INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY
THIRUVANANTHAPURAM 695 547

B.Tech (Electronics and Communication Engg)-Assignment-2, 18th April 2023

AV224 – Control Systems
Max. Marks: 10

1. The open loop transfer function of a conditionally stable LTI system is given by,
$$G(s)H(s) = \frac{K(s+1)}{s(s-1)(s^2+4s+16)}$$
   Draw the root locus plot for the closed loop system by applying all the relevant rules and find the range of gain, K for stability.

2. Draw the Nyquist plot for the above system and find the range of gain, K for stability.

(5+5 marks)

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