

# CARBON FOOTPRINTING IN GREEN COMPUTING



*GROUP NO - 9*



# GROUP MEMBERS

*SAMI VORA (100)*

*DHARABEN PATEL (141)*

*GUNJA SINGH (88)*

*BHAVESH KUMHAR (126)*

*MANAV SHETTY (84)*

*RUPAL PATEL (59)*

*DAKSH RAI (123)*

*NIYATI SHAH (77)*

# HISTORY

- *Started in 90's*
- *Energy star program*
- *Basic use*
- *Goal*



# INTRODUCTION

## **GREEN COMPUTING**

- *Environmentally responsible*
- *Disposal of electronic waste (e-waste)*
- *Reducing environmental hazardous material*
- *sustainable resources*
- *Green computing technology*
- *stages in the lifecycle*



## ***CARBON FOOTPRINTING***

- ***Greenhouse Gases (GHG)***
- ***Global Warming***
- ***world's carbon dioxide emission percentage***
- ***important measure***
- ***Human Activities***



# TYPES OF GREEN COMPUTING

- *Solar Power System*
- *Wind Turbine Program*
- *Geothermal Power*





## GOALS OF GREEN COMPUTING

- *To minimize the implementation of hazardous products.*
- *More production of energy efficiency.*
- *To use the recyclability of wasted product and factory wasted products.*
- *To design proper algorithms for improve the computer's efficiency*



## NEED OF GREEN COMPUTING

- 1) Save energy*
- 2) Save environment*
- 3) Recycle of waste product*
- 4) Save Money*
- 5) Energy consumption*





# APPROACHES TO GREEN COMPUTING

- *Terminal Servers*
- *Power Management*
- *Power Supply*
- *Storage*
- *Product Recycling*



# ADVANTAGES

*1) Energy Saving*

*2) cost saving*

*3) Recycling Process*

*4) Brand Strengthen*

*5) Less pollution*

*6) GHG Emissions*

*7) chemical exposure*

*8) Green IT implementation*

*9) Saving energy and resources saves money*

*10) Renewable energy*

# DISADVANTAGES

*1) Implementation cost*

*2) Performance*

*3) Maintenance*

*4) Adaptation*

*5) Security leaks*

*6) IT knowledge*

*7) Support system*

*8) Green IT cause more burden to an individual*

*9) Rapid technology Change*

*10) Power Management*

# EXAMPLE

*E.g.- Renewable Energy Sources:-*

- *Renewable energy sources don't use fossil fuel. They are available freely, are environmentally friendly and generate less pollution. Apple, who is building a new corporate centre, is planning to use most of the building's wind turbine technology, and Google has already built a wind-powered data centre.*



## METHODS TO CURE CARBON FOOTPRINTING IN GREEN COMPUTING

### *Improving systems' efficiency*

- *Old PC's*
- *Outdated part and insufficient memory*
- *Upgrade the equipment*

### *Using Renewable Energy in IT*

- *Green computing Eco-friendly*
- *Carbon free computing*
- *Solar energy computing*



## FIVE WAYS TO REDUCE CARBON FOOTPRINT

- *learn the 5 R's: refuse, reduce, reuse, rot, recycle: Going zero waste is a great step towards combating climate change. ...*
- *bike more and drive less: ...*
- *conserve water and protect our waterways: ...*
- *eat seasonally, locally, and more plants: ...*
- *switch to sustainable, clean energy:*





# HOW YOU CAN SUPPORT GREEN COMPUTING

*Energy star labeled products*

*Turn off computer*

*Optimal brightness level*

*Use of IT peripherals*

*Screen Saver*

*Environmental Companies*

*Donate or Recycle*

*Both side printing*

*Sleep mode*

*Power Management*

*Use email*

*Non-petroleum inks*

*Use VoIP technology*

*Replace LCD/CRT to OLED*

*Participate recycling program*

*Green packing solution*

*Don't buy new printers*



# HOW WE CAN CALCULATE CARBON FOOTPRINT

- *Define what all thing contributes to the carbon footprint*
- *Baseline should be set*
- *Track and analyse the carbon footprint of the organization*
- *Report the result to stakeholders*



# CONCLUSION

- *Features of Green computing*
- *Society needs more consumption*
- *Alternative ways to design system*
- *Contribution to green computing*
- *Eco-friendly sustainable component*





THANK YOU