Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce& Hutatma Babu Genu Science College, Manchar, Tal. Ambegaon Dist. Pune 410503

Department of Electronic Science
Best Practice- 2024-25
Wallpaper / Poster Presentation by Students
Report

Objective	• To cultivate out of box thinking, such as inter-disciplinary thinking, synthesizing knowledge of different disciplines and to cope with complexity among students. • To ensure the knowledge acquiring among the student's community. • To make them understand the emerging concepts from known concepts. • To stimulate in-depth learning of the concepts and understanding of various topics.
The Context	• This event is to provide an opportunity for the students to share their knowledge with the peer group members. • The digital poster is prepared in advance with desired technical framework to share the knowledge on inter-disciplinary fields. • This activity will lead to encourage the students to participate in symposia, technical presentation.
Evidence of Success	Outcome of this practice enables the students to ✓ Participate in technical presentation ✓ Project Expo ✓ Participate in skill-oriented competitions
Challenging Issues	Resources are the main challenges for participation in the competition. • For success of such practices require attitude and willingness without which it is difficult to motivate students which is the target audience of the Institute. • Degree of motivation required in the minds of the students can result in success of such practices.

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Department of Electronic Science
Best Practice: Wallpaper Presentation

Title of the Best Practice	Wallpaper Presentation
Objectives of the Practice	Students get acquainted with the recent knowledge of electronics with reference to 1. The research 2. Innovations 3. New technologies 4. Use of electronics to the society.
The Context	Students aims to maximise the gains that science technology & innovation can bring to society & the economy.
The Practice	This best practice benchmarking approach is an inductive approach to quality of research news in the World with focus on improvements in the students to deal with innovations.

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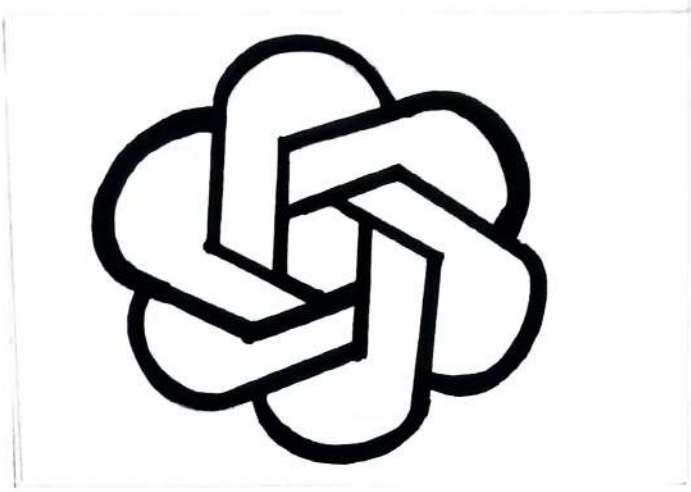
Chat GPT



Chat GPT is a generative artifical intelligence chatbot developed by Open AI and launched in 2022. It is currently based on the GPT-4o large language model. ChatGPT can generate human-like conversational responses and enables users to refine and steer a conversation towards a desired length, format, style, level of detail, and language. It is credited with accelerating the AI boom, which has led to on going rapid investment in and public attention to the field of artificial intelligence. Some observation have raised concern about the potential of chatGPT and similar programs to displace human intelligence, enable plagiarism, or fuel misinformation.

By January 2023, chat GPT had become what was then the fastest-growing consumer software application in history, gaining over 100 million users in two months.

Chat GPT's release spurred the release of competing products, including Gemini, claude, Llama, Ernie and Grok. Microsoft launched Copilot, initially based on Open AI. GPT-4. In May 2024, a partnership between Apple Inc. and Open AI was announced in which chat GPT was.

ROBOTICS Technology....

Robotics Technology is the science and engineering of designing, building, and using robots. Robots are machines that can perform tasks that humans can do, or that can replace humans in dangerous situations.

How robotics technology works

- **Artificial intelligence (AI)**
  AI key part of robotics. AI allows robots to learn, make decisions, and adapt to new situations.
- **Machine learning**
  A subset of AI, machine learning allows robots to learn new skills and knowledge through experience.
- **Computer systems**
  Robots use computer systems to control, process information, and receive sensory feedback.

Types of robots

- **Domestic robots**
  simple robots that perform tasks like vacuuming, floor washing, and lawn moving.
- **Industrial robots**
  Reprogrammable robots that can move parts, tools, and materials to perform a veriety tasks.
- **Augmenting robots**
  Also known as VR robots, these robots can enhance human abilities or replace lost abilities.

Applications of robotics.

- In manufacturing, robots can automate production, speed up development and improve safety.
- In healthcare robots can help with medical diagnosis
- In human augmentation, robots can improve quality of life by replacing lost abilities or supplementing current abilities.

ou can also watch this video to learn more abo

Some common types of robots include SCARA robots. articulated robots. Cartesian robots. and delta robots.

SCARA robots

Also known as Selective Compliance Articulated Robot Arms. these robots have four axes and move in a two-dimensional plane. They are often use in Packaging and assembly.

Also known as robotic arms. these robots have multiple rotary joints that allow them to move in a variety of ways. They are often used in industrial applications such as welding and painting.

Cartesian robots.

- These robots have three linear axes and move in a rectilinear path. They are often used in pick and Place applications, 3D printing, packaging, drilling, and storage or retrieval.

Delta robots

- Also known as Spied robots, these robots have three arms that are connected to a base allowing them to move in a highly dexterous manner. They are designed for high-speed, high-acceleration operations with light loads.

