# Safetipin:
# A Mobile Application Towards Women Safety

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*Abstract*

Women have always been considered safe '*char divaron ke ander*' (within the four walls). In the last few decades, there has been a phenomenal shift from their engagement within households into the workplaces to create a niche for themselves within the broader society. A woman's mortal fear only increases when she must travel alone, even in the cities, particularly during late evenings but she even finds herself unsafe at home or within a crowded space. She finds her independence constrained by fear for her safety, even more pronouncedly when she is employed and has to travel alone putting herself in danger. Women's safety is the important dimension to be discussed since her self-perception of being safe has a strong connection with her empowerment. Therefore, women safety and empowerment are interwoven. A safe woman is beyond doubt empowered. Discussions which previously pivoted on a woman's freedom, freedom of expression, and equal opportunity, have suddenly shifted to safety, because of the many incidents of atrocities against women, whether on the streets or in any other public spaces. Over the years, many women safety mobile applications have proliferated to address women's safety in public spaces. These applications by various entrepreneurs share similar functions and services such as, an emergency contact list to alert in case of a crisis, transmission of GPS-determined areas, and directions to safe locations etc. But one such application called "Safetipin" has been found, with plenty of other services too, to contribute towards the feeling of security among women. This study intends to engage "Safetipin" as a case study and understand the working modalities and functions of this mobile application. The research was conducted to gauge the readiness of Thiruvananthapuram city in Kerala, India, towards implementing women's safety. The study also aims to mention some of the experiences shared by the social work students during the auditing process.

*Keywords*

women safety, public space, women safety applications, women empowerment

## Introduction

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Women have always been considered safe, '*char divaron ke ander*' (within the four walls). Over the last few decades there has been a phenomenal shift from their engagement within households into the workplaces to create a niche for themselves in the public sphere of society. A woman's mortal fear has only increased when she has to travel all alone, even in the cities, particularly during the late evenings, but she finds herself unsafe at home or within a crowded space. She finds her independence constrained by a fear for her safety, even more pronouncedly when she is employed and therefore having to travel alone which puts her in harm's way.

Women's safety is an important dimension to be addressed since her self-perception of being safe has a strong connection with her empowerment. Therefore, safety and empowerment are interwoven. A safe woman is beyond doubt empowered. Previously, discussions which pivoted on women's freedom, freedom of expression, and equal opportunity, have suddenly shifted to safety as a consequence of the many incidents of gender violence against women whether on the streets or in any of the public spaces. Over the years, many women safety applications have proliferated to address this issue. These applications by various entrepreneurs share similar functions and services such as, an emergency contact list to alert in case of a crisis, transmission of GPS-determined areas, and directions to safe locations. However, one such application called "Safetipin" has been found, with plenty of other services as well, to contribute towards feeling of security among women.

This study engages with Safetipin as a case study to understand the working modalities and functions of this android technology based mobile application in ensuring the safety of women especially in Thiruvananthapuram in Kerala, India.

Before going further into the intricacies of how Safetipin Audit works, it is important to emphasise concepts such as public spaces, women safety, and the various forms of gender violence she has to confront on a daily basis in terms of safety issues and insecurities.

### Public Space

A public space generally plays a significant role in fostering the social life of communities. They serve as self-organising public services which is a shared resource in which experiences and values are created. The success of a public space is not just solely in the hands of its designer or planner, it also relies heavily on the people using it, for it is the people who make places, more than places make people (Mean and Tims, 2005).

The use of public spaces varies depending heavily on the time of day. These include areas such as public open spaces, high streets, street markets, parks, play grounds, pavements, cinema halls, market squares, government offices and other areas. Concerns are raised over open and uncontrolled public spaces which can sometimes be sites for unpredictable encounters. Public spaces, as often observed, are rarely designed or planned to enable a woman's access to such spaces. Her access is limited by time, place, and purpose as mentioned in the Safetipin report (Anna, 2015).

The right to utilise a space must be materialised for all the citizens irrespective of their age, gender, caste etc. Even Article 19–22 of our constitution puts forward two important rights to its citizens, such as the Right to freedom of expression and movement. The freedom of movement guarantees that every citizen can move from one state to another or anywhere within a state.

The right to city space is an idea and a slogan that was first proposed by Henri Lefebvre1 in 1968. According to David Harvey, a scholar who advocates the idea of the right to the city (cited in Anna, 2015: 6):

The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right, since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization. The freedom to make and remake our cities and ourselves is, one of the most precious yet most neglected of our human rights. The right to a city space must be proven to be a right of all the citizens irrespective of gender, class, caste, and community affiliations, not just by words but by a collective action.

