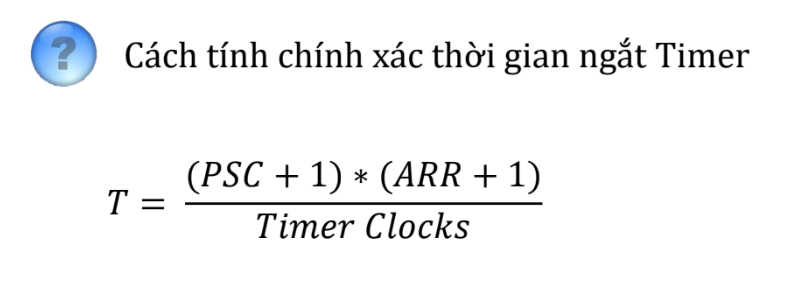
**PWM**

****

Chọn PSC = 79, ARR=1999, f\_clock = 8MHz🡺tần số PWM = 8000000/(80\*2000)=50Hz

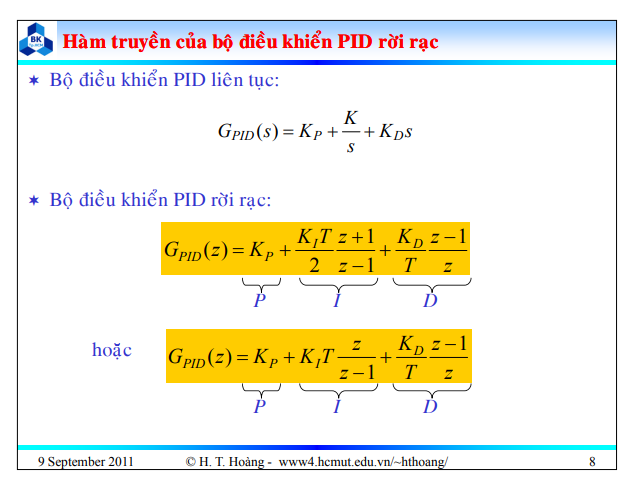
ARR(**AutoReload Register**) = 1999 🡺 htimX.Instance->CCR1 = 1990\*duty (duty: 0->1)

PWM1: timer3, PWM2: timer4

**Timer ngắt chu kì lấy mẫu**

Chọn chu kì lấy mẫu là 10ms=0,01s🡺chọn PSC = 799, ARR=99, F\_clock = 8Mhz

Timer1



https://www.forum.payitforward.edu.vn/threads/1551/

Code:

P\_part = Kp\*(Error - pre\_Error);

I\_part = 0.5\*Ki\*T\*(Error + pre\_Error);

D\_part = Kd/T\*( Error - 2\*pre\_Error+ pre\_pre\_Error);

Out = pre\_out + P\_part + I\_part + D\_part ;

pre\_pre\_Error = pre\_Error

pre\_Error = Error

pre\_Out = Out