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#"k" is concidered as the time slots for the Mapper and Reducer Max value update
k = {0, 40, 80, 120, 160, 200, 240}

#delta k is the different in the time frames between two readings

delta k = 40

#u(k) considered as percentage of job completed by Mapper divided by 10
uWave(k) = {0.8, 2.2, 4.2, 6.5, 8.7, 10.0}

#p(k) considerd as Job Execution Rate from the values

pWave(k) = (uWave(k)/(delta k))*6

pWave(k) = {0.1200, 0.3300, 0.6300, 0.9750, 1.3050, 1.5000}

#Linear Function: p(k+1) = a*p(k) + b*u(k)

p(k+1) = { 7600, 20900, 39900,

Mean input and output:
uDash = .54
pDash = .81

Values of Si Estimates for the Data
S = {1.0112, 2.1443, 11.2305, 0.8111, 2.5900}

Parameter a and b calculation:

a = (S(3)*S(4)-S(2)*S(5))/(S(1)*S(3)-(S(2))^2);
b = (S(1)*S(5)-S(2)*S(4))/(S(1)*S(3)-(S(2))^2);

a = 0.5261

b = 0.1302

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pHat =
  -0.4229 -0.2942 -0.1103 0.1011 0.6900

Final Data Table:

k	uWave(k)	pWave(k)	u(k)	p(k)
40	.08	.12	-0.46	-0.69
80	2.2	.33	-0.32	-0.48
120	4.2	.63	-0.12	-0.18
160	6.5	.975	0.11	0.165
200	8.7	1.305	3.3	0.495
240	10.0	1.5	4.6	0.69

Final Graph: