A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

Affiliated to Adikavi Nannaya University

Jagannaickpur, Kakinada.

DEPARTMENT OF COMPUTER SCIENCE

PAPER PRESENTATION

2023-2024

PERMISSION LETTER

To,
Dr. V.Anantha Lakshmi,
Principal,
A.S.D. Govt. Degree College for Women (A),
Kakinada.

From,
N.Naga Subrahmanyeswari,
Incharge - Department of Computer Science & Computer Applications,
A.S.D. Govt. Degree College for Women (A),
Kakinada.

     Sub: Request to conduct the Elocution and Paper Presentation competitions on account of Computer Literacy Day Celebrations for students on 01-12-2023 -Reg.

 Respected Madam,

    The Department of Computer Science wishes to conduct the Elocution competition on "Literacy for Human Centered Recovery: Narrowing the Digital Divide." and Paper Presentation Competition on "Recent Trends in the field of Computer Science", for all the students on 01-12-2023. This activity shall improve the confidence of students and improve their communication skills. Kindly do the needful.

      Thanking you, Madam.

            Yours faithfully,

            N.N.S.Eswari
            INCHARGE
          DEPT OF COMPUTER SCIENCE
      ASD GOVT DEGREE COLLEGE (W)AUTONOMOUS
           KAKINADA

CIRCULAR

A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

Affiliated to Adikavi Nannaya University
Jagannaickpur, Kakinada.

DEPARTMENT OF COMPUTER SCIENCE

CIRCULAR

Date: 28-11-2023

The Department of Computer Science wishes to organize the following Elocution competition on "Literacy for Human Centered Recovery: Narrowing the Digital Divide" and Paper Presentation competition on "Recent Trends in the field of Computer Science", on account of Computer Literacy Day celebrations at RB IV room for the students on 01-12-2023.

Note : Interested students can register with R.Veeraveni, Lab Programmer at Computer Lab-I on or before 30-11-2023.

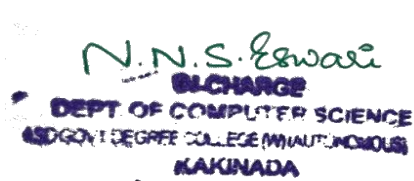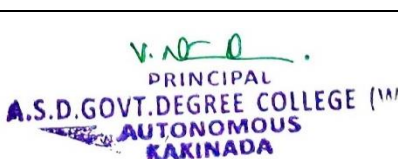**In charge of the Department**   **Principal**

A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

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DEPARTMENT OF COMPUTER SCIENCE

Activity Register 2023-2024

Date	1-12-2023
Conducted through (DRC/JKC/ELF/NCC/NSS/ Departments etc.)	Department of Computer Science and computer applications
Nature of Activity (Seminar/Workshop/Extn. Lecture etc.,)	**Paper Presentation**
Title of the Activity	Recent Trends in Computer Science
Name of the Department/Committee	**COMPUTER SCIENCE**
No. of students participated	10
Brief Report on the activity	To improve communication skills of students and to inculcate awareness on recent developments in the field of Computer Science
Name of the Lecturers who Planned & conducted the activity	N.Naga Subrahmanyeswari, Lecturer in Computer Science K.Surya Lakshmi, Guest Lecturer in Computer Science
Signature of the Dept. In-Charge /Convener of the Committee	N.N.S.Eswari INCHARGE DEPT OF COMPUTER SCIENCE ASD GOVT DEGREE COLLEGE (W) AUTONOMOUS KAKINADA
Signature of the Principal	V.N.... PRINCIPAL A.S.D.GOVT.DEGREE COLLEGE (W) AUTONOMOUS KAKINADA
Remarks	

A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)
Affiliated to Adikavi Nannaya University
Jagannaickpur, Kakinada.

DEPARTMENT OF COMPUTER SCIENCE

PAPER PRESENTATION

2023-2024

The Department of Computer Science conducted Paper Presentation Competition for the students on "Recent Trends in Computer Science" as part of World Computer Literacy Day Celebrations at RB IV room on 01-12-2023.

N.N.S.Eswari
INCHARGE
DEPT OF COMPUTER SCIENCE
ASD GOVT DEGREE COLLEGE (W) AUTONOMOUS
KAKINADA

Signature of the HoD

A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

## Affiliated to Adikavi Nannaya University
Jagannaickpur, Kakinada.

World Computer Literacy Day Celebrations
PAPER PRESENTATION

Date:01-12-2023

Name of the Judge: Dr.P.Sanjotha (Lec in English)
Dr.K.Jhansi Lakshmi(Lec in Chemistry)

S.No	Name of the Student	Class	Topic	Judge 1	Judge 2	Total (50 Marks)
1	M. Satwika	I BSC (MPCS)	Recent Trends in Robotics	15	14	29
2	B. Bhavya vijaya	II BSC (MPCS)	Artificial Intelligence	20	17	37
3	Y. Tejasri sai Pavani	II BSC (MPCS)	Cyber Security	17	15	32
4	**P. Divya**	**III B.Com (CA)**	**Cyber Security**	**23**	**23**	**46**
5	P. Sai veni	II BSC (MPCS)	Recent Trends in Computer	18	16	34
6	V. Sangeetha	II BSC (MPCS)	Data Science	18	18	36
7	**A. Akshaya**	**III BSC (MPCS)**	**Cyber Security**	**24**	**24**	**48**
8	D. Jayasri	III BSC (MPCS)	Internet of Things	21	22	43
9	Ch.Rukumini Sri	III BSC (MPCS)	Digital Twin Technology	18	20	38
10	V.Nandini	III BSC (MPCS)	Digital Jewellery	22	23	45

Winners: A.Akshaya, III B.Sc.(MPCS)
P.Divya ,III B.Com(CA)

A.S.D.GOVERNMENT DEGREE COLLEGE FOR WOMEN (A)

Affiliated to Adikavi Nannaya University

Jagannaickpur, Kakinada.

