EE6203 COMPUTER CONTROL SYSTEMS

Acad Unit: 3.0  
Prerequisite: NIL  
Effective: Acad Year 2000-2001  
Last update: 20 March 2000

OBJECTIVE

Practically all control systems that are implemented today are based on computer control. It is therefore important to understand computer-controlled systems well. The purpose of the course is to provide a thorough background for understanding, analyzing and designing of computer-controlled systems. The objectives include equipping students with the control theory that is relevant to the analysis and design of computer-controlled systems. Topics such as time-domain analysis, frequency domain analysis, state-space analysis will be covered. The design and implementation issues of computer-controlled systems will also be extensively discussed.

DESIRED OUTCOME

On completion of the course, the students should be able to understand specific theories of computer-controlled systems, carry out the design of controllers to meet desired performance specifications through various design techniques such as the frequency and state-space approaches, understand practical implementation techniques and considerations from a software and hardware point of view.

OTHER RELEVANT INFORMATION

A background with a fundamental course on continuous-time control systems is desirable.

CONTENT


ASSESSMENT SCHEME

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Assessment</td>
<td>20%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>80%</td>
</tr>
</tbody>
</table>

TEXTBOOK


REFERENCES