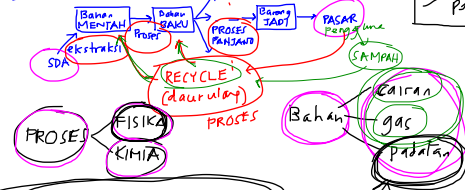


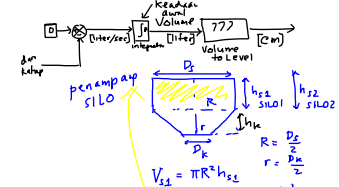
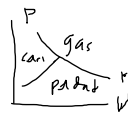
Teknologi Kendali Proses (Process Control Technology)

PROSES di industri manufaktur:



* Project 1 → Alat-nya pada Anda
* Project 2 → Batubara

fokus
SIMULINK & MATLAB
2 org → 1 laporan
Bab I Project 1
Bab II Project 2



$V_{s2} = \pi R^2 h_{s2}$
 $V_k = \text{Volume kerucut besar} - \text{Volume kerucut kecil}$

$$\frac{h+x}{h_k+x} = \frac{r}{R} \rightarrow r = \frac{R(h+x)}{h_k+x}$$

Volume kerucut besar = $\frac{1}{3} \pi R^2 (h+x)$
Volume kerucut kecil = $\frac{1}{3} \pi r^2 x$
 $V_k = \frac{1}{3} \pi R^2 (h+x) - \frac{1}{3} \pi r^2 x$

$V_{in} \leq V_k$



$$\frac{h+x}{h_k+x} = \frac{r}{R}$$

$$V_{ij} = \frac{1}{3} (h+x) \pi R^2 - \frac{1}{3} x \pi r^2 \rightarrow h = \dots \dots \dots$$

* P.R: 1) Ukur R, r, h_k, h_s1 dan h_s2 → Pak Budi!
2) Selesaikan persamaan h = ... untuk $V_{in} \leq V_k$

1) Hubungi Pak Budi

$$\frac{(h+x)}{h_k+x} = \frac{r}{R} \rightarrow r = \frac{R(h+x)}{h_k+x}$$

$$V_{in} = \frac{1}{3} (h+x) \pi \left[\frac{R(h+x)}{h_k+x} \right]^2 - \frac{1}{3} x \pi r^2$$

$$3V_{in} + x \pi r^2 = \frac{\pi R^2}{(h_k+x)^2} (h+x)^3$$

$$(h+x)^3 = \frac{(h_k+x)^2 (3V_{in} + x \pi r^2)}{\pi R^2}$$

$$h = \left[\frac{(h_k+x)^2 (3V_{in} + x \pi r^2)}{\pi R^2} \right]^{1/3} - x$$

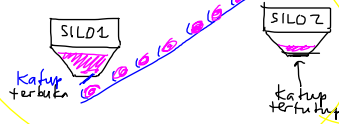
check:

$$V_{in} = V_k \text{ maka } h = h_k$$

Hitung V_{max} SILO 1

$$= V_{s1} + V_k$$

* Project 1



Material di SILO 1 dipindahkan ke SILO 2 melalui conveyor

* Project 2