DEPARTMENT OF COMPUTER SCIENCE

Report on the Activity

Department of Computer Science has organized Paper Presentation Competition for the students on 01-12-2023 on "Recent Trends in Computer Science". The event aimed to focus on improving the communication skills of the students and also to create awareness among the students on the recent developments in the field of Computer Science.

The students from for I, B.Sc.(CS), II & III B.Sc.(MPCS) & I, II & III B.Com(Computer Applications) participated in the activity.

P.Divya, III B.Com(CA) presenting her PPT on Cyber Security

B.Bhavya Vijaya, II B.Sc.(MPCS) presentation on "Artificial Intelligence"

N.N.S.Eswari
INCHARGE
DEPT OF COMPUTER SCIENCE
ASD GOVT DEGREE COLLEGE (W)(AUTONOMOUS)
KAKINADA

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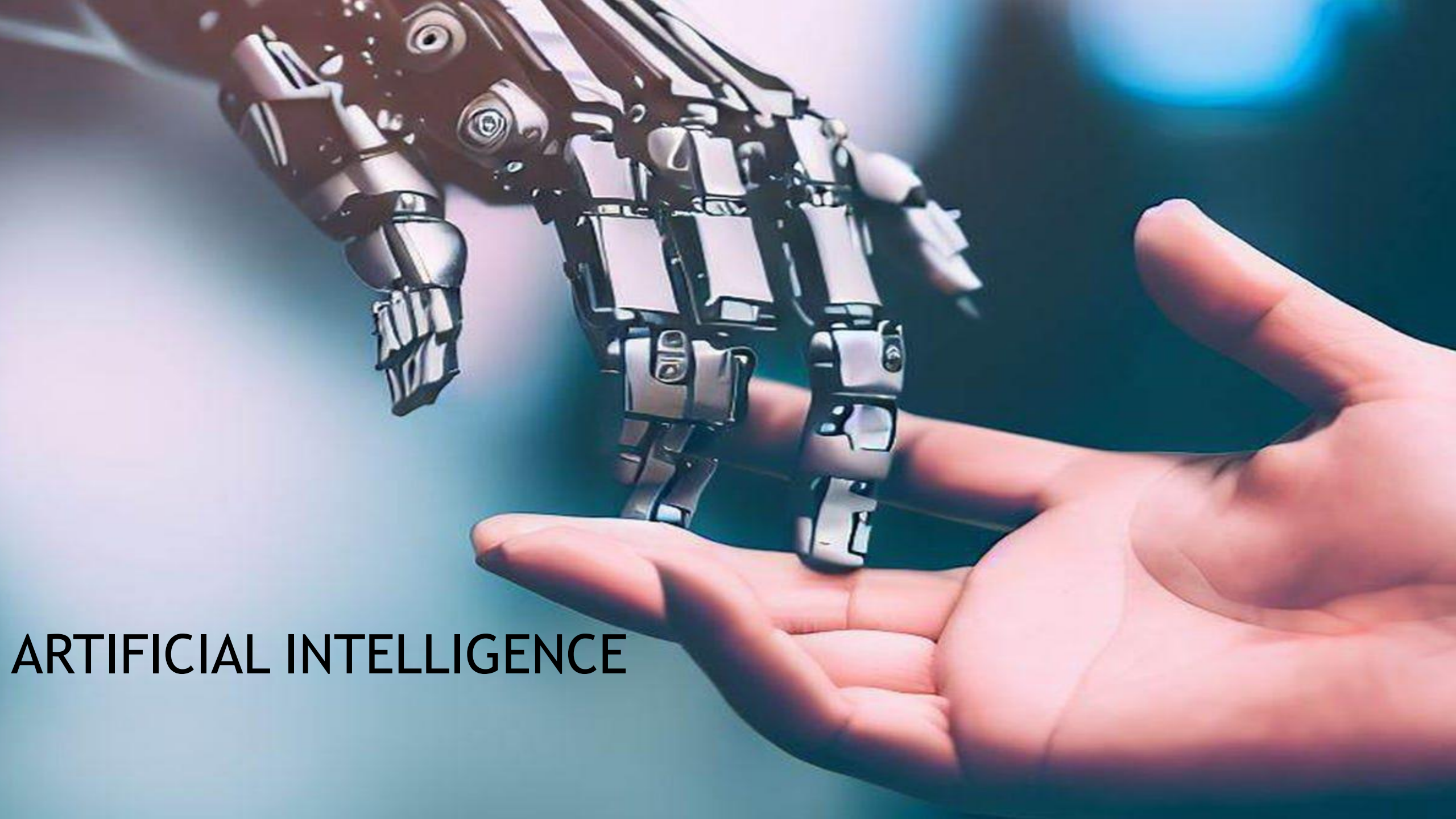
ARTIFICIAL INTELLIGENCE

CONTENTS:

► Definition

► History of AI

► Current status of AI

► Types of AI

► Advantages and disadvantages of AI

► Applications of AI

► Future of AI

► Conclusion

What is AI?

The study of computer systems that attempt to model and apply the intelligence of the human mind

HISTORY OF AI

One of the greatest innovators in the field was John McCarthy, widely recognized as the father of Artificial Intelligence due to his astounding contribution in the field of Computer Science and AI.