### Women's Right to Safety

According to the Thomson Reuters Foundation, nearly four out of five women in India have faced harassment on the streets. As per a survey by the charity Action Aid UK, staring, voyeurism, sexual comments, and wolf-whistling are some of those behaviours which have severely obstructed the free movements of women in certain areas of the city.

The study that polled over 500 women in cities across India stated that around 84 per cent of the women respondents who experienced such harassment were generally aged between 25 and 35 years old, and were largely working women and students. It is almost as if society is telling women that 'public spaces are not for them' and what more is interesting is that women are asserting their claim of these spaces (Balla, 2016).

According to an online survey by the British market research firm YouGov in May 2016, women faced harassment in multiple places such as streets, in parks, at community centres, college campuses and also while travelling on public transport (Singh, 2016). Safety of women is directly related to patriarchal mind sets that manifests itself in streets, homes and workplaces. The fear of harassment and violence has a crippling effect on women's abilities and potential and in itself, it is an attack on women's rights (Singh, 2016: 1).

There is not a single day that goes by that women and young girls from all classes and castes are not molested and assaulted. How safe a woman is, is really something to be reviewed time and time again. Most women weep in silence, while a few assert and fight to safeguard their dignity. This is best described in, "(there) is an unspoken war on the streets. Young school and college going girls use books to shield themselves, other women wear full-covered attire to protect their bodies and others avoid the mere glance of the roving gaze" (Mohandas, 2014). We come across daily news stories from across India of women being raped, molested, beaten, exploited, and killed day after day. The shocking Nirbhaya gang-rape case saw a sharp public reaction in the form of protests and various campaigns all over India. All this clearly emphasises the need to lobby hard until the leaders and administrators concerned take strong action.

According to India's National Crime Statistics:

There were 82,422 recorded assaults against women in 2015, which includes voyeurism, stalking, sexual harassment and even another 34,651 reported rapes. There are many such incidents that even go unreported. The aftermath of Nirbhaya's case has surely brought forward one question, how could women stay safe in public spaces? (Borpujari, 2016: 1).

According to a research paper in *Crime Science*, laws cannot bring any immediate changes in a public behaviour that includes eve-teasing and other serious assaults. These are deeply rooted in the culture of a country, ingrained in the local public, and the criminal justice system. The street harassment of young women has very much to do with gender inequality in India. The fact is although young women are venturing into exploring their self-identities outside their homes in ever increasing numbers, the truth

prevails that girls and boys are still socialised under different gender role expectations (Natrajan, 2016).

The prediction of incidents such as robbery, sexual assault etc. is never possible. Therefore, to minimise the possibility of physical violence, all the necessary help tools should be handy so as to safely escape from such situations. According to Paradkar and Sharma (2015: 1), Ban Ki-Moon, the de facto spokesperson of the United Nations, stated that there is, " one universal truth applicable to all countries, cultures and communities: violence against women is never acceptable, never excusable, and never tolerable" up the WHO's report which states that, "A violent act against female gender disturbed the public health life of society and also it violates the human rights of women" (cited in Paradkar and Sharma, 2015).

According to a recent survey, Kerala is counted as being among one of the most unsafe states for women in India. As per *Times of India* investigation, around 73 per cent of women have chosen Kerala as the most unsafe state in the country followed by West Bengal and Uttar Pradesh. Despite Kerala having shown high on social indicators, presenting itself as one of the best models to be copied (Kerala Model of Development), Kerala has reported the highest crime rate for IPC crimes in 2013 (just before this study was done). The National Crime Records Bureau (NCRB) figures compiled on a yearly basis show that Kerala, with a population of around 35.55 million has a crime rate of 723.1 as of 2015, more than double the national average of 234.2 for a population of 1.3 billion. "Modern crime surveillance technologies and access to information and networking, guaranteeing the safety and security of women has become a serious challenge for all" (Anna, 2015: 9).

The above statistics is reflected qualitatively in other citations. "In Kerala, you have to walk with a sense of fear, even in broad daylight. From frotteurism and groping to eve-teasing and lecherous stares, the woes of a woman seem to be never-ending. It is a 'men's only zone' after nightfall" (Kurian, 2014: 1).

The streets become almost deserted after sunset and women fear to venture out after 7 p.m., unless it is really necessary. Lack of streetlights on the empty lanes or streets make the situation worse. It is a shocking experience for those who often visit Kerala from other states. For them it is more of a cultural shock and it is typically hard for them to accept the state of affairs present in Kerala (Kurian, 2014: 1).

