

**Abstract:**

Nowadays, crime rate associated with children keeps increasing due to which draws peoples' attention regarding child safety. This research is conducted to propose a child security smart band utilizing IoT technology. Online questionnaire and semi-structured interview are methodologies used to collect data. The online questionnaire gains feedbacks by sending questions electronically, where answers need to be submitted online. In the semi structured interview, researcher meets and asks respondents some predetermined questions while other being asked are not planned in advanced. Through information obtained, a smart band have been proposed to monitor the safety of children. By this, parents know what is happening remotely and can take actions if something goes wrong. The future improvements of this device will be adding functions and software to make it works like a phone such as messaging, gallery, Google, YouTube, meanwhile, adding more child security features that child safety is guaranteed.

**Problem Statement and use cases:**

Cases of children has been increasing to minimize the crime and provide safety assurance to parents certain safety measures are required like monitoring the location.

**Standard monitoring:**

The use of manual system to connect family's and there students most of time teachers or other persons are intermediate between the students and family. In our country families and their children have no direct contact in school when they need to contact their children if the families came to school. Lack of child monitoring in school make children are prone to many accidents. Safety of children is very critical since children cannot protect themselves.

**Geofence:**

By continuously checking the child's location notification will be generated if the child crosses the geofence. The notification of child's location will be sent to parents or relevant caretakers. This complete data is further stored in a database.

**Social impact:**

Improved safety index for children, freedom for children with special needs. Reducing crime rate and provides a set off safety measures to war off any danger.

**Business model:**

Products exclusively attracts parents as the provide a sense of safety. The product along with the cloud application can be given as service subscription for a temporary period of time. The plans of subscription can be made as same as mobile recharge.

