

Start of ADC
interrupt service
routine

Clarke Transform
to obtain i_α, i_β
from i_a, i_b, i_c

Park Transform
to obtain i_d, i_q
from i_α, i_β

Calculate PI
controllers'
output to obtain
 V_d, V_q

Measure
electrical position
(θ_e)

Inverse park
transform to
obtain V_α, V_β from
 V_d, V_q

Space Vector
Modulation to
obtain PWM duty
cycles

Calculate
mechanical speed
(ω_m) and I_{qref}
after every
discrete (x) PWM
cycles

End of ADC
interrupt service
routine