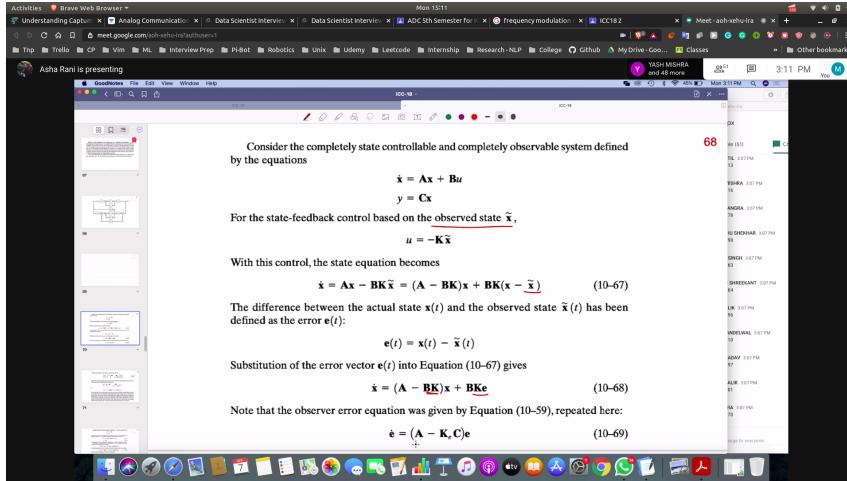
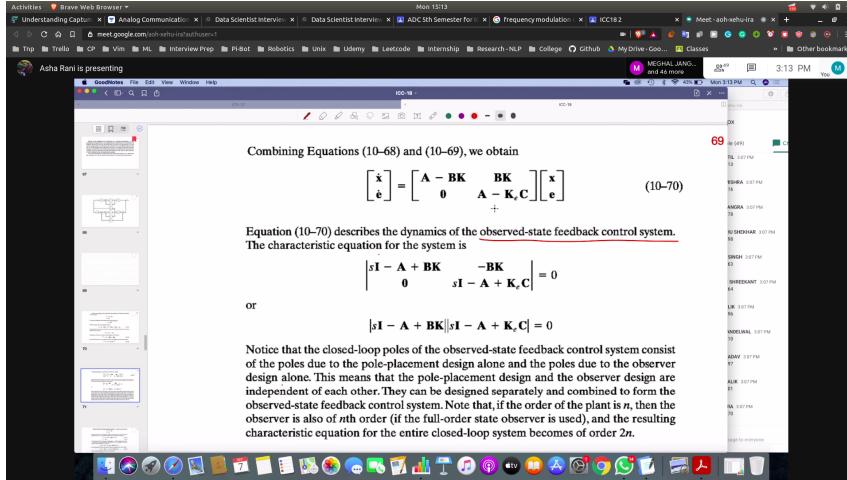


