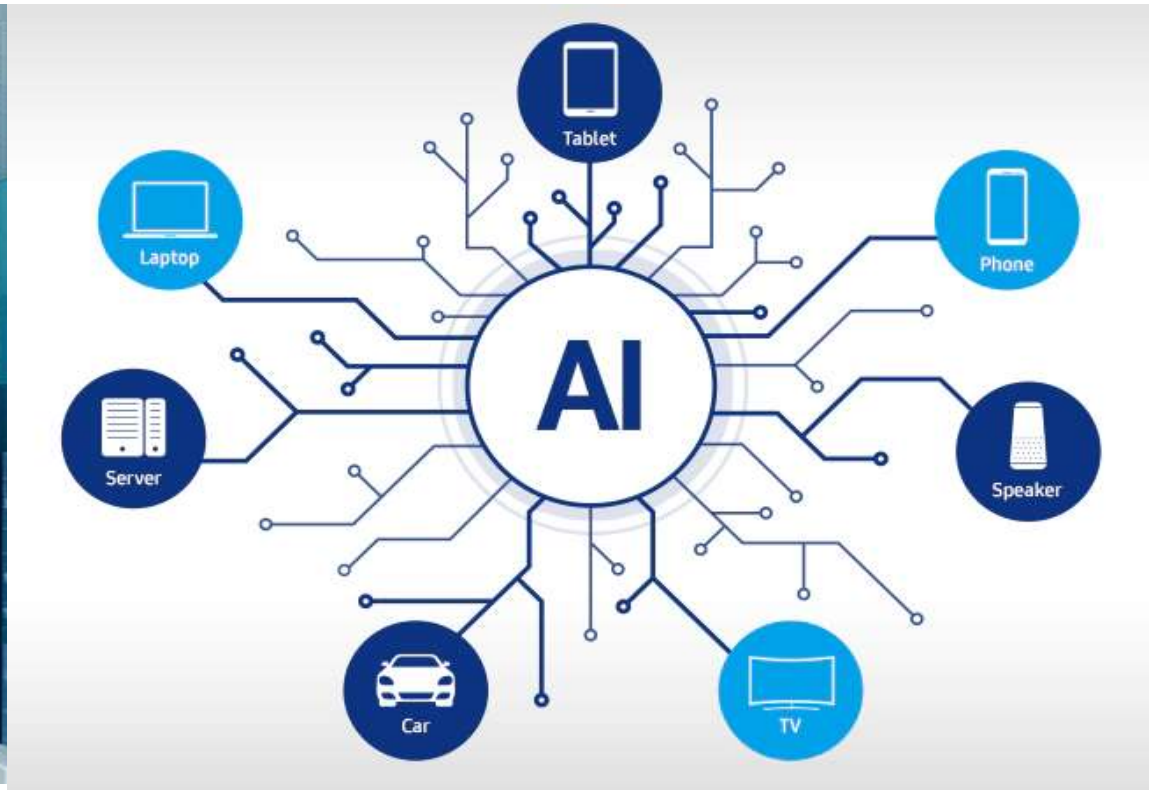
COURSE NAME :**19SB601 ARTIFICIAL INTELLIGENCE AND NATURAL LANGUAGE PROCESSING**

