Code Documentation
Rev 19 Feb 2017

Infinite horizon Example

Inf_horiz.m - shows computation of gain for infinite horizon problem using LQR() and sets workspace for simulink file which follows:

inf_horiz_sml.mdl – simulation to illustrate time trajectory and computation of cost function - note you need to set simulation time very long so that the PI from simulation matches off line computation

Finite horizon simulation

- **Riccati_sol.m**
  - Code to solve riccati equation as discussed in Week 7 Part 3 pg 7 and 8

  Riccati_sol2.m
  - Same as Riccati_sol.m but includes set up for use with Simulink file **ct_finite_horizon.mdl**

ct_finite_horizon.mdl - Simulink file for trajactories and cost for finite fhorzon

Additional infinite horizon example

- file_for_LQR_EX.m mfile
- LQR_EX.mdl - Simulink with state feedback and phase plane display
- LQR_EXwithPI.mdl - Simulink file including computation of Performance Index

Using look up table – should help understand finite horizon mdl

- LUT_hint.m - shows how to set up in workspace
- LUT_Hints.mdl shows setup for look up table in Simulink