Effect of Adding an Observer

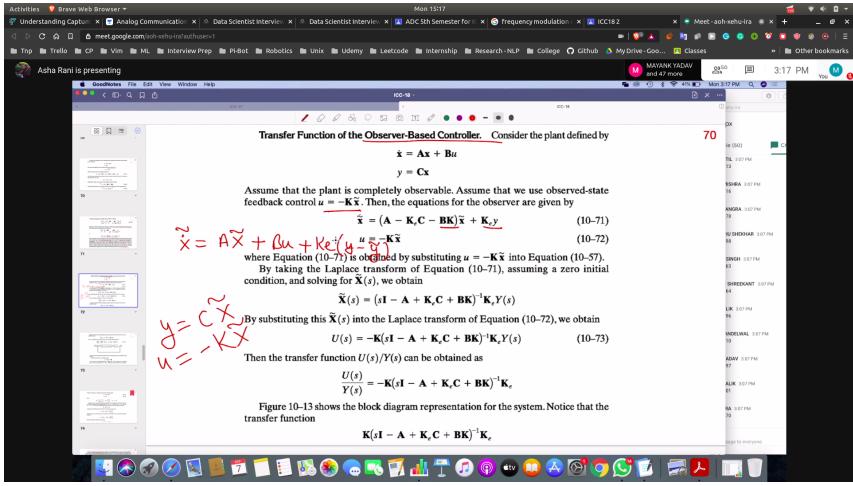


Observer Based Controller

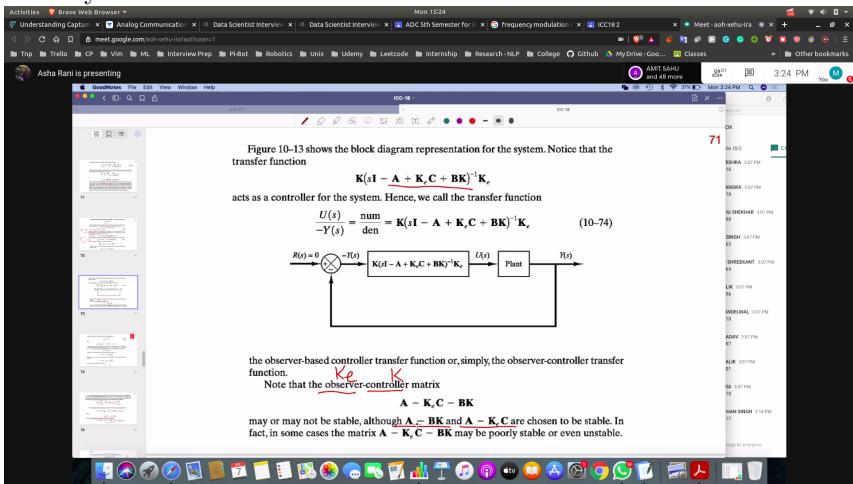
- this system is called observed state feedback control system



- tf for the new system

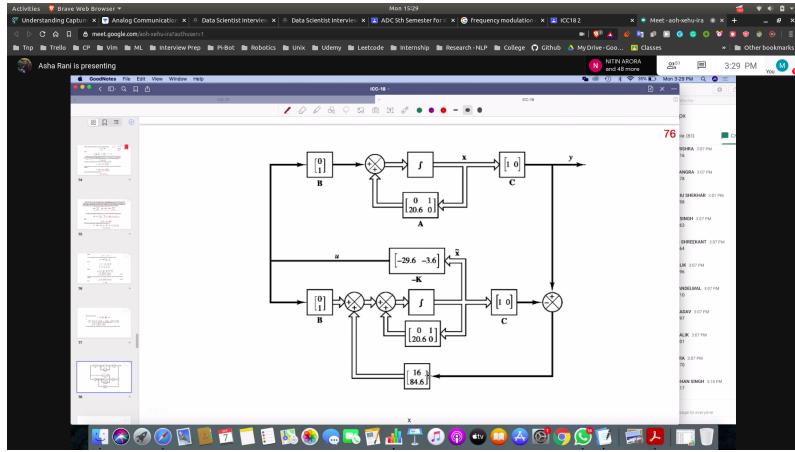


- stability

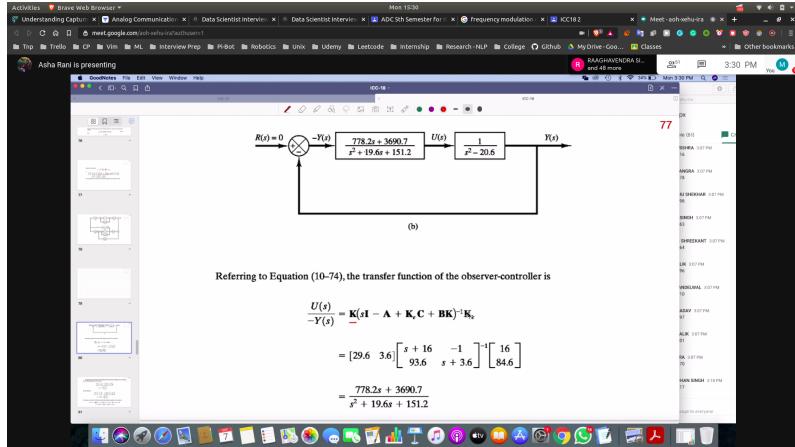


- #### Process

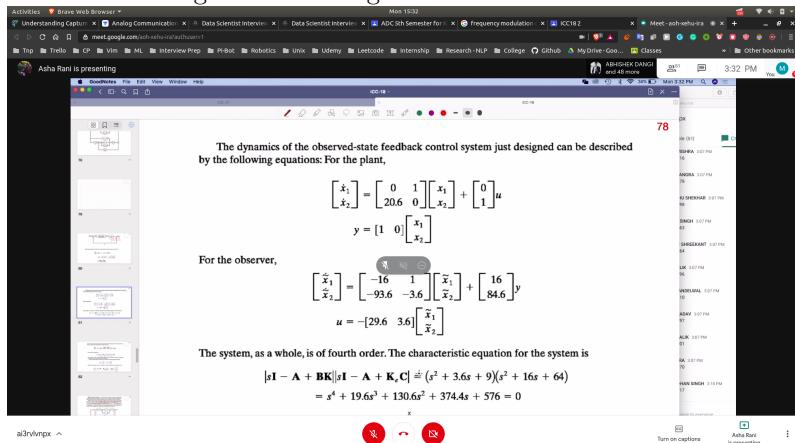
- calc observer gain matrix
- then get the \tilde{x} matrix ==> observable matrix
- get the block diagram



