* Tanggapan dan Kestabilan ←

Pers. Keadaan : $\dot{x} = Ax + Bu$

→ pers. differensial :

$$\frac{dx(t)}{dt} = Ax(t) + Bu(t)$$

diperoleh :

→ $x(t)$ = solusi pers. differensial

jika diketahui $x(0) = X_0$

Kasus
$u(t) = 0$ → solusi "khusus" $x(t)$
$u(t) \neq 0$ → solusi $x(t)$ → TANGGAPAN
atau RESPONSE thd $u(t)$

Skalar : $\frac{dx(t)}{dt} = a\,x(t)$, $x(0) = X_0$

a = skalar
$x(t)$ = isyarat fungsi