Protection against Child and Women Abusing Using Iot Sensors and E-Tatoos

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Abstract—One of the main problems that arise in emerging nations is the abuse of children and harassment of women. This article focusses on the usage of IOT sensors and e-tattoos to prevent child abuse.
Keywords: child abusing, women harassment, sensors

I.   INTRODUCTION

India is one of the developing countries.The developing countries are generally facing so many problems and issues. Such as Food, Shelter, Economic, Electrical Energy etc. Simultaneously the child abuse and the women harassment also raised every day. Our government implement more protection against the issues. But cannot able to protect and prevent.

The main challenge is to implement the laws due to inadequate human resource capacity on the ground and quality prevention and rehabilitation services. As a result, millions of children face various protection risks. Violence against children is widespread and remains a harsh reality for millions of children from all socio-economic groups in India. Both girls and boys in India face early marriage, domestic abuse, sexual violence, violence at home and in school, trafficking, online violence, child labour and bullying. All forms of violence, abuse and exploitation have long-lasting consequences on children' s lives.

Exact data on violence, abuse and exploitation is not sufficient but overall India is becoming increasingly aware of violence against children, especially sexual abuse. Several cases that may have earlier gone unnoticed, are now being reported.

neighbours have sexually exploited children. This shows that children are in need of protection even at home. They are afraid to mention this to anyone when it happens, probably out of fear of not knowing what has occurred. Sexual exploitation is not rape alone. There can be many forms of sexual exploitation like clicking indecent photographs of children, making children watch pornographic content, physically teasing them, etc.

The trauma of sexual exploitation in children sometimes impacts the children through life; they become guilty, fearful, lonely and worried.

Much of the harassment which women face at the workplace isn' t " sexual" in content or design but the motive behind this is to show the domination of male folk, inferior job position where women usually wield less hierarchical power in an organizations and men have more sexual harassment serves as one method of the powerful asserting control over the powerless, misperceptions about the friendly nature of a women in an organization by men colleagues and who began to harass those women who are quite friendly in nature and women with higher academic profile and lesser job opportunity when they began their journey to find a job in an organization may it be an educational institute or other private or government sector they are harassed and advanced by sexual favours by the person in charges and for that they are assured to be offered a job and consequently all these causes leads to sexual harassment of women. Sexual harassment has shown a steady increase from last decade to the present scenario with 29.20% cases registered in the year 2015 and which resulted in violation of basic immunities of women at workplace. Finally the current study recommends that the need of hour is to take a close look over the issue and provide the preventive measures that could better assess the situation.

Generally it can be classified as

i)Physical Abuse
ii)Sexual abuse,
iii)emotional abuse and neglect

i) Physical abuse

- Two out of every three children were physically abused.
- Out of 69% children physically abused, 54.68 % were boys.
- Over 50% children were being subjected to one or the other form of physical abuse.
- Out of those children physically abused in family situations, 88.6% were physically abused by parents.
- The State of Andhra Pradesh, Assam, Bihar and Delhi have almost consistently reported higher rates of abuse in all forms as compared to other states.
- 50.2% children worked seven days a week.

ii)Sexual Abuse

- 53.22% children reported having faced one or more forms of sexual abuse.
- Andhra Pradesh, Assam, Bihar and Delhi reported the highest percentage of sexual abuse among both boys and girls.
- 21.90% child respondents reported facing severe forms of sexual abuse and 50.76% other forms of sexual abuse.
- Children in Assam, Andhra Pradesh, Bihar and Delhi reported the highest incidence of sexual assault.
- 50% abuses are persons known to the child or in a position of trust and responsibility.

iii)Emotional Abuse and Girl Child Neglect

- Every second child reported facing emotional abuse.
- Equal percentage of both girls and boys reported facing emotional abuse.
- In 83% of the cases parents were the abusers.
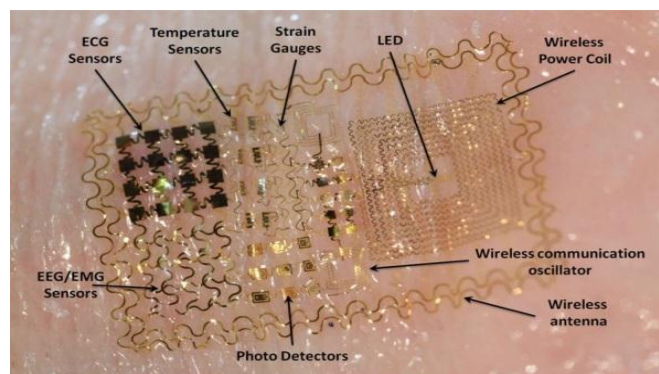- 48.4% of girls wished they were boys.

This research article deal with the protection of child abusement by using IoT techniques.
The abundant growth of network technology will help to protect and prevent all kinds of equipments, movable or immovable. It deals with the security system deals with how will protect against child abusement.

Now a day' s most of the abusement were done at school and college students. They are not able to tell anything to their parents. The main reason is that mentally they were disturbed and they are feared if they confess what anybody will think of us and few of the children' s are not knowing whether they are harassed.
Children' s are in fear if they tell their parents what will they think of and due to the lacking of understanding only most of the children' s / students do not inform to their parents this behaviour only helps to the culprits to move ahead and give torture. This method is used to break the distance between the children with their parents.

Physical abuse:

a) When child is abused then the heart beat will vary due to its fearness. E-tattoos can be used to monitor the heart beat rate. If there is any variation or dilation in the heart beat rate, then it would be automatically reported the concerned parent or guardians phone through the contact number provided.So this method acts as an alert to the parent or to the nearby police station thereby creating awareness about their child being abused. E-tattos will be thinner than our human hair. Also it will be smaller than credit cards

b) Sensors can be fixed in shoes and if there is any change with the child' s body such as change in heart beat rate, over sweating, fearness, etc., the sensor will intimate their parents or the nearer helping for rescue with the location. If a child gets fear its heart beat varies and also if the child gets afraid over sweating may occur. Based

on these changes the sensor detects and informs it to the parents or nearby police station.Thus the a Sensor will be connected to the bottom of the chapel/shoe.

c)Another option is to sense if there is any screamings sound by using voice recognition sensor such as arduino.Sound sensors detect sound waves viaits intensity and by converting it to electrical signals. Sound sensors will have an inbuilt capacitve microphone, amplifier and peak detector
We can make use of pulse sensor to detect changes in heartbeat.

d) Human emotions can be detected such as their sadness, happiness, anger,fear,disgust can be detected . This can be done by using EQ-Radio which makes use of wireless signals to detect changes in breath and heart rate. This device will be 87% accurate in detecting   human emotions.Based on these change in emotions we can conclude the persons situation

II.   Conclusion:

Thus this paper dicusses about the possible ways of protecting children and women from abuse. It can be achieved by using E-tattoos,shoe based sensors,voice sensors and EQ-Radio

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