

I-Year, II-Semester

L T P Credits: 4
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CH562 ENVIRONMENTAL FOOD TECHNOLOGY

UNIT-I

Waste & its consequences in pollution and global warming, Types of food processing wastes & their present disposal methods.

UNIT-II

Treatment of plant waste by physical, chemical and biological methods, Effluent treatment plants, Use of waste and waste water.

UNIT-III

Types, availability and utilization of by-products of cereals, legumes & oilseeds, Utilization of by-products from fruits and vegetables processing industries, sugar and agro based industries, and brewery & distillery waste.

UNIT-IV

Status and utilization of dairy by-products i.e. whey, buttermilk and ghee residues, Availability & utilization of by-products of meat industry, poultry industry and fish processing units.

UNIT-V

Biomethanation and biocomposting technology for organic waste utilization, incineration & efficient combustion technology, Integration of new and renewable energy sources for waste utilization.

Text Books:

1. Beggs C. Energy Management and Conservation. Elsevier Publ.
2. Chaturvedi P. 2000. Energy Management: Challenges for the Next Millennium.
3. Energy Conservation through Waste Utilization. American Society of Mechanical Engineers, New York.
4. Kreit F & Goswami DY. 2008. Energy Management and Conservation Handbook. CRC Press.
5. Murphy WR & Mckay G. 1982. Energy Management. BS Publ.
6. Patrick DR. 1982.. Energy Management and Conservation. Elsevier Publ.
7. Patrick DR., Fardo SW, Richardson RE & Steven Patrick DR. 2006.
8. Energy Conservation Guidebook. The Fairmont Press.
9. Wulfinghoff DR. Energy Efficiency Manual. Energy Institute Press.