III YEAR / VI SEMESTER

Unit I-**INTRODUCTION TO ARTIFICIAL INTELLIGENCE& INTELLIGENT SYSTEMS**

Topic : Contributes to AI

ARTIFICIAL INTELLIGENT

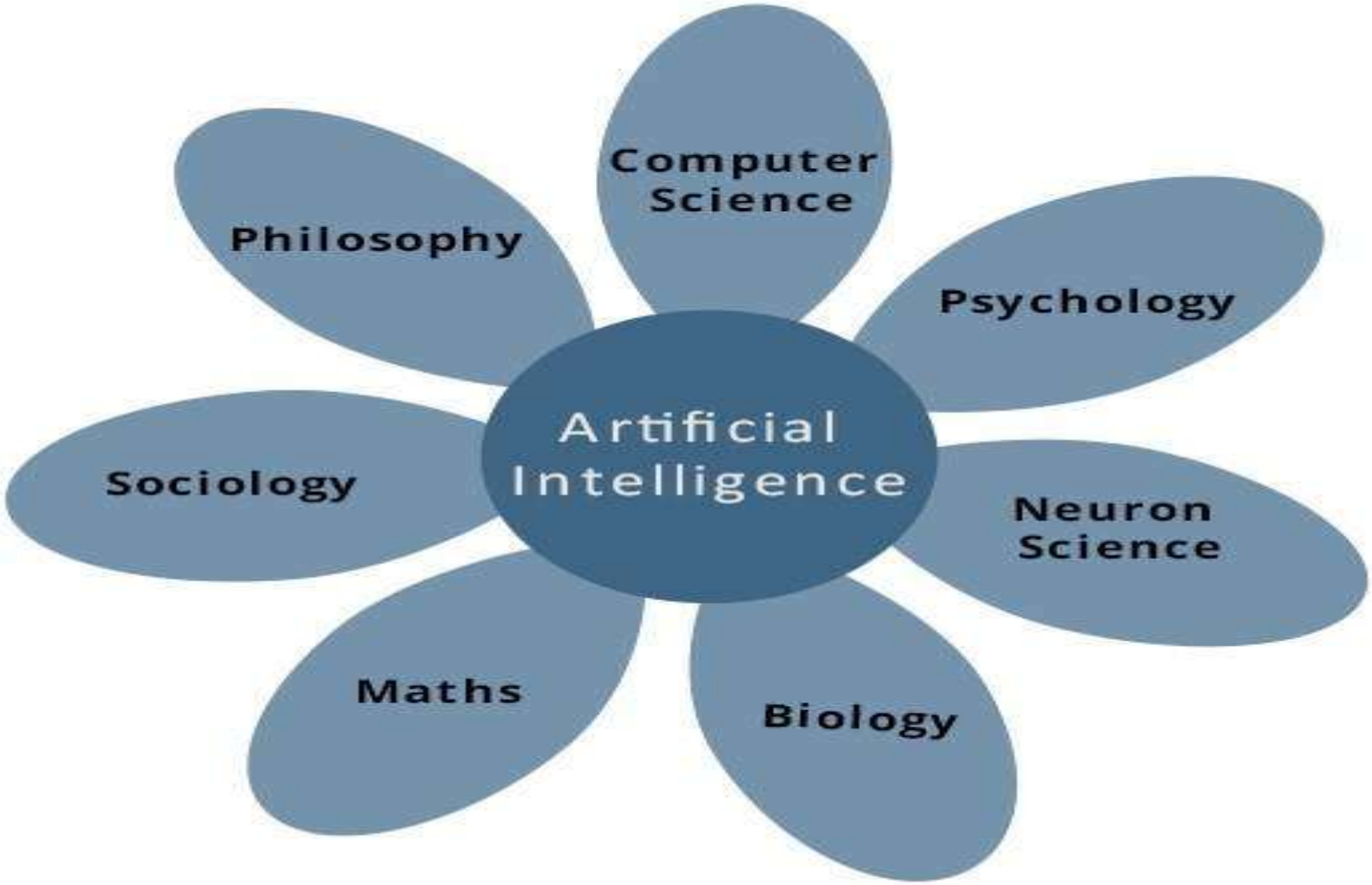


Contributes to AI

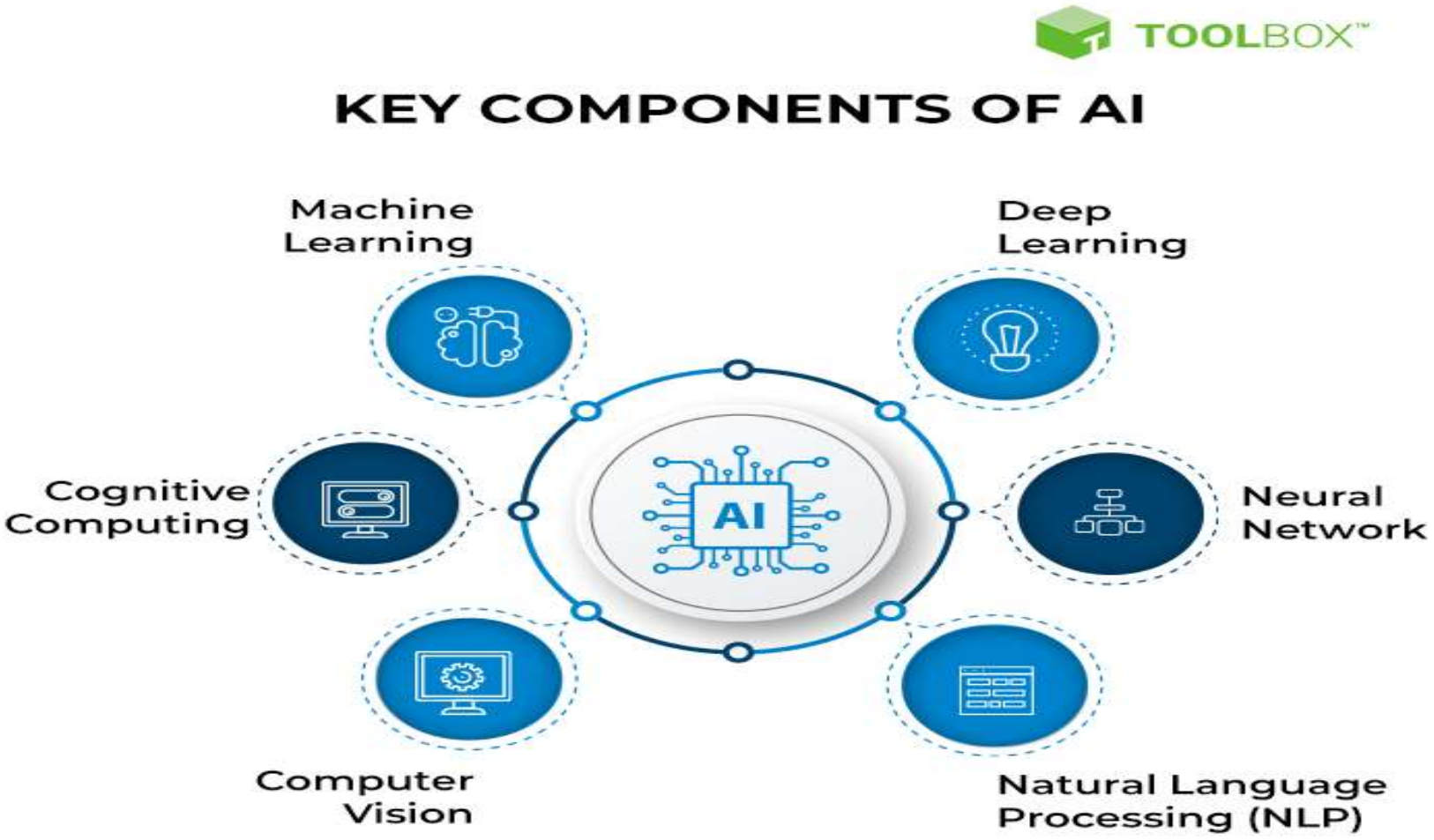
- Artificial intelligence is a science and technology based on disciplines such as Computer Science, Biology, Psychology, Linguistics, Mathematics, and Engineering.

- **A major thrust of AI is in the development of computer functions associated with human intelligence, such as reasoning, learning, and problem solving.**

Contributes to AI



Contributes to AI



Contributes to AI

1.Machine learning:

Machine learning is an AI application that automatically learns and improves from previous sets of experiences without the requirement for explicit programming.

2.Deep learning:

Deep learning is a subset of ML that learns by processing data with the help of artificial neural networks.

3.Neural network:

Neural networks are computer systems that are loosely modeled on neural connections in the human brain and enable deep learning.

4. Cognitive computing:

Cognitive computing aims to recreate the human thought process in a computer model.

