EIC-501

UNIT-5 (Lecture-1)

Frequency Domain Analysis

CONTROL SYSTEM-I

Performance Specification In the Frequency Domain





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CONTROL SYSTEM-I EIC-501 Performance Specification In the Frequency Domain



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CONTROL SYSTEM-I EIC-501 Performance Specification In the Frequency Domain

w := 4

Given

Finding the Resonance Frequency

 $20\log(|T(w)|) = 5.282$

wr := Find(w) wr = 0.813

Mpw := 1

Given

 $20\log(Mpw) = 5.282$

Finding Maximum value of the frequency respo

Mpw := Find(Mpw)





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Performance Specification In the Frequency Domain

Assume that the system has dominant second-order roo



CONTROL SYSTEM-I

Performance Specification In the Frequency Domain



CONTROL SYSTEM-I

Performance Specification In the Frequency Domain

$$GH1(\omega) = \frac{5}{j \cdot \omega \cdot (0.5 j \cdot \omega + 1) \cdot (j \cdot \frac{\omega}{6} + 1)}$$



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