Current status of AI

❖ AI have taken many shapes and forms over recent years

▪ Mobile phones(Siri/Cortana)

▪ Video games

▪ GPS/Voice Recognition

▪ Robotics

Types of Aritificial Intelligence

- **3 Types of Artificial Intelligence**
- Artificial Narrow Intelligence (ANI)
- Artificial General Intelligence (AGI)
- Artificial Super Intelligence (ASI)

ADVANTAGES AND
DISADVANTAGES OF
ARTIFICIAL
INTELLIGENCE

Advantages of AI

1. precision and accuracy
2. reducing human error
3. reduces risk
4. available 24/7
5. assistance on digital platforms

Disadvantages of AI

1. High production cost
2. Risk of unemployment
3. Increasing human's laziness
4. Emotionless
5. Lack of creativity

Applications of Artificial Intelligence
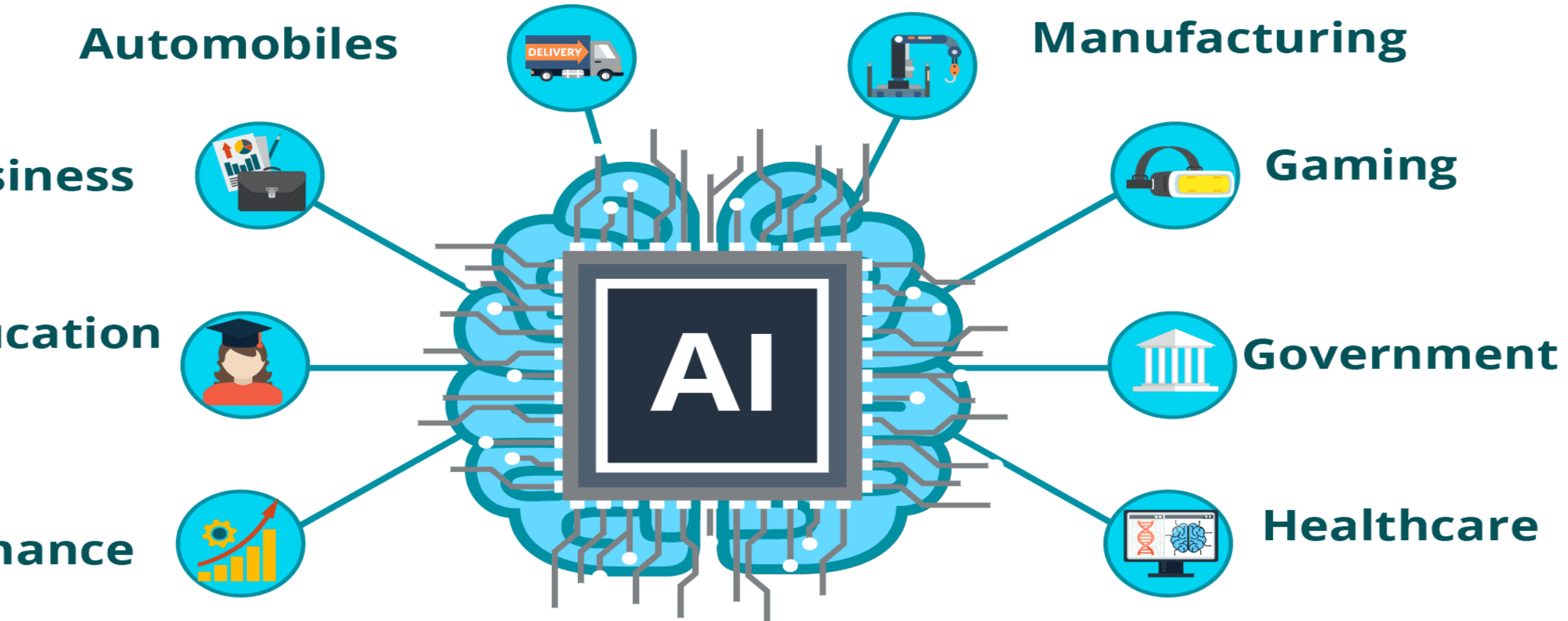
Future of AI
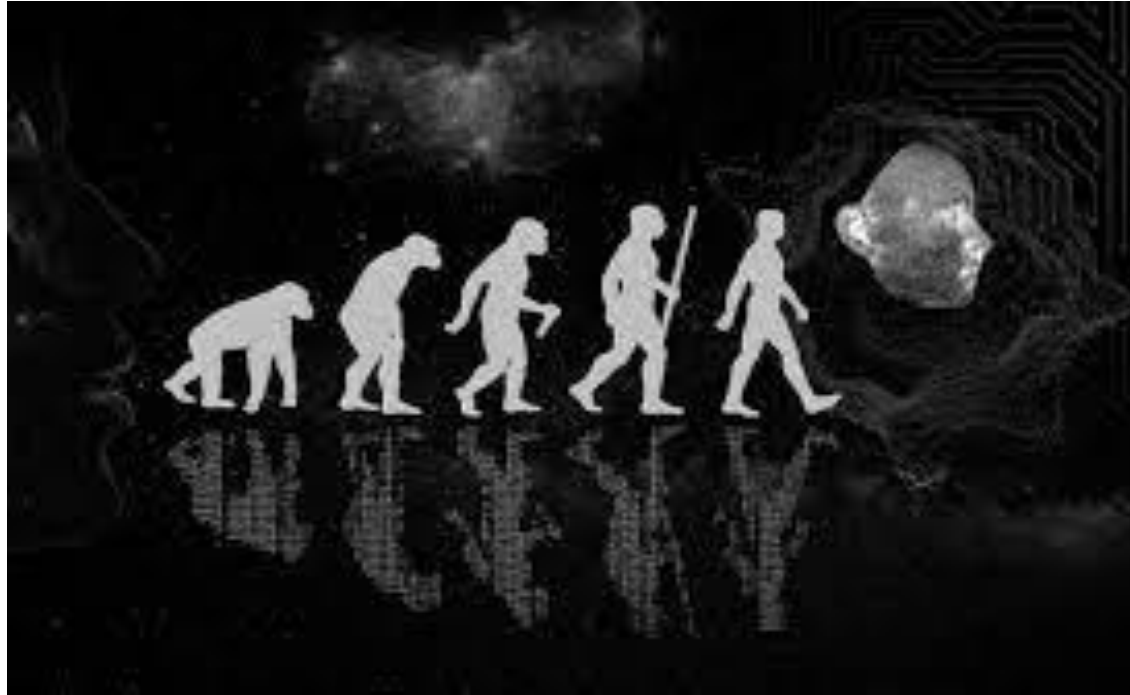
▶ AI has the potential to bring about numerous positive changes in society, including enhanced productivity, improved healthcare, and increased access to education. AI-powered technologies can also help solve complex problems and make our daily lives easier and more convenient.

