

Name: _____

CSE 634

Computer Vision for HCI

AU'11

Homework Assignment #7

Due: Tuesday 11/15

- 1) Using the data (kfddata.txt) provided on the WWW site, run the discrete Kalman filter to estimate the mean of the 1-D data (as in the class notes), and report the final estimated state mean (the estimated value of the constant value) and variance of the model (\hat{x} , P). Use the following values for your algorithm. [5 pts]

```
%% state equation
G = [1]; % state update
Q = .001; % process noise variance
```

```
%% observation equation
H = [1]; % transformation
R = .05; % observation noise variance
```

```
%% initial guesses
x = 0; % initial state guess
P = [1]; % initial state error variance guess
```

- 2) Turn in all code, printouts of images, and discussion of results. Make a HW6.m script to do the above tasks and call needed functions. Email your code to the grader. [2 pts]