Code Description revised 5 Feb 2016

Run mfile: **consolidated\_models.m** to place parameters and matrices into the workspace

**Consolidate\_state\_feedback.mdl** - model of original system using state space construct in Simulink and the system with state feedback

**Consolidate\_Observer.mdl** - model of original system using state space construct in Simulink. Note C is set to identify and D is set to zero, The C matrix is outside the ss construct. System uses an observer **also implemented with ss construct.**

**Consolidate\_Observer\_based\_state\_feedback.mdl** - model observer based state feedback

**Consolidate\_Observer\_based\_state\_feedback\_xfer.mdl** model observer based state feedback modified to use linmod()

>> [AA, BB, CC, DD] = linmod('Consolidate\_Observer\_based\_state\_feedback\_xfer');

>> zpk(minreal(ss(AA, BB, CC, DD)))

2 states removed.

ans =

1

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(s+25) (s+20)

Continuous-time zero/pole/gain model.