Green Computing
1. Introduction:
Green computing or green IT, refers to environmentally sustainable computing or IT. It is "the study and practice of designing, manufacturing, using, and disposing of computers, servers, and associated subsystems such as monitors, printers, storage devices, and networking and communications systems efficiently and effectively with minimal or no impact on the environment. Green IT also strives to achieve economic viability and improved system performance and use, while abiding by our social and ethical responsibilities. Thus, green IT includes the dimensions of environmental sustainability, the economics of energy efficiency, and the total cost of ownership, which includes the cost of disposal and recycling is the study and practice of using computing resources efficiently."

To comprehensively and effectively address the environmental impacts of computing/IT, we must adopt a holistic approach and make the entire IT lifecycle greener by addressing environmental sustainability along the following four complementary paths:

- Green use -- reducing the energy consumption of computers and other information systems as well as using them in an environmentally sound manner
- Green disposal -- refurbishing and reusing old computers and properly recycling unwanted computers and other electronic equipment
- Green design -- designing energy-efficient and environmentally sound components, computers, servers, cooling equipment, and data centres
- Green manufacturing -- manufacturing electronic components, computers, and other associated subsystems with minimal impact on the environment

These four paths span a number of focus areas and activities, including:
- Design for environmental sustainability
- Energy-efficient computing
- Power management
- Data centre design, layout, and location
- Server virtualization
- Responsible disposal and recycling
- Regulatory compliance
- Green metrics, assessment tools, and methodology
- Environment-related risk...