The mobile phone can be the best protector of the potential victim when it comes to the safety and security of women in India in today's world, It provides a user-friendly platform, whereby the user can stay in contact with their loved one throughout the day. Smart phones provide a myriad of facilities at a cheaper internet cost. Android technology, with its highly specialised features, like high resolution camera, Wi-Fi, GPS navigation, and touch screen, help the mobile phone users keep in touch with the modern world and facilities. "Android is a software stack for mobile devices. It includes an operating system, key applications, and middleware. The Android SDK provides the tools and APIs use to develop applications on the Android platform using the Java programming language" (Dhobale et al., 2016: 1).

As the frequency of crimes against women increases day by day and women, despite their potential for growth and progress, must confront various types of safety issues, there has also been an increase of a large avenue for some of the entrepreneurs to launch their innovative initiatives to ensure women's safety and security. Their initiatives have evidently been an impetus in the rise of a plethora of technology-based applications to create a meaningful solution towards women's safety. The wave of online-android maps and mobile phones have become a popular practice today and the attention has shifted to these applications, most of which served as a reporting system for unsafe areas with an option to share pictures of location or a panic alarm/ tracking

features for emergencies. According to Gupta (2016), some of the popular safety applications that have come into the picture as an utmost priority of the Indian government keeping in mind the increasing crimes against women are:

- Safetipin
- Raksha
- Himmat
- Women safety
- Smart24x7
- Shake2Safety
- bSafe

The purpose of this research is to study the "modus operandi" of the Safetipin Application encompassing its structure, modalities, various functions, and services. The research was conducted to gauge the readiness of Thiruvananthapuram city towards women's safety. The study also attempts to note some of the experiences shared by the social work students during the auditing process. The aims were:

1. To familiarise with the android based Safetipin Application and its mode of operations and services for women's safety.
2. To describe the various experiences encountered by the social work trainees while conducting the safety audit.
3. To assess the women-safety readiness of Thiruvananthapuram City

## Methodology

The study follows a mixed methodology. The first part was a survey undertaken through Safetipin, an android-friendly safety-audit software which interfaces with GPS. The safety audit was conducted using nine parameters - light, openness, visibility, people, security, walk-path safety, public transport, gender diversity, and general feeling. The documentary proof of the same in the form of images was then uploaded as evidence. The second phase consisted of participant observation based on Participatory Action Research (PAR) Design, which helps in recording the field experience of the voluntary researchers. The same method was used to triangulate the findings generated through the survey.

### Training

The training for familiarising with the "Safetipin" application and specifically, the audits, was given to the selected auditors (students from MSW department) on 3rd of July 2014 at Loyola Extension Services (LES) at the Loyola College of Social Sciences, Thiruvananthapuram. Mock audits, which helped to assess the skills of the auditor, were also conducted for the audit familiarisation purpose. The above-mentioned training was given by Ms. Sanya Seth, Project Associate of "Safetipin" in collaboration with the Sakhi team. The selected team consisted of 15 members who undertook the audit at dawn and after dark to assess the ground realities in Thiruvananthapuram city with respect to women's safety.

### Project Period

The project was for the period of four months from July to Oct 2014. Thirty areas were identified in the city which needed to be audited. Twenty-five audits were conducted in each selected area. In total, in the city of Thiruvananthapuram, eight hundred audits were undertaken and completed by August 2014.

**Safetipin Application:**
**A Tool for Women Safety**

Safetipin Android map-based mobile application was developed by Jagori Women's Resource Group, New Delhi, to make Indian cities and communities safer. The entrepreneur Ashish Basu, an alumnus of IIM Bangalore, IIT Mumbai, and ex-president of NIIT, and activist-researcher Kalpana Viswanath of 'Jagori', a force behind the Safe Delhi Campaign, designed the application Safetipin as a result of extensive research studies on violence against women in public spaces in the city. UK AID supported the application's development. The Ford Foundation and women's movements, such as Sakhi, Swayam, Samyak, and Prajnya were also very supportive.

In Kerala, Sakhi Women's Resource Centre, in collaboration with Jagori, carried out the safety audit in Thiruvananthapuram and Kochi. In Thiruvananthapuram, Social Work trainees from Loyola College of Social Sciences, after being trained by Jagori and Sakhi, carried out extensive auditing/mapping covering the major locations of Thiruvananthapuram Corporation.