Contributes to AI

5.**Natural language processing (NLP):**

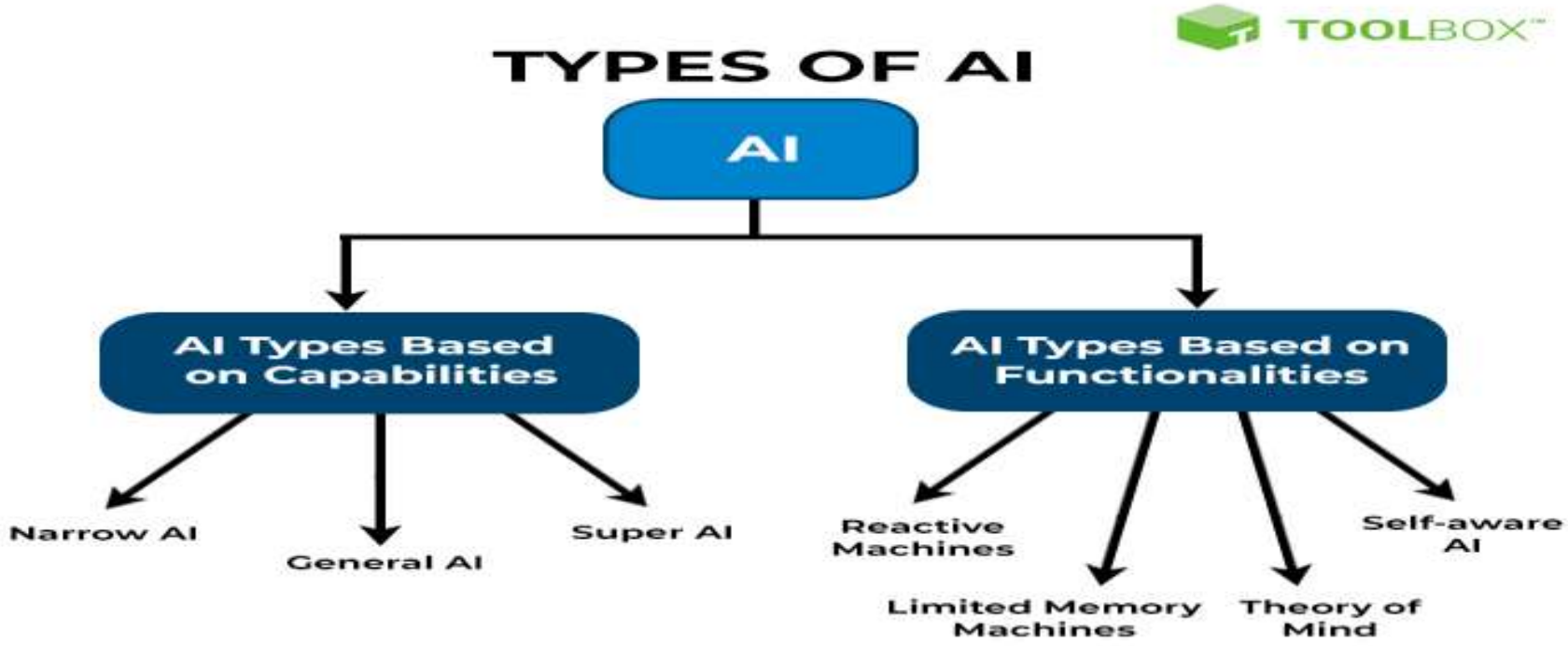
NLP is a tool that allows computers to comprehend, recognize, interpret, and produce human language and speech.

6.Computer vision:

Computer vision employs deep learning and pattern identification to interpret image content (graphs, tables, PDF pictures, and videos).

Types of AI

- Artificial Intelligence can be broadly divided into two categories:
- AI based on capability
- AI based on functionality.



Types of AI

1. Narrow AI

- Narrow AI is a goal-oriented AI trained to perform a specific task.
- The machine intelligence that we witness all around us today is a form of narrow AI.
- Examples of narrow AI include Apple's Siri and IBM's Watson supercomputer.

2. General AI

- General AI is an AI version that performs any intellectual task with a human-like efficiency.

3. Super AI

- Super AI is the AI version that surpasses human intelligence and can perform any task better than a human.

4. Reactive machines

- Reactive machines are basic AI types that do not store past experiences or memories for future actions.