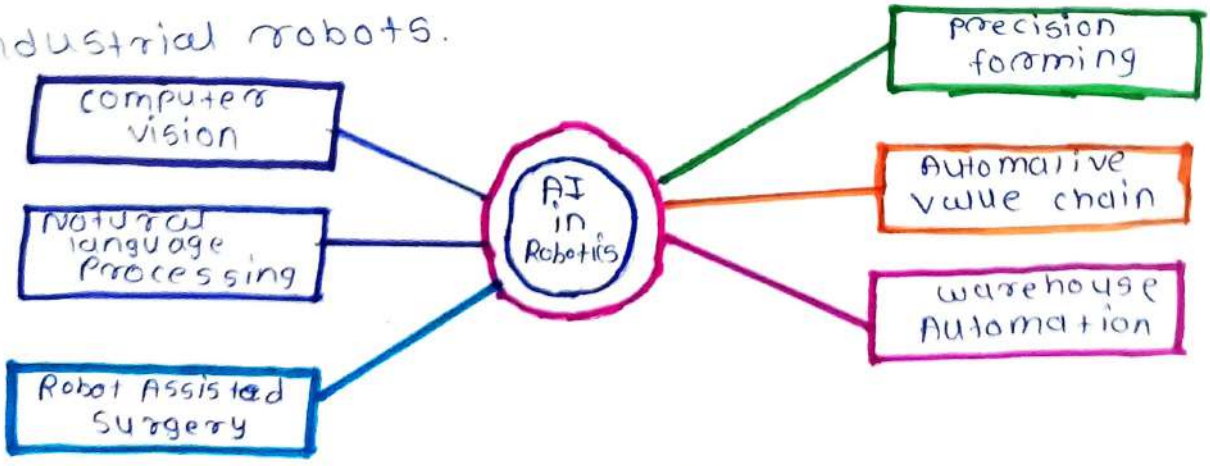
Other types of robots include.

Collaborative robots, also known as Cobots

Polar robots, also known as Spherical robots

Autonomous robots

Industrial robots.



Name:- Chaskar Dnyaneshwari Sandi

ntegrated into the Apple intelligence feature of Apple operating systems. As of July 2024, chat GPT's Website is among the 10 most-visited Websites globally.

Academic research :-

chat GPT has been used to generate introductory sections and abstracts for scientific articles. several papers have listed chat GPT as a co-author. Many authors argue that the use of chat GPT in academia for teaching and review is problematic due to its tendency to hallucinate.

Scientific journals have had different reactions to chat GPT. Some, including Nature and JAMA Network, "require that authors disclose the use of text-generating tools and ban listing a large language model. such as chat GPT as a co-author.

Coding :-

Researchers at Purdue University analyzed chat GPT's respones to 517 questions about software engineering or computer programming posed on stack overflow for correctness, consistency, comprehensiveness and concision and found that 52% of them contained inaccuracies and 77% were verbose.

When creating directly executable response to the latest 50 code generation problems from leet code that were rated "easy", the performances of GPT 3.5.

Computer Security :-

Check Point Research and others noted that chat GPT could write phishing emails and malware, especially when combined with Open AI codex.

Cyber Ark researchers demonstrated that chat GPT could be used to create polymorphic malware that could evade security products while requiring little effort by the attacker.

Name :- Wable Sakshi Sunil.

INTRODUCTION

Solar energy is defined as the transformation of energy that is present in the sun and is one of the renewable energy.

When sunlight passes through the earth, atmosphere in form of light and infrared radiation plants use to convert in to sugar and starches and this process is known as photosynthesis.

There are 5 types of Solar Energy.

1) Passive Solar energy
2) Active solar energy
3) Solar thermal energy
4) Photovoltic Solar Energy
5) Concentrating Solar Energy

How Solar Power System Works?

Solar power is harnessed using solar photovoltaic technology that converts sunlight into electricity by using semiconductors. When the sun hits the semiconductor within the PV cell, electrons are freed and bus bars collect the running electrons which results in electric current. When we place solar panels connected in a calculated manner in the sunlight, they start producing current & voltage in the form of Direct current but in most of countries in world appliances and equipment runs on Alternative current (AC) so we need to connect to all solar panels to an Inverter which then converts DC into AC for home use.

1. On-grid solar Power system / Grid interactive System
2. Off-grid solar Power system / Standalone system
3. Hybrid Solar Power System.

I.

Solar energy Applications

In this study, current perspectives of solar energy utilization as a renewable energy option are examined and discussed from the standpoint of sustainable development. The country being a world crude oil and natural gas producer is over dependent on these energy sources for electricity generation and other energy applications. This has currently put the country at risk of impending energy crises in view of fast diminishing fossil reserves, inadequate refining capacity to meet domestic consumption and serious cases of energy insecurity in restive regions where expliotations exists.

ADVANTAGES :

① Renewable : The amount of energy available on earth as long as sun exist

② Reliable :- The energy can be stored in the batteries and so there is no question of unreliability.

③ Clean :- This energy is cleanest form of energy as there is no emission of CO_2 - carbon dioxide like in case of fossible fuels which is one of the causes of global warming

DIS-ADVANTAGES :-

① The production is low during winter & cloudy.

② Installation cost of the materials are expensive.

③ Space consumption is more.

FUTURE SCOPE OF SOLAR ENERGY-

Generation of solar energy has tremendous scope in India. The geographical location of country stands to its benefit for generating solar energy.

Many large projects have been proposed in India. some of them are -

1. Thar Desert of India has best solar power projects, estimated to generate 700 to 2100 GW.
2. The Jawaharlal Nehru National Solar Mission (JNNSM) launched by the centre is targeting 20,000 MW of solar energy power by 2022.
3. Gujrat's pioneering solar power generating policy aims at 1000 MW of solar energy.

Name :

Chikhale Siddhesh Arjun