The application requires Internet access and GPS for its functioning. Users can create 'Circles of Interest', such as a neighbourhood, a place of work or any place for that matter. Any post about any of these circles will show up on a wall tagged for that circle. The details gathered in this manner may be posted on social networking sites such as Facebook. Such a post can highlight a safe/unsafe place, harassment, or a hazard or even a feeling. Issues in a particular locality, such as broken street lights or open sewers can also be uploaded. These issues can be then forwarded to the nearest police station or civic authorities. Even useful information on various community resources, such as nearby 24-hour Pharmacies, Auto- stands, ATMs and directions to them, can be accessed. When travelling, these applications (apps) can give information on safe and unsafe locations.

The Safetipin application is meant to remain free for users. Safetipin builds on the premise that community participation and engagement will make our cities safer. At the core of the application is the Safety Audit. It consists of a set of nine parameters that together contribute to the perception of safety. Each audit results in a "Pin" on the specific location, where the audit was performed and it also records the time, date, and pictures.

Safetipin's vision is to be the technology environment through which individuals, communities, researchers, Non-Governmental Organisations (NGOs), government, and service providers can come together to share information and act to make our cities safer.

### The Choice of the Name – Safetipin

The makers of the application explain the reasons behind this interesting name:
- Firstly, the application makes it possible to 'pin' an audit safety score as a 'pin' on a map.
- Secondly, in India traditionally women used the safety pin as a defence against harassment especially in crowded places; and finally,
- A safety pin is a symbol of something that holds fabric together and in this context it holds together the fabric of our society.

### How does Safetipin Make Cities Safer?
Safetipin provides information about infrastructure to promote safety for women and other groups, to citizens at large, and important stakeholders including the
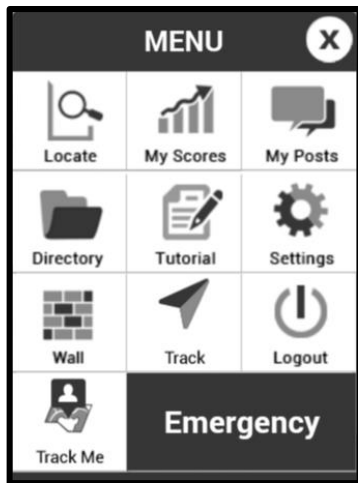
government, NGOs, corporations and Resident Welfare Associations (RWAs), other than the above-mentioned services. Government can provide information to public service providers (such as the Public Works Department), to help them improve their level of service. Information or safety data collected may be used by the police to ensure better patrolling. Safetipin may be used as a tool by NGOs for advocacy. The information reported by this application will help track the level and quality of service and thus the improvement of public amenities. Companies can use Safetipin to extend safety measures to its employees both inside and outside the workplace.

**How does a safety audit work?**

A safety audit is a process whereby individuals can assess a particular location to see what makes it safe or unsafe for use. The safety application comprises a checklist, which has now been converted into a rubric, consisting of nine parameters. The nine key parameters to make this assessment are: light, openness, visibility (how well a person on the street can be seen), people (number of people in the area), gender usage (number of women accessing the area surveyed), security (any visible police or security), walk path (walkability), public transport (access to public transport), and finally, feelings (whether the person feels safe or frightened). Every audit shows up as a pin on the map and is indicated by three different colours depending on the input given for a particular location: red is for unsafe, amber for less safe, and green for safe. The application aims to generate scores for locations, based on which one can evaluate on the relative safety of a particular spot. These are basically the nine parameters to be found on the audit screen (Anna, 2015).

As one logs in to the application, they find the Safetipin matrix that highlights the menu page directing a path to the Audit, Harassment, and Hazard Screens. Depending upon the need, a particular screen (user friendly) can be opened and operated. Given below are the screen shots of the same to make it more comprehensible.

**Figure 1. Safetipin Main Menu and Sub Menu screens**

In addition to the "audit" option, there are other options to record "hazards" and incidents of 'harassment'. There are a total of nine options under each of these windows. Another key feature of the application is "feeling", wherein, a user who is hesitant to go through all the nine parameters, can simply assign a "feeling" score. Feelings are easier and faster to do. The application also helps one find the nearest police station, hospital, transport, and shops. It is the Directory Feature that offers details such as addresses, directions, and emergency numbers. The "Track Me" feature gives the option to be tracked by family or friends when the application helps in accessing the location, especially in the event of any emergency. The application can send an SOS text message with location to a person's emergency contact list.