conclusion:

Life was forever changed by AI because humans could use the assistance of machines to complete repetitive ,dangerous and difficult tasks.Although advaces are likely to improve the functioning of AI,AI will remain a function of human activity.

Thank you

ASD GOVT DEGREE COLLEGE FOR WOMEN'S(A)

DEPARTMENT OF COMPUTER SCIENCE

NAME: CH.RUKMINI SRI
GROUP: III B.SC(MPCS)
REG NO: 2132009
TOPIC: DIGITAL TWIN TECHNOLOGY

DIGITAL TWIN TECHNOLOGY -
THE FUTURE OF INDUSTRIAL INNOVATION

INTRODUCTION

- A Digital Twin is a virtual model of physical object.

- Computer based versions of anything that physically exists.

- Cloud based virtual image of your asset maintained throughout the lifecycle and easily accessible at any time.

- Virtual copy of something real, modelled to behave realistically.

- One platform brings all the experts together providing powerful analysis, insight and diagnostics.

HISTORICAL BACKGROUND

- NASA initial pioneered the idea of digital twin

- The concept formulated in university of Michigan 2003 by Dr.Michael Grieves specialist in lifecycle management & john Vickers of Nasa.

- The adopation of this model in industries till 2014.

- Introducing cognitive &AI starting from 2015 by IBM,Microsoft and industry leaders.

APPLICATONS OF DIGITAL TWIN TECHNOLOGY

Digital twin technology is used across various industries for simulation, analysis, and optimization. Common applications include:

Manufacturing: Enhances production processes, monitors equipment health, and aids in predictive maintenance.

Healthcare: Enables personalized medicine, simulates patient scenarios, and supports medical device development.

Smart Cities: Facilitates urban planning, monitors infrastructure, and optimizes energy consumption.

- **Aerospace**: Assists in design, testing, and maintenance of aircraft for improved efficiency and safety.

- **Automotive**: Optimizes vehicle design, tracks performance, and supports autonomous vehicle development.

-

  Energy: Manages and optimizes power plants, predicts equipment failures, and enhances grid resilience.

-

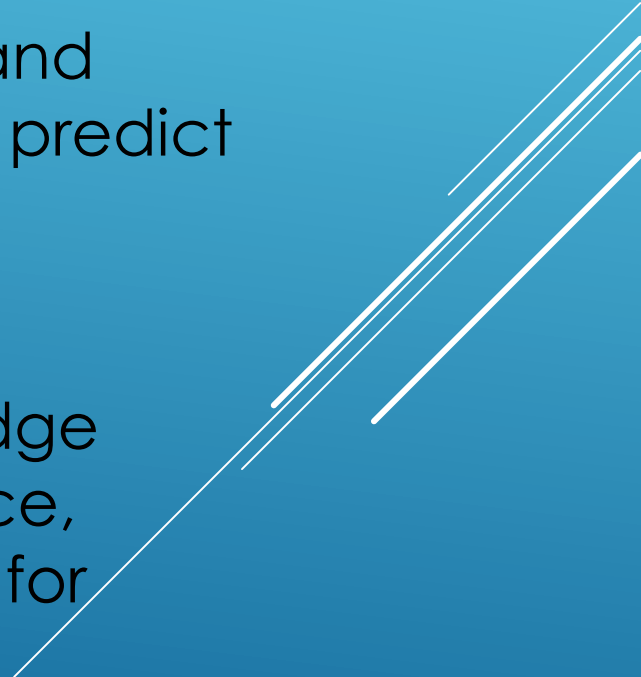 **Construction:** Assists in planning, monitoring construction sites, and optimizing building performance.

➢ **IOT and Industry 4.0**: Integrates with IoT devices for real-time monitoring and control of connected systems.

➢ **Supply chain**: Enhances visibility and efficiency by simulsting and optimizing supply chain processes.

➢ **Infrastructure Management**: Monitors and manages the health of critical infrastructure, such as bridges and dams.

REFERENCE PICTURES OF DIGITAL TWIN:

EVOLUTION OF DIGITAL TWIN TECHNOLOGY

➢ **Conceptualization (2000s):** The concept of digital twins emerged, driven by advancements in simulation, IoT, and data analytics. Initial applications focused on manufacturing and product development.

➢ **Early Adoption (2010s):** Industries like aerospace and automotive started adopting digital twins for design, testing, and maintenance. The technology expanded into areas like healthcare, energy, and smart cities.

- **IoT Integration (Mid-2010s):** The rise of the Internet of Things (IoT) played a pivotal role in digital twin evolution, enabling real-time data collection from physical assets and environments.

- **Advanced Analytics (Late 2010s):** Improved analytics capabilities allowed for more sophisticated modeling and simulation within digital twins, enhancing their ability to predict and optimize.