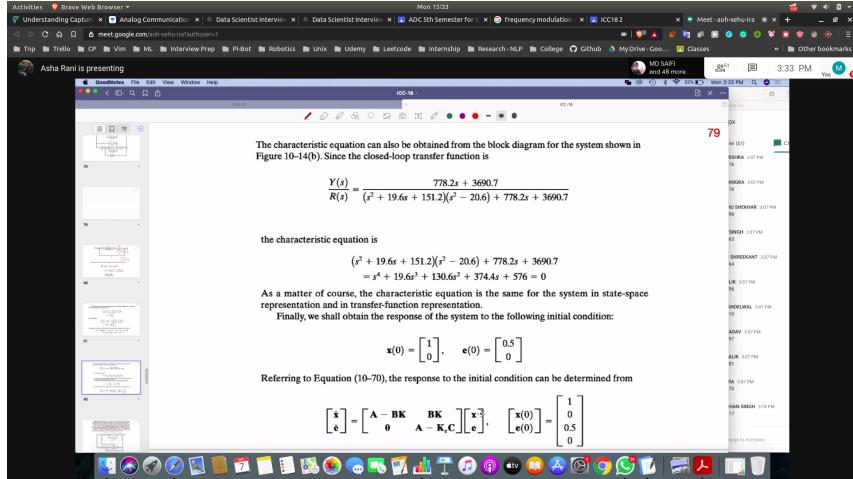
- get the observer-controller TF



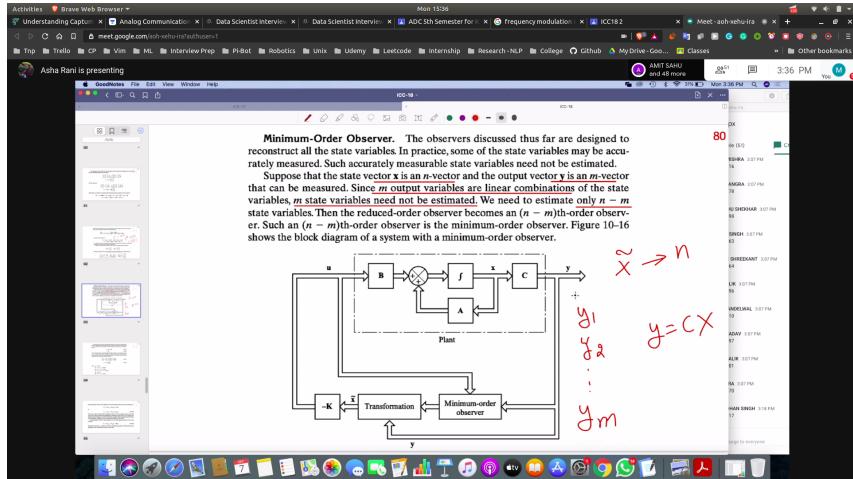
- char eqn of the entire system
 - can also do using the block diagram

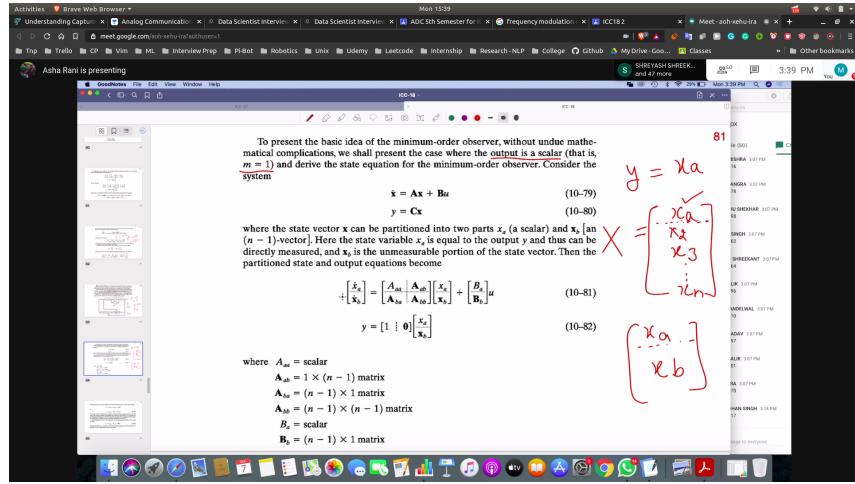


Response to init conditions



Minimum Order Observer





Min vs Full

