ESE-3014 Lab 3 - CDMA

Theory

GNU Octave is a high-level language, primarily intended for numerical computations. It provides a convenient command line interface for solving linear and nonlinear problems numerically, and for performing other numerical experiments using a language that is mostly compatible with Matlab. It may also be used as a batch-oriented language.

Octave has extensive tools for solving common numerical linear algebra problems, finding the roots of nonlinear equations, integrating ordinary functions, manipulating polynomials, and integrating ordinary differential and differential-algebraic equations. It is easily extensible and customizable via user-defined functions written in Octave's own language, or using dynamically loaded modules written in C++, C, Fortran, or other languages.

Task

1. Simulate Code Division multiplexing to achieve multiple access in a shared medium.

2. Follow the process on today's course, you can use our Walsh matrix. Create three data sequences for three users, encode and decode with the code you chose for all of them from matrix. You don't have to use pn sequence, m sequence, and gold sequence.