- **Edge Computing (2018 Onwards):** The integration of edge computing brought processing closer to the data source, enabling faster real-time analysis and decision-making for digital twins.

- **AI and Machine Learning (2019 Onwards):** The incorporation of AI and machine learning enhanced the predictive capabilities of digital twins, enabling more accurate simulations and deeper insights.

- **Blockchain Integration (Exploratory**): Some applications explore integrating blockchain for enhanced security and transparency, especially in sectors like supply chain management.

- **Extended Reality (XR) (2020s):** The use of extended reality technologies, including augmented reality (AR) and virtual reality (VR), is expanding digital twin capabilities for immersive visualization and collaboration.
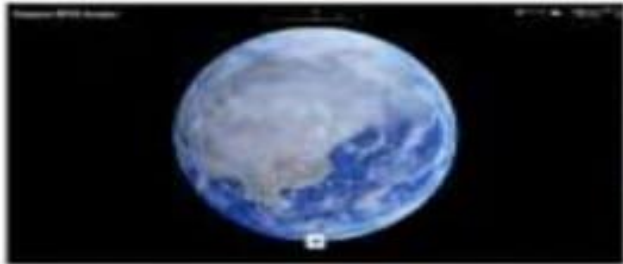
REFERENCE BOOKS ON DIGITAL TWIN:
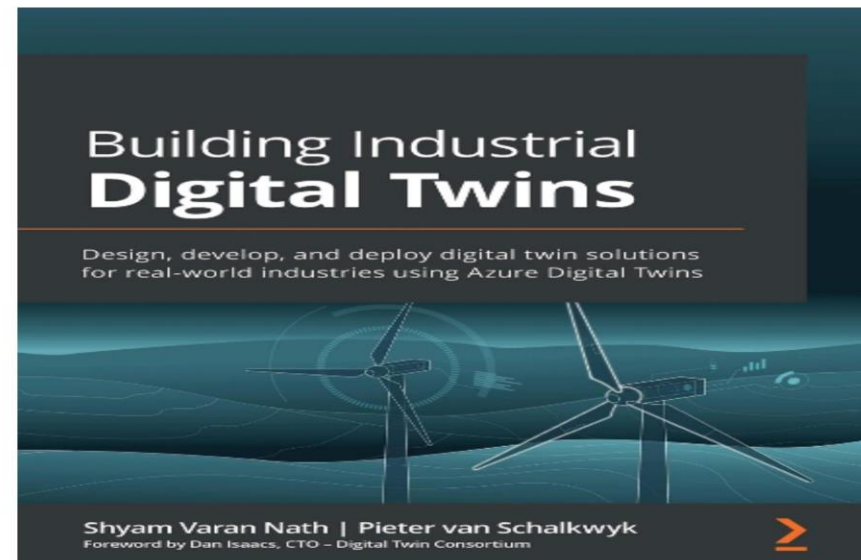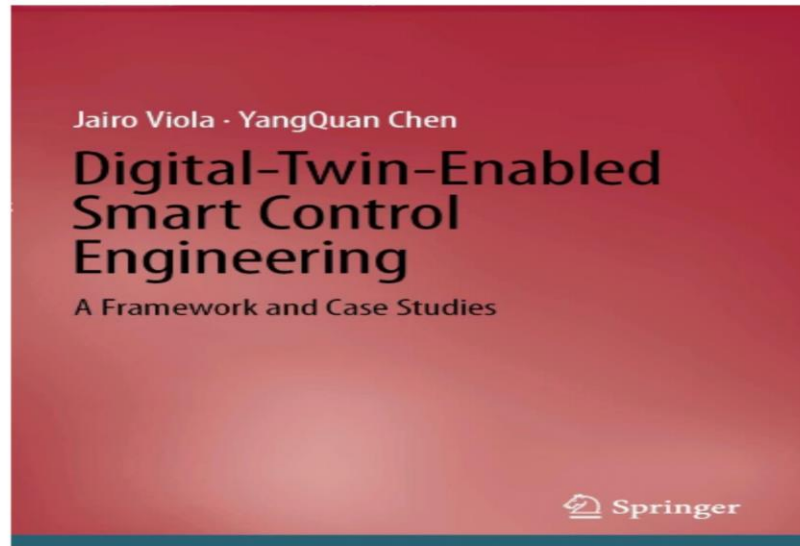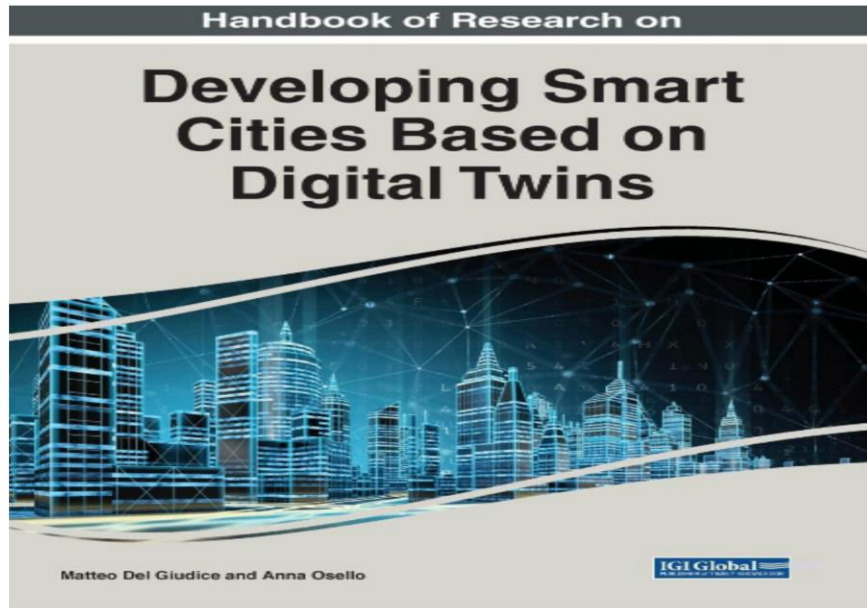
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ASD GOVT DEGREE COLLEGE FOR WOMENS(A)

