

**MAR GREGORIOS COLLEGE OF ARTS & SCIENCE**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION SCIENCE**  
**ACADEMIC YEAR 2020-2021**

**Add- On Course**  
**Electronic Waste Management system**  
**Duration 4 weeks with 32 hour**

**SYLLABUS**

**Week 1: Overview of the course**

**Week 2: Exposure pathway of pollutants emitted from Recycling of E-Waste**

**Week 3: E-Waste Management Rules of India (2011 and 2016 Rules)**

**Week 4: E-waste Management: Case Studies and Unique Initiatives from around the World**

**Unit 1**

**Electronic Waste Management in India Overview**

E-Waste recyclers in India -Digital India -Initiative Corporate Management Plans  
Electronic Waste Management -Global Issues including Exports to Poor Countries -  
Environmental and Public Health Issues of Electronic Waste Management

**Unit 2**

**Exposure pathway of pollutant emitted from Recycling of E-Waste**

Quantification of Pollutants in Dust, Air and Water -Risk Assessment  
(According to USEPA method) of Recycling of E-Waste -Recovery of Valuable Rare-Earth  
metals from E-Waste

**Unit 3**

**E-Waste Management Rules of India (2011 and 2016 Rules)**

E-waste Regulations from around- the World (European, North America  
Etc.) WEEE rules, EPR concepts, Compare and Contrast with Indian E-waste rules

**Unit 4**

**E waste Management: Case Studies and Unique Initiatives from around the World**

Concept of Life Cycle- Analysis and Sustainable Engineering especially from an Electrical and  
Electronics industry Perspectives -Socio-Economic Life Cycle Analysis (SLCA) of E-Waste  
management in Developing countries.