SPECTRAL ANALYSIS FOR SIGNAL PROCESSING
(Elective Subject)

<table>
<thead>
<tr>
<th>Course Code:</th>
<th>16B1WEC832</th>
<th>Semester:</th>
<th>8th Semester, B. Tech (ECE)</th>
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</thead>
<tbody>
<tr>
<td>Credits:</td>
<td>3</td>
<td>Contact Hours:</td>
<td>L-3, T-0, P-0</td>
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**Pre-requisites:** Signals & Systems, Digital Signal Processing

**Course Objectives:**

The objective of this course to provides well understanding of the spectral methods for signal processing

**Course Outcomes**

After the study of this course students will be able to:

1. Understand the spectral analysis of the signals.
2. Understand the basics difference between parametric and non-parametric methods of spectral analysis.
3. Familiar with the basics concept of filter bank method for spectral analysis.
4. Understand the basic concept of the spatial methods for spectral analysis of signals.

**Course Contents :**

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<tr>
<th>Unit</th>
<th>Topics</th>
<th>Text book</th>
<th>Lectures</th>
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</table>
| 1    | Basic Concepts
| 2    | Nonparametric Methods
<table>
<thead>
<tr>
<th>Lecture</th>
<th>Topic</th>
<th>References</th>
<th>Credits</th>
</tr>
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<tr>
<td><strong>Total Lecture Hours</strong></td>
<td></td>
<td></td>
<td>42</td>
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Evaluation Scheme

1. Test 1 : 15 marks
2. Test 2 : 25 marks
3. Test 3 : 35 marks
4. Internal Assessment : 25 marks
   1. 10 Marks : Class performance, Tutorials & Assignments
   2. 10 Marks : Quizzes
   3. 5 marks : Attendance

Text Books

3. P. Stoica, and Randolph Moses “Spectral analysis of signals” PHI, Publishers

Reference Book