Homework IV

1. (20%) Implement a Gold-sequence generator with a degree of 10. (Specify the employed generator polynomials.)
2. (20%) Based on the generator obtained in (1), evaluate the cross-correlation spectrum of this set of Gold codes.
3. (20%) Simulate the average BER of BPSK modulation versus $E_b/N_0 = 0, 1, 2, \ldots, 5$ dB for an **asynchronous** (among users) system based on the set of Gold codes with the processing gain PG = 100 for the number of users 10, and 30. The relative delays among users are assumed to be uniformly distributed within one bit interval.

- Due date: **5/13**, (Submit your report and program codes to TA through e-mail.) Email: TWNTHUCOM5160@gmail.com