$$X(s) = \frac{\frac{1}{6}}{s} + \frac{-\frac{1}{6}s + \frac{1}{3}}{(s+2)^2 + 2}$$

$$= \frac{\frac{1}{6}}{s} - \frac{\frac{1}{6}(2+s)}{(s+2)^2+2} + \frac{2}{\sqrt{2}\,3}\,\frac{\sqrt{2}}{2+(2+s)^2}$$

Sp

$$x(t) = \frac{1}{6} - \frac{1}{6}e^{-2t}\cos(\sqrt{2}t) + \frac{\sqrt{2}}{3}e^{-2t}\sin(\sqrt{2}t) \qquad t \geq 0$$

S