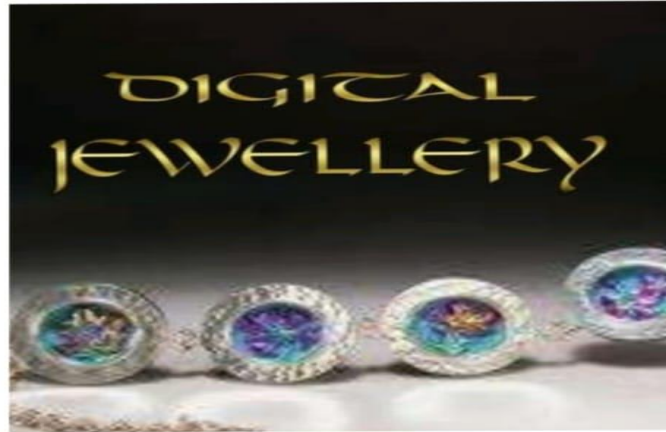## DEPARTMENT OF COMPUTER SCIENCE

NAME : V .NANDINI

GROUP : III B.SC (MPCS)

REG NO: 2132035

TOPIC: DIGITAL JEWELLERY

DIGITAL   JEWELLERY

INTRODUCTION

➡ In computer fashion wave "Digital jewellery" looks to be the next sizzling fashion trend of the technological wave.

➡ The combination of shrinking computer devices and increasing computer power has allowed several companies to begin producing fashion jewellery with embedded intelligence.

➡ By the end of the decade, we could be wearing our computers instead of sitting in front of them.

WHAT IS DIGITAL JEWELLERY?

- Digital jewellery is the fashion jewellery with embedded intelligence.

- "Digital jewellery" can help you solve problems like forgotten passwords and security badges.

- Digital jewellery, will be the evolution in digital technology that makes computer elements entirely compatible with the human form.

- They have the potential to be all-in-one replacements for your driver's license, key chain, business cards, credit cards, health insurance card, corporate security badge, and loose cash.

DIGITAL JEWELLERY AND ITS COMPONENTS

- Soon, "cell phones" will take a totally new form, appearing to have no form at all.

- The various components that are inside a cell phone: Microphone, Receiver, Touch pad, Display, Circuit board, Antenna and Battery.

- IBM has developed a prototype of a cell phone that consists of several pieces of digital jewellery that will work together wirelessly, possibly with Bluetooth wireless technology…..

EAR RINGS

- **Speakers:** embedded into these earrings will be the phone's receiver.
- These days many manufacturers are developing Things like Bluetooth devices in the form of pendants

  Or earrings that people can wear that help enhance heir mobile phones, computers PDAs, basically anything that uses similar Technology.

RING

- Perhaps the most interesting piece of the phone, this "magic decoder ring" is equipped with LEDs that flash to indicate an incoming call. It can also be programmed to flash different colors to identify a particular caller or indicate the importance of a call.

Cell phones may one day be comprised of digital accessories that Work together through wireless connections

IBM'S MAGIC DECODER RING

- The same ring that flashes for phone calls could also inform you that e-mail is piling up in your inbox.

- This flashing alert could also indicated the urgency of the e-mail

- The mouse-ring that IBM is developing will use the company's Track Point technology to wirelessly move the cursor on a computer-monitor display.

- Track Point is the little button embedded in the keyboard of some laptops.

- IBM Researchers have transferred Track Point technology to a ring, which looks something like a black-pearl

BRACELET

➡ Equipped with a video graphics array (VGA) display, this wrist display could also be used as a caller identifier that flashes the name and phone number of the caller.

➡ Bluetooth Bracelet built in rechargeable battery, when a call is coming the bracelet will vibrate and lamp flash.
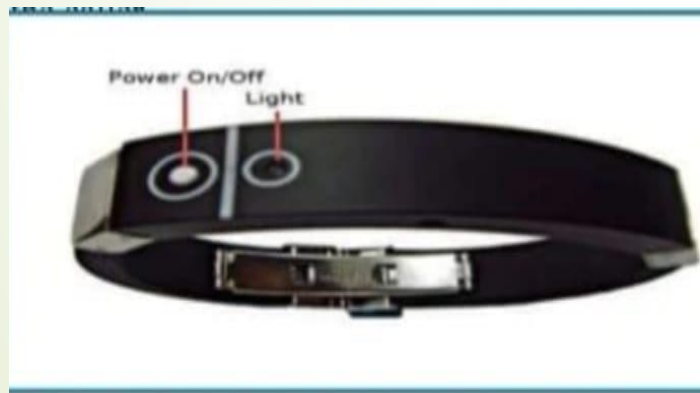
THE JAVA RING

- It seems that everything we access today is under lock and key. Even the devices we use are protected by passwords. It can be frustrating trying to keep with all of the passwords and keys needed to access any door or computer program.

