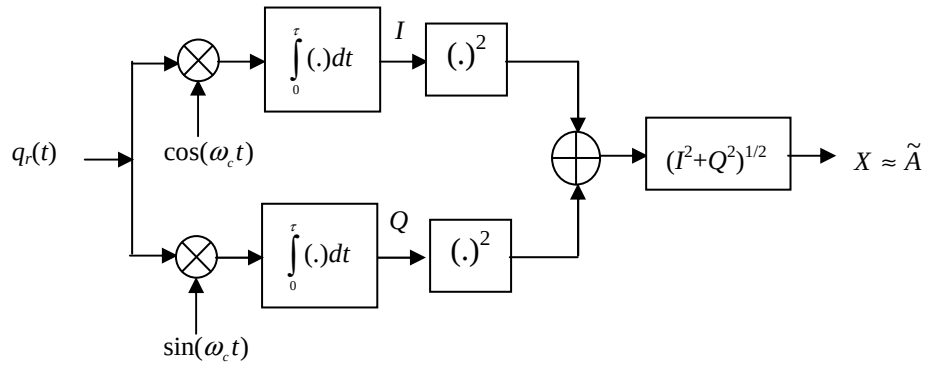


Some questions in the chapter

- 1- What is the meaning of the acronym 'RADAR' ?
- 2- Cite some civil applications of radar system?
- 3- Write and explain the objective of radar equation?
- 4- What are the parameters influencing on volume and surface clutter resolutions?
- 5- From the following figure, demonstrate that the output of the envelop detector, X is exactly the amplitude of the received echo, $\tilde{A}$?

Emitted and received signals are $q_e(t) = A \cos(\omega_c t)$ and $q_r(t) = \tilde{A} \cos(\omega_c t + \tilde{\varphi})$ respectively.



- 6- What is the value of the shape parameter that gives the Rayleigh distribution from the following Weibull distribution?

$$p(x) = \frac{c}{b} \left(\frac{x}{b} \right)^{c-1} \exp \left(- \left(\frac{x}{b} \right)^c \right)$$

What is the distributed function of Weibull density?

- 7- Give the density function representing aircrafts?
- 8- Give the density function representing missiles?