Podaci o motoru 1: $R_{r1} := 0.05$ $\lambda_{s1} := 0.08$ $\lambda_{r1} := \lambda_{s1}$

Podaci o motoru 2: $R_{r2} := 0.06$ $\lambda_{s2} := 0.07$ $\lambda_{r2} := \lambda_{s2}$

$m_m(\omega) := 2 \cdot \omega$ Karakteristika opterećenja

$$u_s(\omega_s) := \begin{cases} \omega_s & \text{if } \omega_s \le 1 \\ 1 & \text{if } \omega_s > 1 \end{cases}$$

Funkcija napona od učestanosti
U/f = const.

$$m_{e1}(\omega_s, \omega_r) := \left(\frac{u_s(\omega_s)}{\omega_s}\right)^2 \cdot \frac{R_{r1} \cdot \omega_r}{R_{r1}^{\,2} + \omega_r^{\,2} \cdot (\lambda_{s1} + \lambda_{r1})^2}$$

$$m_{e2}(\omega_s, \omega_r) := \left(\frac{u_s(\omega_s)}{\omega_s}\right)^2 \cdot \frac{R_{r2} \cdot \omega_r}{R_{r2}^{\,2} + \omega_r^{\,2} \cdot (\lambda_{s2} + \lambda_{r2})^2}$$

$\omega(\omega_s, \omega_r) := \omega_s - \omega_r$ $\Sigma m_e(\omega_s, \omega_r) := m_{e1}(\omega_s, \omega_r) + m_{e2}(\omega_s, \omega_r)$

A) Odrediti učestanost i momente motora kada je brzina 0.8 r.j.

$\omega_A := 0.8$ $\omega_r := 0$

Given

$\Sigma m_e(\omega_A + \omega_r, \omega_r) = m_m(\omega_A)$

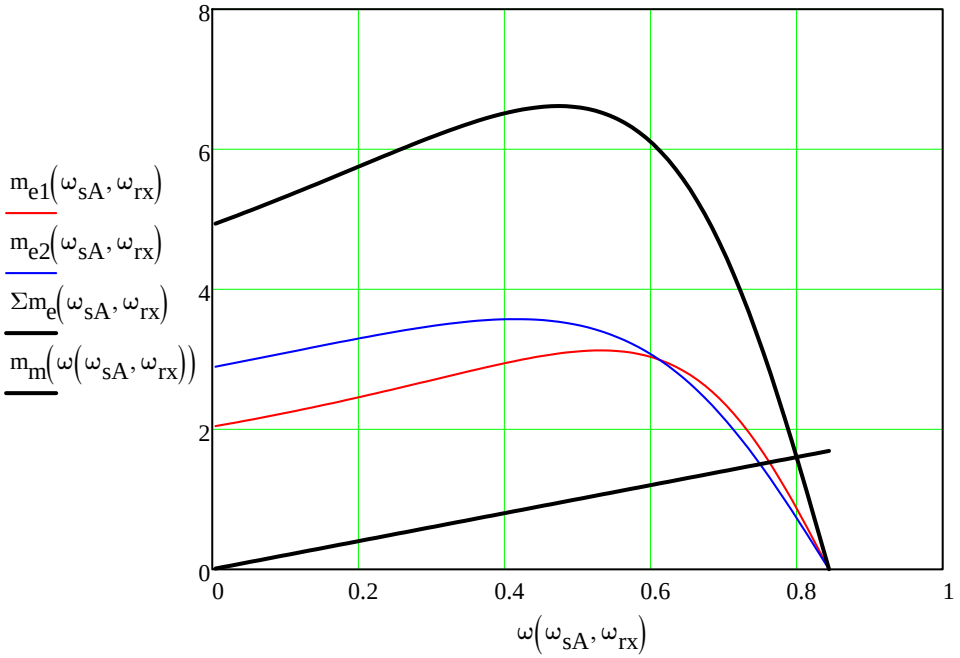
$\omega_{rA} := \text{Find}(\omega_r)$ $\omega_{rA} = 0.04433$

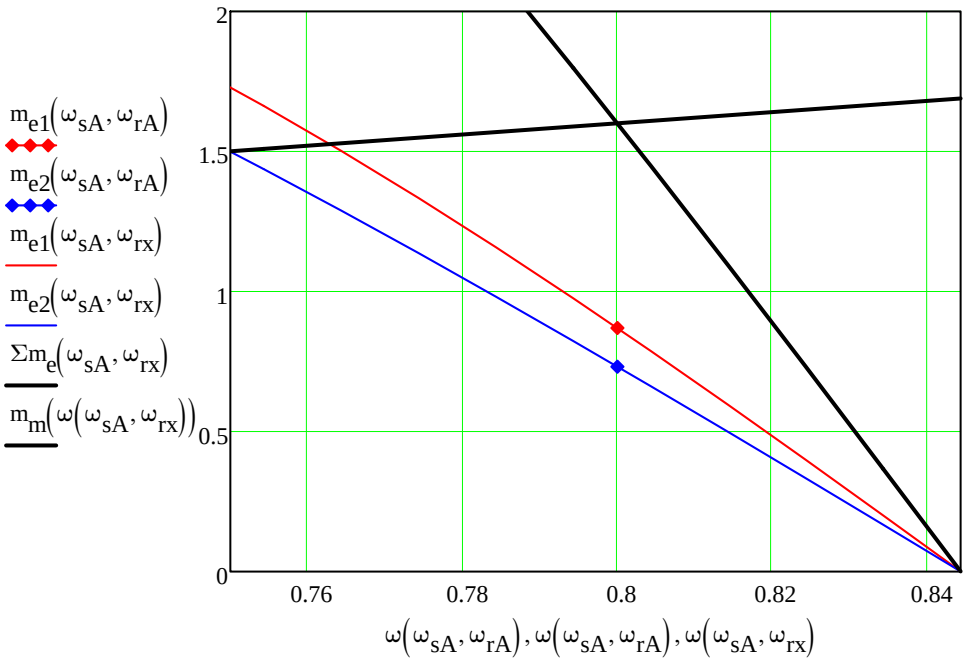
$\omega_{sA} := \omega_A + \omega_{rA}$ $\omega_{sA} = 0.844$

$m_{e1}(\omega_{sA}, \omega_{rA}) = 0.869$

$m_{e2}(\omega_{sA}, \omega_{rA}) = 0.731$

$\omega_{rx} := 0, 0.01 .. \omega_{sA}$





B) Odrediti učestanost i momente motora kada je brzina 1.2 r.j.

$\omega_B := 1.2$

Given

$\Sigma m_e(\omega_B + \omega_r, \omega_r) = m_m(\omega_B)$

$\omega_{rB} := \text{Find}(\omega_r)$ $\omega_{rB} = 0.13247$

$\omega_{sB} := \omega_B + \omega_{rB}$ $\omega_{sB} = 1.332$

$m_{e1}(\omega_{sB}, \omega_{rB}) = 1.265$ $m_{e2}(\omega_{sB}, \omega_{rB}) = 1.135$

$\omega_{rx} := 0, 0.01 .. \omega_{sB}$