"Smart technologies for safer cities" – Safetypin

An awareness program on women safety with the help of mobile application has been conducted under the auspices of Women Empowerment and Development cell of the varsity. Ankita Kapoor, Project associate of Active Learning Solutions Pvt. Ltd graced this awareness session on 28th February 2020. On this note she spoke about the safety of women, problems regarding identifying the black spots in cities and the how the Safetypin applications help and gave a detailed overview of how this application work.

Ankita Kapoor :

We have been working since 2013 and have data in over 40 cities in India and globally. We believe strongly in building an evidence base using data. Safetipin has three apps for data collection on factors affecting women's safety at night. The first method My Safetipin app, is used to collect crowd sourced user audit data. Currently we have more than 100,000 downloads of the app. The Safetipin Nite app is used to capture photographs along with their location coordinates. Safetipin Site, our third app can collect customized data. Safetipin is the only system that collects night-time data and has evolved into an approach for data collection, analysis and representation. Safetipin is a global partner of UN Habitat's Global Network on Safer Cities. Safetipin has now collected data in more than 30 cities in India and outside. Our data has been used by city authorities in Delhi, Bengaluru, Kerala, Panchkula and other cities in India, as well as in Port Moresby, Manila, Hanoi, Nairobi and Bogota. In Delhi, the data was used to improve lighting at 7800 points in the city. In Bengaluru, it was used to decide where to place bus stops and in Bogota, it was used to improve women's mobility by placing CCTV cameras at strategic locations. In Port Moresby, the data has been used to design a women friendly bus station and in Hanoi, to improve last mile connectivity around the upcoming metro line. Further in Delhi, it has been used by women and girls in low income neighbourhoods to map their safety and advocate for changes. We have received several awards including the Dubai International Urban Best Practices Award, Global Urban Innovation of New Cities Foundation, The Womanity Award and the Lotus Leadership Award among others.

Women Empowerment and Development cell has collaborated with this organization for creating awareness to large extend and also met Women and Child Development officer Kruthika Sukhla for further assistance. Varsity Vice Chancellor Dr. M Y S Prasad, Registrar Dr. M.S Raghunathan, Rector Dr. K. Satya Prasad, Professors Dr. Sharada, Dr. Usha Rani, faculty, research scholars and students attended this event.

Safetipin Applications

At the core of the application is the Women's Safety Audit. Based on the global experience of 20 years on safety audits, 8 important parameters namely, lighting, walk path, public transport, visibility, openness, crowd, gender diversity and security that define safety perceptions are fixed. Feeling being the ninth parameter exclusively on perception. These together help us to understand the perception of safety of public spaces. A location is audited based on these nine parameters. Each safety audit results in a pin on the specific geo tagged location where the audit was performed and also records the time and date. Results of the safety audit are aggregated to a 'Safety Score' for areas and neighbourhoods. The information on the application specifically focuses on the experience of women and girls, providing them with an interactive tool around feelings of safety.

1. My Safetipin

This is a free app that can be used by residents to share their perception of safety and feedback about safety infrastructure in the city. The use of this app will provide crowd sourced data at the street level and promote citizen engagement. The app has several features including conducting a safety audit, finding the safest route, seeing the Safety Score of areas, as well nearby safe places.

2. Safetipin Nite

Safetipin Nite is used to map all the main roads of the city as well as some key public spaces through photographs. To collect data using this app, phones is mounted on the windshield of cars/taxis and as the car moves the app shall automatically take photographs, recording the location coordinates. Once started, the app takes photographs at every 50m in landscape mode. The pictures thus taken are accessed on our portal and coded on a wide range of parameters linked to public safety. Further we conduct analysis of the data and provide recommendations on how to improve inclusion and use of public spaces. The links between urban design and planning, and the impacts of this planning and design will address how they can be valuable for citizens and governments.

3. Safetipin Site

Safetipin Site is an app that can be used to collect data that is specific to a particular site or city. It is customized to the need for that stakeholder – for example a survey on public transport, public toilets or last mile connectivity. In joint consultation, the survey is designed and implemented for data collection.

Outputs and Representation

Based on the data collected from these three apps, we provide reports, GIS map layers, CSV files as well as recommendations and guidelines for improving safety in the city. Further we can build dashboards and analytics to cities for better monitoring of physical and social infrastructure to ensure safety for women and all residents.