**Abstract**

The technical study undertaken is based on Android application and Android architecture respectively on two different researches. In the first research, an attempt to develop an android application is conducted, which helps in detection of a falling motion in the host subject. Smart algorithm is used to detect a false fall action (or Daily Activity) such as sitting, yoga, etc. which will revert the application from generating a false alarm. A true fall will generate a real alarm which will send out messages to emergency contacts to assist the fallen subject. The application is designed to help elderly users to intimate the relatives and friends about any unintended mishaps. The second research is based on the security concerns of the android architecture. Android has a feature, that expects the user to allocate certain permissions to access confidential/private user data for certain applications. The allocation of these permissions may be a security concern but android handles is with ease. The encryption algorithms are getting better with each newer version of android that is being researched and improved by google. Apart from this, the research also shows how permissions are assigned to each service in android and how it synchronizes this data, every time the same user logs in to perform operations. All in all, both the researches provide an excellent understanding of the android application architecture and system design with how permissions and granted via user.