

CS8078 GREEN COMPUTING

DETAILED SYLLABUS

OBJECTIVES:

- To learn the fundamentals of Green Computing.
- To analyze the Green computing Grid Framework.
- To understand the issues related with Green compliance.
- To study and develop various case studies.

UNIT I FUNDAMENTALS

Green IT Fundamentals: Business, IT, and the Environment – Green computing: carbon foot print, scoop on power – Green IT Strategies: Drivers, Dimensions, and Goals – Environmentally Responsible Business: Policies, Practices, and Metrics.

UNIT II GREEN ASSETS AND MODELING

Green Assets: Buildings, Data Centers, Networks, and Devices – Green Business Process Management: Modeling, Optimization, and Collaboration – Green Enterprise Architecture – Environmental Intelligence – Green Supply Chains – Green Information Systems: Design and Development Models.

UNIT III GRID FRAMEWORK

Virtualization of IT systems – Role of electric utilities, Telecommuting, teleconferencing and teleporting – Materials recycling – Best ways for Green PC – Green Data center – Green Grid framework.

UNIT IV GREEN COMPLIANCE

Socio-cultural aspects of Green IT – Green Enterprise Transformation Roadmap – Green Compliance: Protocols, Standards, and Audits – Emergent Carbon Issues: Technologies and Future.

UNIT V CASE STUDIES

The Environmentally Responsible Business Strategies (ERBS) – Case Study Scenarios for Trial Runs – Case Studies – Applying Green IT Strategies and Applications to a Home, Hospital, Packaging Industry and Telecom Sector.

TEXT BOOKS:

1. Bhuvan Unhelkar, —Green IT Strategies and Applications-Using Environmental Intelligencell, CRC Press, June 2014.
2. Woody Leonhard, Katherine Murray, —Green Home computing for dummiesll, August 2012.

REFERENCES:

1. Alin Gales, Michael Schaefer, Mike Ebbers, —Green Data Center: steps for the Journeyll, Shroff/IBM rebook, 2011.
2. John Lamb, —The Greening of ITll, Pearson Education, 2009.

Diploma, Anna Univ UG & PG Courses

Notes
Syllabus
Question Papers
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Available @

www.AllAbtEngg.com

3. Jason Harris, —Green Computing and Green IT- Best Practices on regulations & industryll, Lulu.com, 2008
4. Carl speshocky, —Empowering Green Initiatives with ITll, John Wiley & Sons, 2010.
5. Wu Chun Feng (editor), —Green computing: Large Scale energy efficiencyll, CRC Press