5. Limited memory machines

- Limited memory machines can store and use past experiences or data for a short period of time. For example, a self-driving car

Types of AI

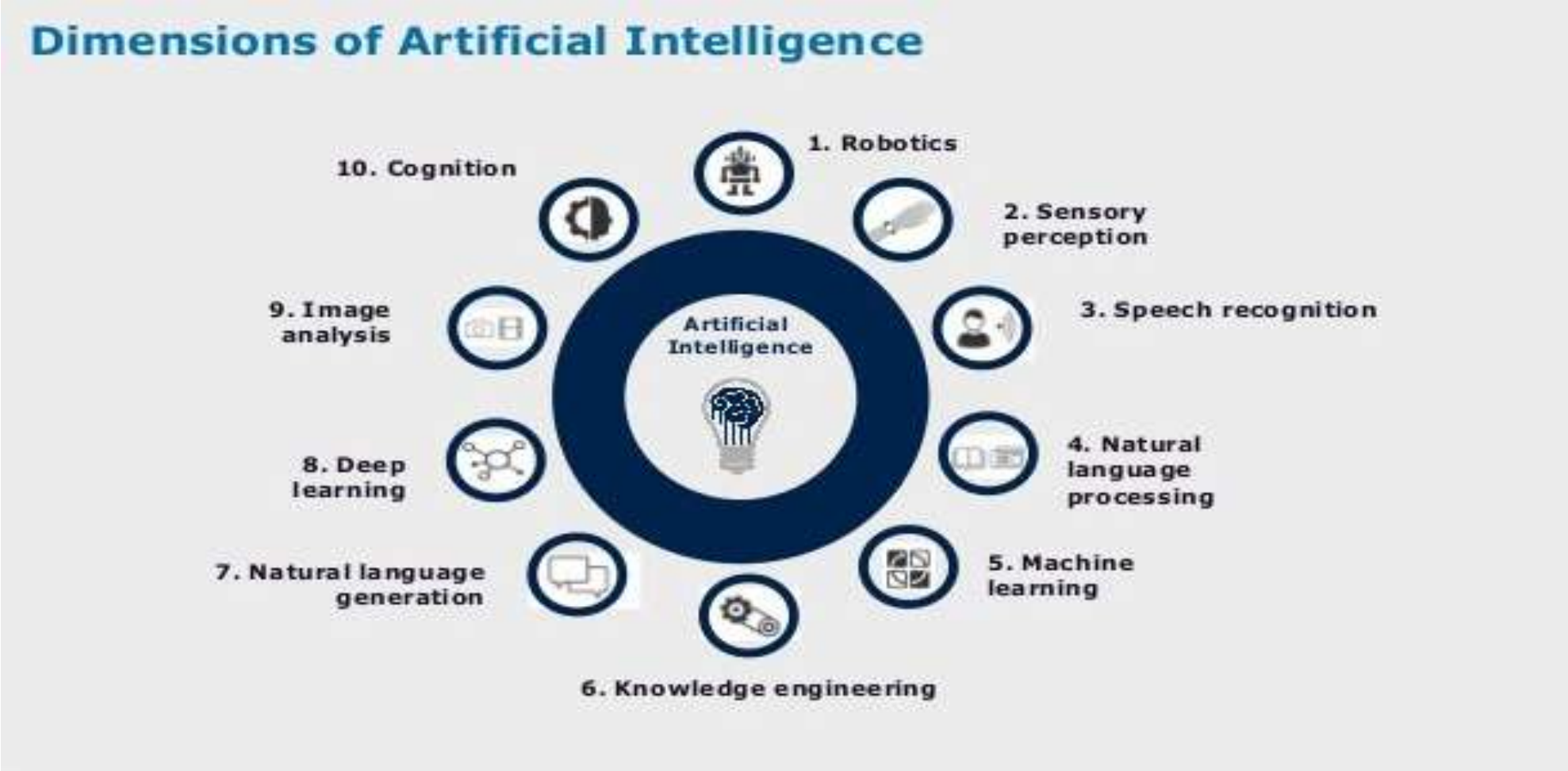
6. Theory of mind

- Theory of mind refers to the type of AI that can understand human emotions and beliefs and socially interact like humans.

7. Self-aware AI

- Self-aware AI deals with super-intelligent machines with their consciousness, sentiments, emotions, and beliefs.

Types of AI


Dimensions of Artificial Intelligence
1. Robotics
2. Sensory perception
3. Speech recognition
4. Natural language processing
5. Machine learning
6. Knowledge engineering
7. Natural language generation
8. Deep learning
9. Image analysis
10. Cognition
Artificial Intelligence

Any Query????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Thank you……