Course Number and Name
BEC604 - COMMUNICATION ENGINEERING - II

Credits and Contact Hours
3 and 45

Course Coordinator’s Name
Mr R.Mohanraj

Text Books and References

TextBook:

References:
3. www.scribd.com

Course Description

- To learn and understand fundamental concepts of communication systems.
- The process of sampling, quantization and coding that are fundamental to the digital transmission of analog signals and digital modulation systems.
- Baseband and passband transmission systems.
- M-ary signaling and spread spectrum Techniques.

Prerequisites

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Co-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Engineering-I</td>
<td>Nil</td>
</tr>
<tr>
<td>required, elective, or selected elective (as per Table 5-1)</td>
<td>required</td>
</tr>
</tbody>
</table>

Course Outcomes (COs)

CO1: Students will learn about the basic concepts of Sampling, basic concepts of baseband transmission of binary data
CO2: They gain knowledge about basics of digital modulation techniques.
CO3: They can understand the concepts of spread spectrum digital communication system
CO4: To provide in-depth analysis of noise performance in various receivers
CO5: Design basic communication systems
CO6: To understand the basic concepts of analog pulse modulation techniques

Student Outcomes (SOs) from Criterion 3 covered by this Course

<table>
<thead>
<tr>
<th>COs/SOs</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
<th>f</th>
<th>g</th>
<th>h</th>
<th>i</th>
<th>j</th>
<th>k</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO1</td>
<td>H</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>H</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO2</td>
<td>M</td>
<td>M</td>
<td>H</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>H</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO3</td>
<td>M</td>
<td>M</td>
<td>H</td>
<td></td>
<td>M</td>
<td>M</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO4</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td></td>
<td>M</td>
<td>M</td>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO6</td>
<td>L</td>
<td>H</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M</td>
</tr>
</tbody>
</table>
List of Topics Covered

UNIT I  SAMPLING AND QUANTIZATION  9

UNIT II  DIGITAL MODULATION  9

UNIT III  BASE BAND PULSE TRANSMISSION  9

UNIT IV  PASS BAND DATA TRANSMISSION  9

UNIT V  M-ARY SIGNALING AND INTRODUCTION TO SPREAD SPECTRUM TECHNIQUES  9