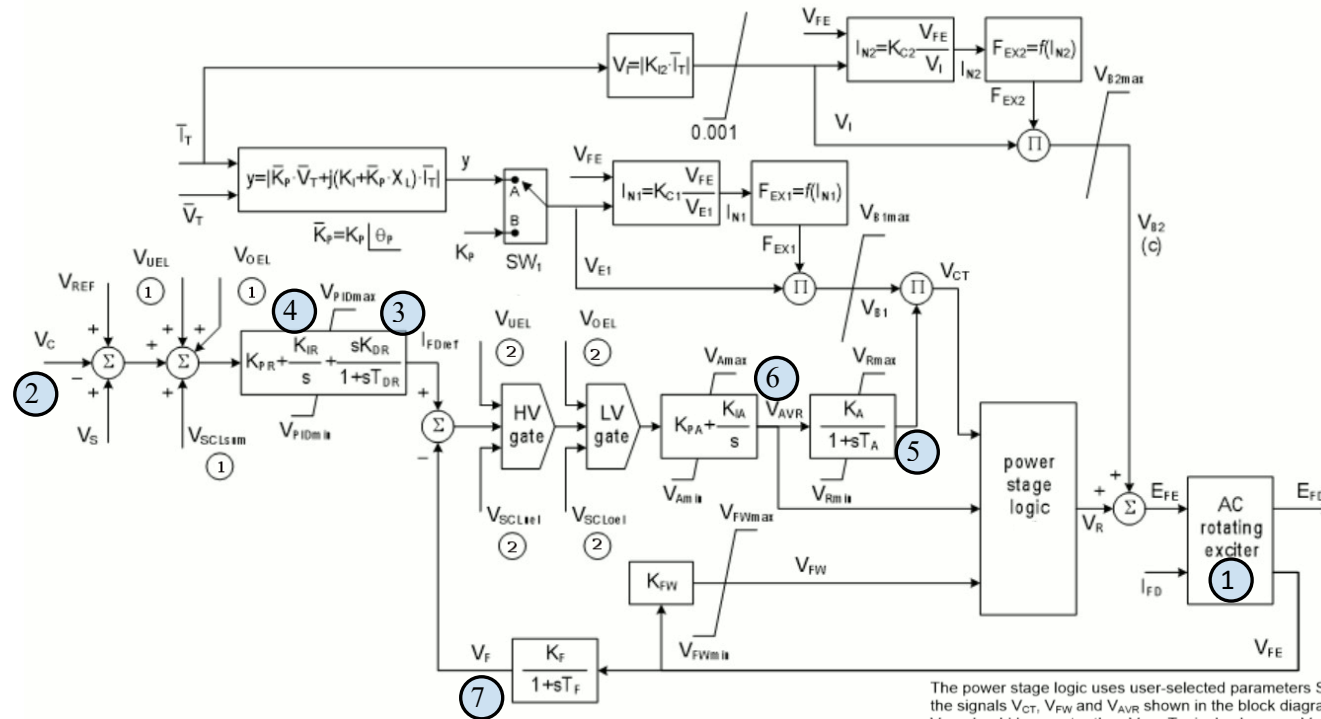


Exciter AC9C

Exciter AC9C IEEE Std 421.5-2016 Exciter type AC9C



States:

- 1 – V_E
- 2 – Sensed V_T
- 3 – Derivative
- 4 – Integral
- 5 – V_R
- 6 – V_{AVR}
- 7 – V_F or Feedback

alternate
OEL input
locations
(V_{OEL})

- (1) summation point
- (2) take-over

alternate
UEL input
locations
(V_{UEL})

- (1) summation point
- (2) take-over

alternate
SCL input
locations
(V_{SCL})

- (1) summation point
- (2) take-over

The power stage logic uses user-selected parameters S_{CT} , V_{lim1} and V_{lim2} , and the signals V_{CT} , V_{FW} and V_{AVR} shown in the block diagram. The parameter V_{lim1} should be greater than V_{lim2} . Typical values are $V_{lim1}=0$ and $V_{lim2}=-0.1$ pu.

```

IF  $S_{CT} \neq 0$  (this represents a thyristor bridge)
   $V_R = V_{CT}$ 
ELSE (this represents a chopper converter)
  IF  $V_{AVR} > V_{lim1}$ 
     $V_R = V_{CT}$ 
  ELSE
    IF  $V_{AVR} > V_{lim2}$ 
       $V_R = 0$ 
    ELSE
       $V_R = -V_{FW}$ 
    ENDIF
  ENDIF
ENDIF

```

AC Rotating Exciter

AC Rotating Exciter
AC rotating exciter with non-controlled rectifier model

States:

$1 - V_E$

