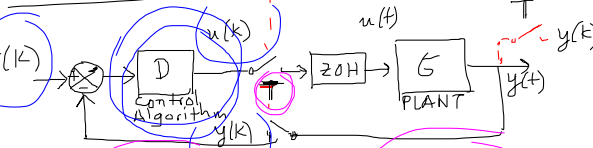


Catatan:
Dalam tabel trans? " k " $\rightarrow$ " n "

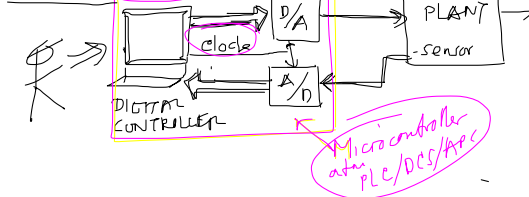
t	k	$r(k)$	$u(k)$	$y(k)$
0	0	$r(0)$	$u(0)$	$y(0)$
T	1	$r(1)$	$u(1)$	$y(1)$
2T	2	$r(2)$	$u(2)$	$y(2)$
3T	3	$r(3)$	$u(3)$	$y(3)$
kT	k	$r(k)$	$u(k)$	$y(k)$

Transformasi z
Prof Raga Azzi

Model Matematis



Model Fisik



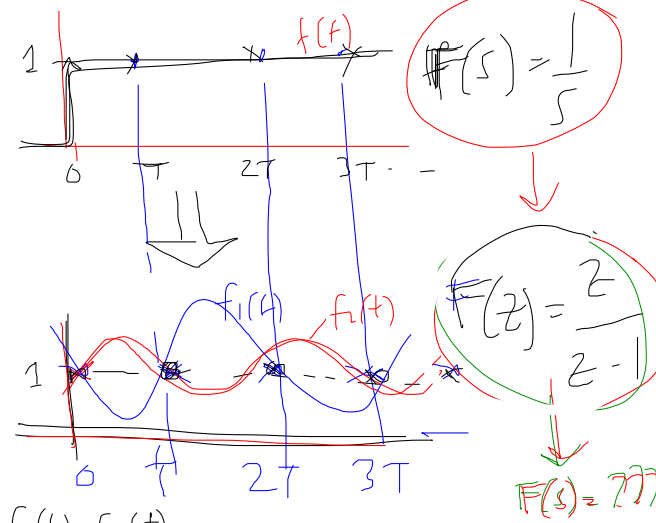
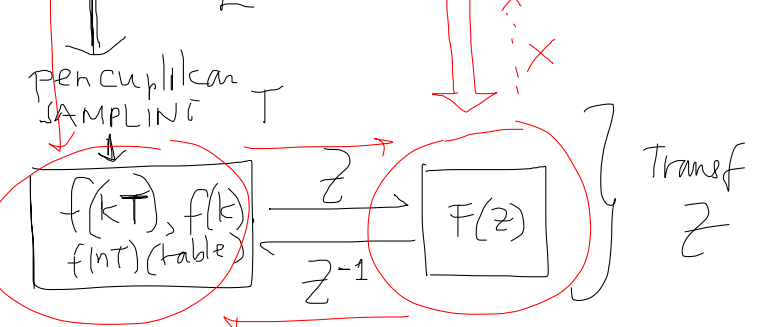
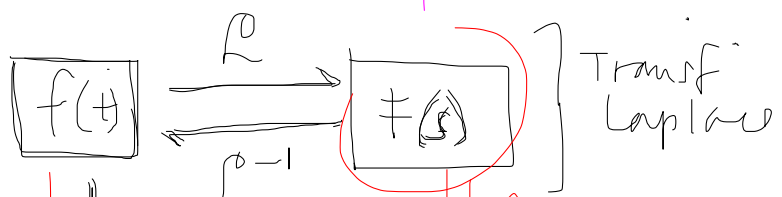
Isyarat:

$$\begin{aligned} R(z) &= \sum r(k) \\ U(z) &= \sum u(k) \\ Y(z) &= \sum y(k) \end{aligned}$$

Nilai bali Alih:

$$\begin{aligned} D(z) &= \sum D \text{ (program)} \\ G(z) &= \sum G(s) \text{ (plant)} \end{aligned}$$

dengan ZOH



Contoh: * Isyarat denget satuan
 $f(t) = \delta(t) \rightarrow$ "dicuplik" menjadi
 $f(k) = \begin{cases} 1, & k=0 \\ 0, & k \neq 0 \end{cases}$
 Maka $F(z) = \sum f(k) = 1$

$f_1(t), f_2(t), f_3(t) \dots$ mempunyai $F(z) = \frac{z}{z-1}$ yang sama
 $f(k) = \begin{cases} 1, & k=0 \\ 0, & k \neq 0 \end{cases}$
 Jika $f(k)$ ditunda, $f(k) = \begin{cases} 1, & k=1 \\ 0, & k \neq 1 \end{cases}$
 $F(z) = z^{-1} = \frac{1}{z}$

