**13EC42E1 CONSUMER AND ENTERTAINMENT ELECTRONICS ENGINEERING**

 Credits: 4
Hours /week: 4 Hrs Sessional Marks: 40
Univ.Exam.Duration: 3Hrs Univ.Examination.Marks: 60

**UNIT I**

**INTRODUCTION** :Review of Electronics circuits, Microprocessor/microcontrollers and interfacing,Digital signal Processing, Embedded systems, PC interfacing Product Design fundamentals- Identifying Customer needs –Product specification – Product architecture- Industrial design- Managing projects.

**UNIT II**

**HOME ENTERTAINMENT:**Home Gateway, DTV, DVB, Home Theatre, Games systems, Advanced DVD

and CD, HDTV and Flat panel, 3D TV Technologies, Set top Box, Internet TV,Home Networking in Embedded Devices.

**UNIT III**

**MOBILE COMPUTING AND COMMUNICATION:**Handheld and wearable computers, AV streaming to handheld devices, Smart Antennas

**UNIT IV**

**AUTOMOTIVE ENTERTAINMENT AND INFORMATION:** Navigation, Driver assistance, sensors and control

**UNIT V**

**ENABLING TECHNOLOGIES :**Power and batteries, Human computer Interface, compliance testing - EMC/RFI,Environmental, Special needs and assistive technologies, Standards, Quality,Reliability prediction and Engineering.

**TEXT BOOKS:**

1.Consumer Electronics for Engineers by Philip Hoff ,Cambridge University Press ISBN 0 521 58207

 5

**REFERENCES:**

1. Product Design and development Karl T Ulrich Steven D Eppinger Tata

 McGraw Hill ISBN 0 07 058513 X 2003

2. Hardware Bible by Winn Rosch Techmedia publications ISBN 81 87105 23 2

3. The students must be directed to build ideas based on various web search:

 Typically :www.icce.org