**Figure 2. The Audit Panel- first window, comment regarding lighting and the complete panel prior to upload**

**Discussion**

The following is a compilation of the subjective reflections by the lady participants of the Thiruvananthapuram Survey Team, undertaking the survey using the Safetipin application:

➤ During auditing, the researchers happened to cover certain areas in heart of the City, at Thakaraparambu, where bars were situated. The drinkers both sober and drunk, while entering and leaving the bar stared at the students out of curiosity, as if wondering what these females were doing there at such an 'odd' hour.  It was a frightening experience and showed how unsafe and risky it would feel for the womenfolk to walk across such areas in public space.

➤ The strangest thing noticed was that, there were numerous houses very closely situated in some of the residential areas but not even a single person was visible on the streets. Most of the windows remained closed, perhaps making it difficult to communicate in the event of any distress. It would not be a matter of surprise, that even if a pedestrian called for help, no one would respond. Typical of a city, socialisation was perhaps minimal among people.

➤ In most areas surveyed in the capital city, even the lighting at the main junctions was assessed insufficient, and, footpaths were in a very dilapidated condition with yawning gaps in the pavements. It is only a blessing that people, especially women, dare not venture out in the night.

➤ In the interiors of by-lanes at Kannamoola, a residential area, a student reportedly found the area completely deserted and scary. The area was pitch dark; there were street lights for 'namesake', which were not functioning.

➤ Visibly, the most vulnerable points include West Fort, Palkulangara with deserted streets; Manacaud-NH Bypass lined with numerous bar hotels (then); the desolate PMG Compound leading to the Priyadarhsini Planetarium; the lane leading to the Police Quarters adjacent to Chandrashekar Nair Stadium; the Plamood-Mulavana Road; the far end of the Bakery Junction which was desolate despite having a decent footpath, which bore the stench due to persistent urination; the flyover leading towards Panavila, and the Panavila-Women College Road. All these spaces invariable appeared to be desolate and 'women-unfriendly' after 6:45 p.m.

➤ On a section of the bypass road going from Chalai to Attakulangara, there is a long stretch where trucks and buses are parked on both sides of the road completely blocking the view from the road towards the pavement. One of the male

investigators feared of the possibility of stalkers attempting molestation given the blocked view and buses with open doors parked.

➢ In very many deserted places, there were corners littered with weeks-old garbage; what made things unbearable was that these public spaces were being used as urinals, giving out a stench, making it almost impossible for the pedestrians to walk through.

➢ The Pangode Military Camp area, which is supposed to be the most secure area owing to its access to the Cantonment, proved otherwise. Pitch dark roads and junctions found very few people on the road.   It happened so, that two of the students while doing their auditing, ran out of petrol, while in very desolate area. They asked for help from some people waiting at the bus shelter, but they refused to offer any kind of help. Even when it rained heavily, people refused to help or even provide shelter for a while. Finally, the two lady investigators pushed the vehicle to reach a point where they got access to a petrol station. It became evident to the researchers that the citizens of Thiruvananthapuram would not provide help even in a critical situation. They seemed wary of intervening and trusting people who have come seeking for help. People are habitually fearful of extending help especially to womenfolk in such late hours may be perhaps because they are never used to seeing women outside their homes at such odd hours.

**The Level of Readiness of Thiruvananthapuram City Towards Women's Safety**

In Thiruvananthapuram, the safety auditors were students from the Loyola College of Social Sciences, and other interested students who approached Sakhi. A total of 800 audits were completed at 30 different locations in Thiruvananthapuram City Corporation, between July and August 2014.

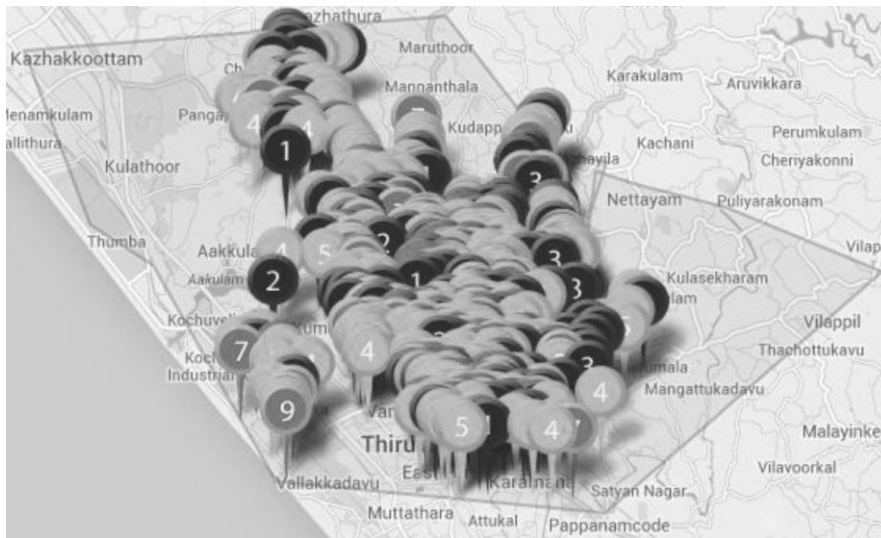**Figure 3. Thiruvananthapuram city with safety audit pins**