- • Dallas semiconductor is developing a new Java-based, computerized ring that will automatically unlock doors and log on to computers.
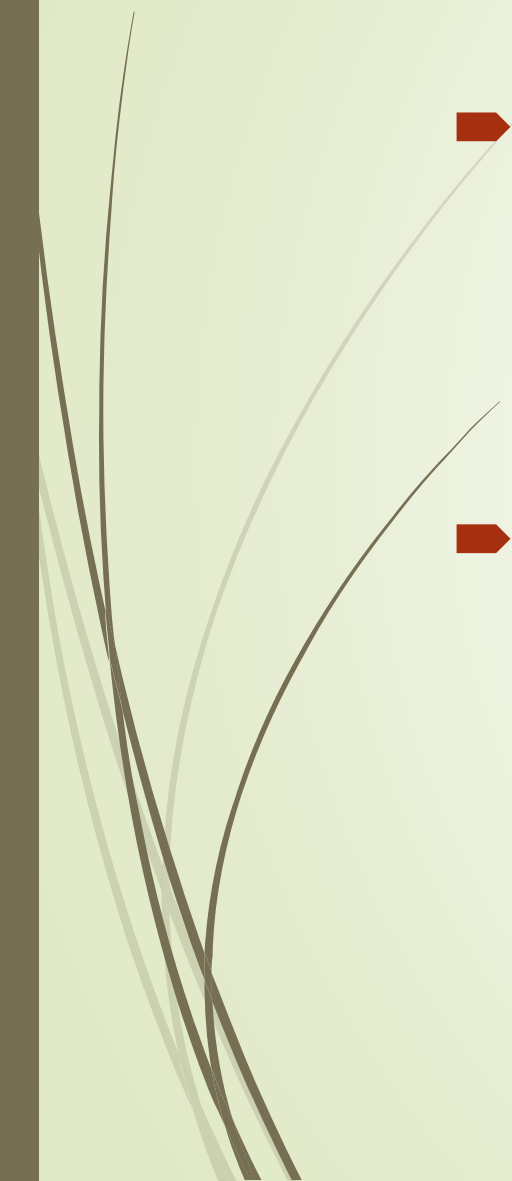
ADVANTAGES & DISADVANTAGES

- Portability:One of the most distinguishing features of a wearable computers thatat can be used while walking or moving around because of its small size

- 2. Sensors:wearable computer should have sensors for it's physical environment Such sensors might include wireless communications cameras or microphones.

- 3. User Attention FreeThis particular type of technology shall not require.

- The disadvantage is charging capabilities and cost are just a sample of problems.

CONCLUSION

- The basic idea behind the digital jewelry concept is to have the convenience of wireless, wearable computers while remaining fashionably sound.

- It is hoped to be marketable soon, however, several bugs remain. Charging capabilities and cost are just a sample of the problems that lurk

CRY ANALYZER
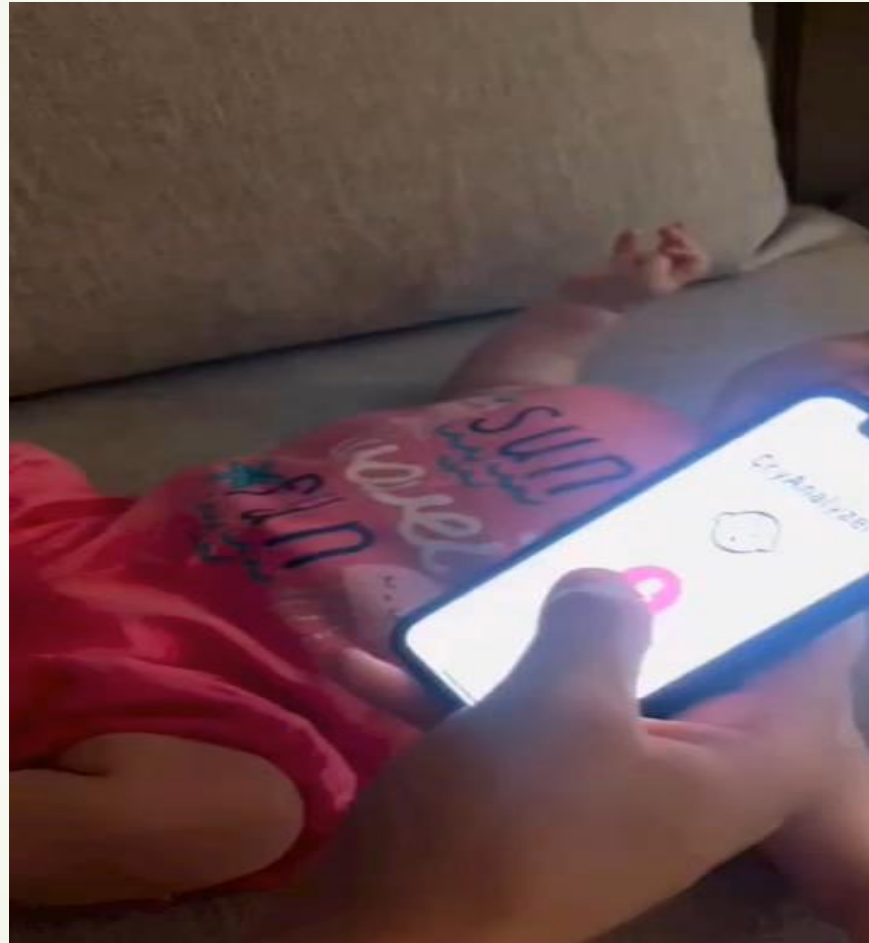
Thank you!

A.S.D GOVT DEGREE COLLEGE FOR WOMEN(A)

DEPARTMENT OF COMPUTER SCIENCE

Topic: INTERNET OF THINGS(IOT)
Name:Darapu Jayasri
Class:III BSC [MPCS]

INTRODUCTION:

▶ IOT stands for internet of things . The idea of a network of smart devices was first discussed in 1982 with a modified coca-cola vending machine at Camegie Mellon university becoming the first internet-connected appliance.

▶ A growing number of devices can connect to the internet and we call this the internet of things.

