Experiment No.: 7

Aim:

To implement a basic function of Code Division Multiple Access (CDMA) to test theorthogonality and autocorrelation of a code to be used for CDMA operation. Write an applicationbased on the above concept.

THEORY:

Code Division Multiple Access (CDMA) is a sort of multiplexing that facilitates various signals to occupy as single transmission channel. It optimizes the use of available bandwidth. The technology is commonly used in ultra-high-frequency (UHF) cellular telephone systems, bands rangin between the 800-MHz and 1.9-GHz. Code-division multiple access (CDMA) is a channel access method used by various radio communication technologies. CDMA is an example of multiple access, where several transmitters can send information simultaneously over a single communication channel. This allows several users to share a band of frequencies (see bandwidth). To permit this without undue interference between the users, CDMA employs spread spectrum technology and a special coding scheme (where each transmitter is assigned a code).

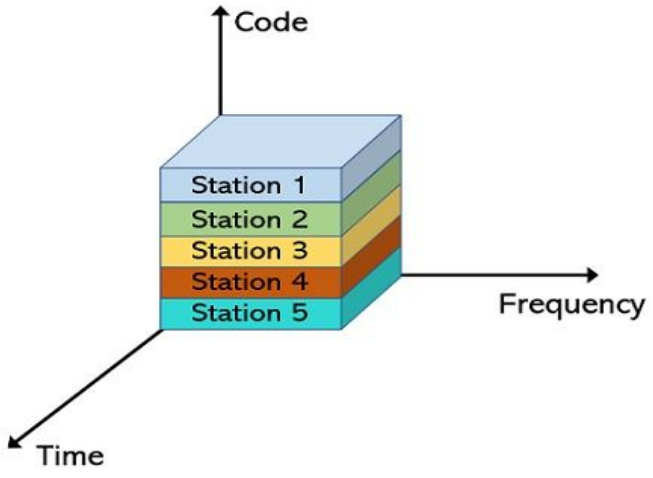

Illustration of CDMA

CDMA is used as the access method in many mobile phone standards. IS-95, also called "cdmaOne", and its 3G evolution CDMA2000, are often "CDMA"but UMTS, the

3G standard used by GSM carriers, also uses "wideband CDMA", or W-CDMA, as well as TD-CDMA and TD-SCDMA, as its radio technologies.
The intended 4G successor to CDMA2000 was UMB (Ultra Mobile Broadband); however, in November 2008, Qualcomm announced it was ending development of the technology, favoring LTE instead. CDMA Autocorrelation: Autocorrelation of the sequence, it determines the ability to synchronize and lock the spreading code for the received signal.

Conclusion: Hence, we have successfully implemented and developed an android application for drawing freely on canvas with hands using android studio and also various features are provided.