Figure 3 shows the Safetipin output on Thiruvananthapuram with the medium grey pins indicating safe spaces, the light grey pins less safe spaces, and the black pins unsafe places.

The audits were undertaken during different times of the day. Places that appeared safe and accessible during the day time presented a totally different scenario after

dark. Some of the areas in Thiruvananthapuram City diagnosed as women-unfriendly according to Safetipin audits included:

- Kunnukuzhy
- Thakaraparambu road
- Chalai - Valiyasalai road
- Plamoodu
- Women's College - Panavila Road
- Kannamoola
- Murinjapaalam
- Poojappura
- Sreekariyam - Akkulam road
- Thampanoor

As the Figure 4 shows, the majority of audits (34%) were conducted between 7 p.m.–8 p.m.  Different time slots were allotted for the audits so as to reflect on the different safety needs or requirements especially on the streets.  Evening hours was the prime time when many people were on the streets for various purposes. It is important to measure parameters and feelings of safety during this time of the day.

**Figure 4. Audit percentage across different time slots**
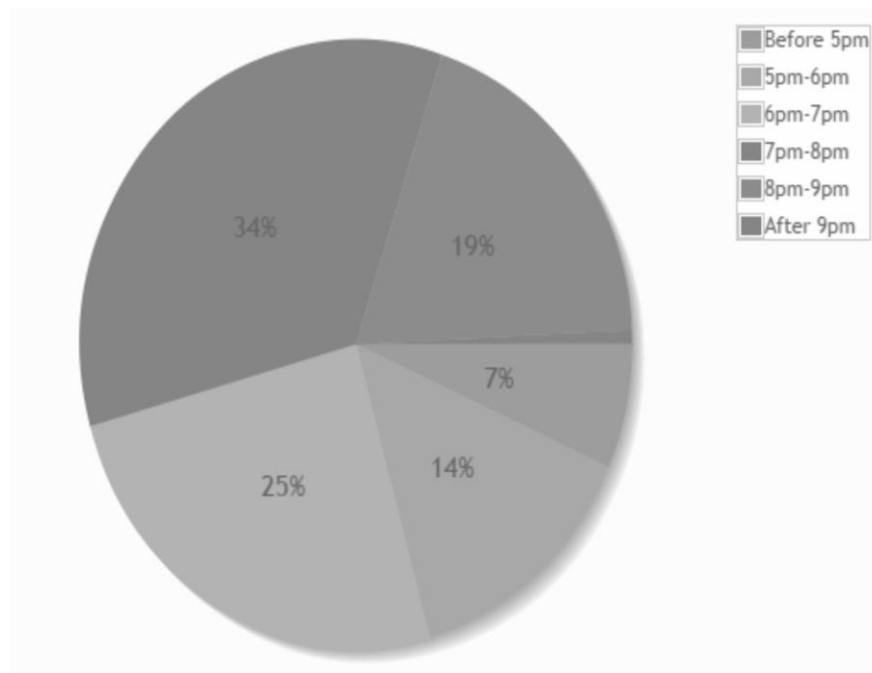


A subjective reflection by the auditors revealed that they encountered many difficulties in conducting audits after dark. Many student participants were discouraged or faced restrictions from their family members about travelling alone after dark because of the fear of insecurity and danger lurking in the streets. The details about the intricate factors that projected the level of Thiruvananthapuram city's readiness towards women safety were gathered through a systematic study of each parameter mentioned on the Safetipin rubric.

**Findings**

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The study shows that despite being the capital city of Kerala, Thiruvananthapuram leaves much to be desired in ensuring the feeling of safety. Figure 5 below indicates the score of each safety audit parameter on a scale of 0–3.