▶ We now have billons of devices connected to the internet this means everyday devices like: tooth brushes, cars, machine, and vaccums can use sensors to collect data and respond intelligently to users.

What is IOT?

▶ If you look around, you will find atleast one thing that has the ability to connect to the internet it may be your phone, It may be your laptop, Your Tv or even your fridge.

▶ Internet of things generally refers to the collection of all those devices. But now just, you can argue that anything that has the ability to connect and share data is a part of internet of things or IOT in short.

So basically we have a device that collects data from its surroundings using sensors and actuators and send this collected data to the internet where the processing of that data can happen.

There are many devices that can included in this classification An example can be phones, laptops, watches, Dvs, refrigerators, washing machines, and cars.

Whole homes themselves can be a part of IOT too.

You can easily see the trend over here most IOT devices have the word smart at the start of their names smart phones, Smart watches, Smart Dvs, Smart refrigerators.

Why do we need IOT?

It helps makes our likes easier and more comfortable. If we take an example in our daily life like smartphones.

Smartphones have more use causes that I can. You know, list here without going on for ours and ours, it can call, it can allows us to watch movies. It allows us to connect to the internet and interact with strangers, shops or things we need general entertainment.

IOT describes a global system of interconnected computing devices without any intervention from a human, The network's devices can exchange information gather data and transmit it to another location.
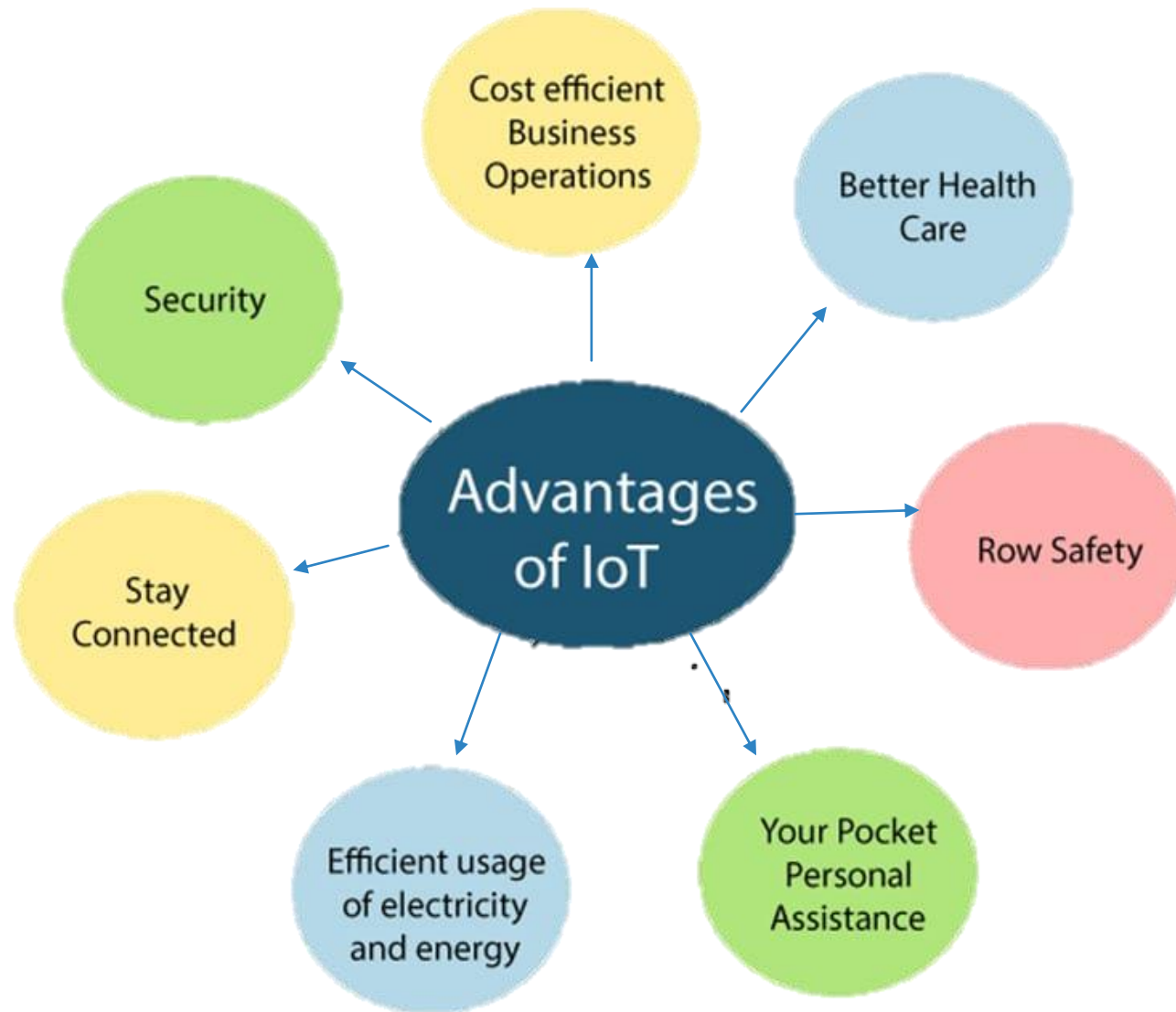
Components of IoT

- ✓ Sensors
- ✓ Connectivity
- ✓ People & processes

The main theme of IoT trends in the coming year will be the increasing ubiquity of smart devices that consumers and the average person will likely interact with on a daily basis.

In conclusion

The future of IoT is bright, with many emerging trends and applications set to transform industries and improve our daily lives.

Though the IoT is still in its early stages, it will grow rapidly in the coming years.

Technology is best when it brings people together.