

ECE/EEE F311 Communication Systems (First Semester 2023-2024)
Lab-6 (Tuesday) (03-10-2023)

Objectives

In this task, the objective is to study detection of FM signal.

Task 1

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fs = 10 * (deltaf + f_c + fm);  
x_t = 10 * cos(2 * f_c * pi * t + 2 * pi * k_f * m_t_int);
```

Generate a FM signal for message signal $m(t) = \cos 20\pi t$ at a carrier frequency 500 Hz and $\Delta f = 7.5$ Hz. Take carrier amplitude 10.

Task 2

Apply a (A) derivative plus envelop detector (known as frequency discriminator) (B) for the demodulation of the message signal $m(t)$. Use hilbert function for envelop detection.