**Figure 5. Average Audit Scores based on the 9-parameter rubric in Thiruvananthapuram City**
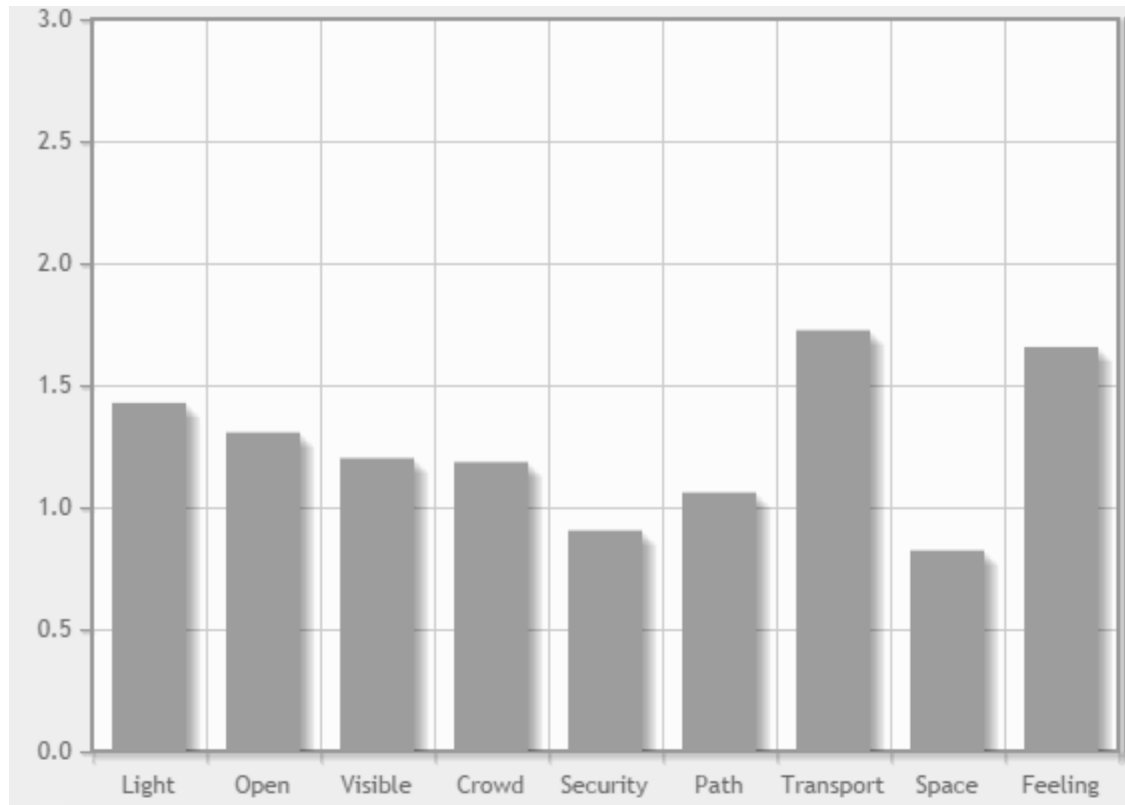


The findings from the audits indicated that three parameters showed the lowest rating. These included gender diversity of spaces, the glaring absence of security personnel, and broken walk paths. All these factors were strong deterrents to women accessing public spaces. All other parameters, such as availability of public transport, lighting, openness, visibility (which indicates how well you can be seen by others in a public space) and crowd, all invited a higher score. Therefore, it may be safely assumed that the other three aspects weighed heavily against women safety. This is perhaps rightly reflected in the parameter - gender diversity - that has been rated lowest perhaps indicating the city to be women unfriendly.

In descriptive terms, women in general avoided many areas because of safety issues. Those who went out only did so mostly if they were accompanied by men. In other words, the perceptive lack of safety in these areas, and the element of fear created by stalkers, and inaccessibility to safe transit prevented women from accessing the city, especially after dark. In effect, very few women are seen on the roads, major junctions or even on public transport. Those who travelled consisted of a limited number of working women and those left with no option but to travel late. The following listed are the areas in Thiruvananthapuram that showed very low in gender diversity during the audit:

- Thakaraparambu road

- Kunnukuzhy
- Sreekariyam – Akkulam Road
- Chirakkulam Road, Palayam
- Ulloor - Akkulam Road
- Kuravankonam -Nanthancode Road
- Ambalamukku - Oolampara Road
- Nandavanam-Bakery JunctionRoad
- Sasthamangalam - Pipinmoodu Road
- Pettah

When it comes to the findings related to the level of gender diversity, the public places in different parts of Thiruvananthapuram lack women's presence, particularly after dark. The sample of a map that particularly indicates the level of gender diversity in Thiruvananthapuram is shown below.

