**BBE 4101 Signal Processing and Analysis**

Course content

Digital signals and systems-The z transform-Fourier transform and the discrete Fourier transform - Computation of the fast Fourier transform - Discrete random signals-Power spectrum estimation- Design of digital filters Signal analysis - Review of probability theory - Characterization of random signals-Transmission and filtering of random signals - Analog data communication: modulation - Digital data communication: signal detection - Introduction to information theory and coding.

Requirements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Hours per Semester | Weighted TotalMark | WeightedExam Mark | WeightedContinuousAssessment Mark | CreditUnits |
| LH | PH | TH | CH | WTM | WEM | WCM | CU |
| 45 | 00 | 00 | 45 | 100 | 60 | 40 | 3 |