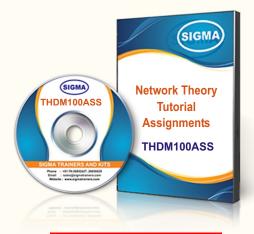


## CONTROL SYSTEMS TUTORIAL ASSIGNMENTS

**MODEL - CNT100ASS** 

This Software trainer provides Control System Tutorial Assignments.



## **SPECIFICATIONS**

1. Books for Control System Lab : 10 Nos in pdf Format

2. Mp4 Video Class for Control System Lab : 40 Classes in Mp4 on Pen Drive

## **EXPERIMENTS**

- 1. Find overall transfer function of the system using block diagram algebra.
- 2. Find determine the stability of a system using Routh Hurwitz Criterion, marginal value of K and frequency of sustained oscillations.
- 3. Construct the root locus and comment on the stability.
- 4. Find the time domain specifications of the given system.
- 5. Find the steady state error and error coefficients of the type 0, 1 and 2 systems for step, ramp and parabolic inputs.
- 6. Find frequency domain specifications of the system.
- 7. Draw Bode Plot, find PM and GM and Comment on the stability. Also, find transfer function of the system from given Bode plot.
- 8. Find stability of the system using Nyquist Criteria.
- 9. Write State space model of the system and solution.
- 10. Find State Transition Matrix for given system and verify the properties of the same.
- 11. Find the Transfer Function of a Digital System.
- 12. Find the response of first and second order Digital Systems for Step Input.
- 13. Study the Digital PID Controller with reference to response time, steady state error

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