1.There are different interpretations of artificial intelligence in different contexts. Please elaborate on the artificial intelligence in your eyes.

- AI (Artificial Intelligence) technology means artificial intelligence or artificial intelligence, is a branch of computer science. An intelligence created by humans with the goal of helping computers to automate intelligent behaviors like humans.

2. Artificial intelligence, machine learning and deep learning are three concepts often mentioned together. What is the relationship between them? What are the similarities and differences between the three terms?

-AI is a broad field of study that focuses on creating intelligent machines that can perform tasks that normally require human intelligence.
- Machine learning is a subset of AI that focuses on creating algorithms that can automatically learn patterns and relationships in data
-Deep learning is a subset of machine learning that uses neural networks to model complex patterns in data.

* Similarities: The main similarity between AI, machine learning, and deep learning is that they are all focused on creating intelligent machines that can perform tasks that would normally require human intelligence.

*Diffferences: The main difference between the three is their level of complexity and the techniques they use to achieve this goal.Ex

+AI is a broad field of study that encompasses techniques for creating intelligent machines, while machine learning and deep learning are more specialized subsets of AI that focus on creating algorithms that can learn from data.

+Machine learning algorithms enable machines to improve their performance on a task by learning from experience, without being explicitly programmed.

+ Deep learning algorithms are inspired by the structure and function of the human brain, and are capable of processing large

amounts of data to learn representations and make predictions. Deep learning has been particularly successful in tasks such as image recognition, speech recognition, and natural language processing.

3. After reading the artificial intelligence application scenarios in this chapter, please describe in detail a field of AI application and its scenarios in real life based on your own life experience.

As we all know Nhat Chinhs is a trend in the future, it is applied in many different aspects, but today with the perspective of mechatronics students, I present the vision of AI with traffic in the future.

First, autonomous vehicles are understood as a type of robot that moves automatically from one point to another according to pre-installed roads. They will process variables by means of a sensor system to recognize situations on the journey.

Second, traffic flow analysis Artificial intelligence is now paving the way for better traffic flow analysis using machine learning and computer vision. Applying the advancement of technology, management units, traffic users can monitor and estimate traffic on the route based on smart cameras, drones.

Third, smart traffic camera,AI camera is one of the artificial intelligence products that have been applied in the field of traffic in our country: cold fines, traffic flow measurement, vehicle identification, violation detection, etc. ..Artificial intelligence cameras have the ability to observe and detect dangerous events, unusual phenomena, as well as provide detailed information about peak hours.

However,the recognition system for autonomous vehicles is still a challenge because this system cannot be improved by training, but must use camera technology to identify objects most accurately.

4. Which chip is for deep neural networks and Ascend AI processors. Please brief these four major modules.

The Ascend AI processors from Huawei. These processors are designed specifically for deep learning tasks, and they use a unique architecture that includes four major modules:

- The CANN (Compute Architecture for Neural Networks) module: This module is responsible for handling the matrix computations required for deep neural networks. It is optimized for high-speed matrix multiplication and can perform many operations in parallel.
- The Tensilica module: This module is responsible for handling the control flow of the system. It handles tasks such as data management, memory access, and program execution.
- The CPU module: The CPU module is responsible for handling general-purpose computing tasks that are not specific to deep learning.
- The AICore module: This module is responsible for handling complex operations that require multiple AI cores working together. It is optimized for tasks such as natural language processing and image recognition.

5. Based on your current knowledge and understanding, please elaborate on the development trends of artificial intelligence in the future in your view.

There are many fields that can be applied much in the future but in my opinion, for multimedia communication, it will be indispensable with current and future trends and here are the reasons why I say that.

Applications in search engines AI is used to predict the intent of users when they search for a certain keyword on a search engine. Thanks to

that, it is possible to return users to the results that are accurate and related to the keywords they are searching for.

Identify target customers AI will help you identify your target customers through previous interaction data. AI will analyze and make statistics to tell you what age the customer is, gender, job... In addition, the AI system also analyzes and remembers the time of purchase, the total bill...

Build customer relationships AI is used by many businesses in the process of building relationships with potential customers. Businesses can apply vending systems to communicate and provide customers with necessary information.You can see that Vietnam Posts and Telecommunications Group is applying AI virtual assistants to communicate with customers 24/7 to help build trust and create close relationships with users. When accessing VNPT's website and needing any information, you can choose to chat with a virtual assistant.

Application in advertising AI helps determine which advertising methods help businesses increase the number of potential customers. AI has an observation system to recognize who is approaching the business's ad. Then, the system will change the appropriate ads to the customers you are reaching based on age, gender and content of interest on the ad.