14P1WPH112Advances in Ferrites

Subject Code	14P1WPH112	
Credits	3	Contact Hours:03

Module No.	Subtitle of the Module	Topics
1.	Crystal Structure of Ferrites	Classes of Crystal Structures in Ferrites, Hexagonal Ferrites, Magnetic Rare Earth Garnets.
2.	Chemical Aspects of Ferrites	Intrinsic and Extrinsic Properties of Ferrites, Magnetic Properties Under Consideration, Mixed Ferrites for Property Optimization, Temperature Dependence of Initial Permeability,Time Dependence—Initial Permeability, Chemistry Dependence—Low Field Losses, Chemistry Considerations for Hard Ferrites.
3.	Ferrite Processing	Powder Preparation—Raw Materials Selection, Nonconventional Processing, Nanocrystalline Ferrites, Powder Preparation of Microwave Ferrites, Hard Ferrite Powder Preparation.
4.	Applications of Ferrites:	Magnetostatics, magnetism of electrons (all types), nanoscale magnetism, spin electronics and magnetic recording, Applications

Recommended Reading (Books/Journals/Reports/Websites etc.: Author(s), Title, Edition, Publisher, Year of Publication etc. in IEEE format)	
1.	Modern Ferrite Technology by Alex Goldman
2.	Ferrites by J Smit & H.P.J. Wjin