

EE 311 Signals.... (Special Assignment)

Write down the solution for the LCCDE with Input Derivative of Eqn. 2.132

2-8.2 LCCDE with Input Derivative

We now consider the more general case of a second-order LCCDE that contains a first-order derivative on the input side of the equation

$$\frac{d^2 y}{dt^2} + a_1 \frac{dy}{dt} + a_2 y(t) = b_1 \frac{dx}{dt} + b_2 x(t). \quad (2.132)$$