**Figure 6. Gender diversity in different parts of Thiruvananthapuram City**
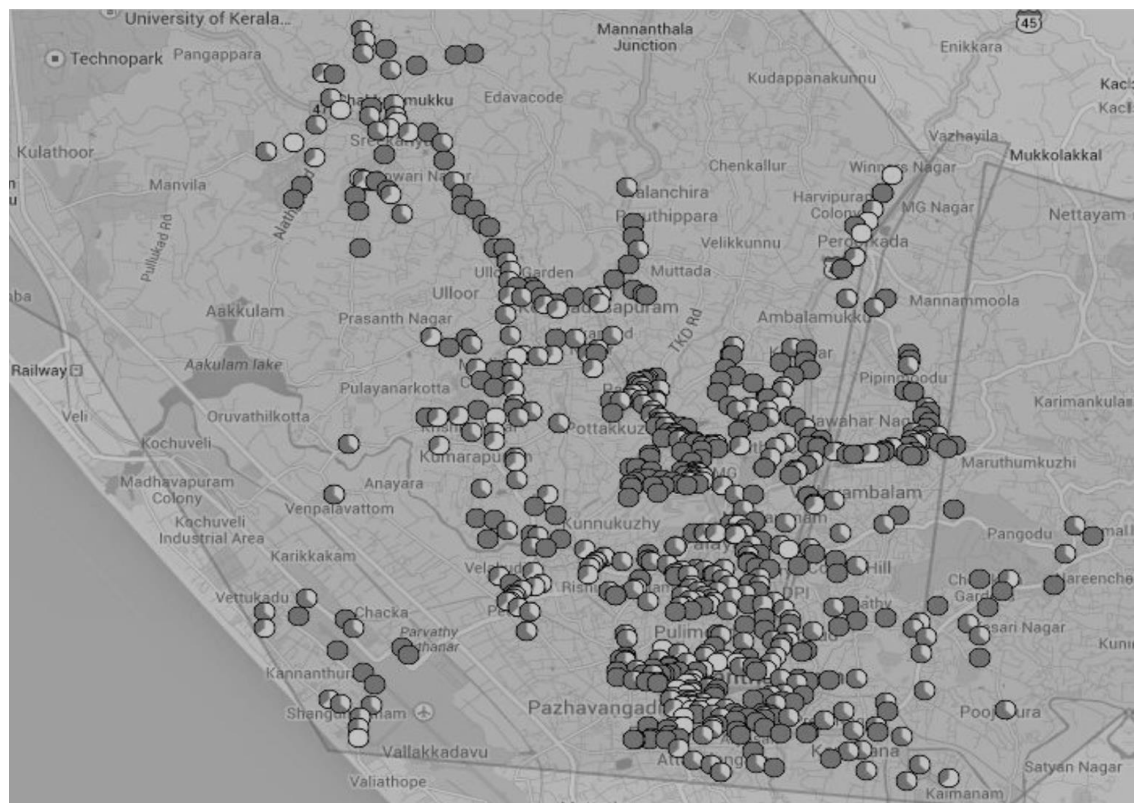


Fully black spots denote those areas where there is no presence of women. Partially black spots are areas which are somewhat gender diverse and fully white spots are areas which are completely diverse, with the presence of both men and women. The findings show that the public places lack women's presence, particularly after dark.

**Feeling of Safety at Different Times of the Day**

It was observed that different times of the day reflected different scenarios with respect to the number of people, familiarity with the area, street lighting, transportation, and gender diversity. Therefore, "time" was definitely a crucial factor and perhaps the main reason that moderated the expectations of men in public spaces. As was observed and experienced by the female participants of the survey, men did not expect women on the streets at late, "odd timings".

In Thiruvananthapuram city, 169 safety audits were conducted prior to 6.00 p.m., that is, before dark, and 631 audits were done after 6.00 p.m., that is, after dark. The large variation in the level of safety before and after dark was quite clear. It was noted that the audit's parameters that showed satisfactory results "before dark", were "grim" "after dark", except for the parameters such as "walk path" and "openness". It was found that gender diverse spaces have a direct link with the time of the day; women simply disappeared from public spaces as soon as darkness fell. The presence of visible security personnel was also found to be low after 8.00 p.m.

Some of the areas with lack of security personnel in Thiruvananthapuram city are:
- Kunnukuzhy
- Pettah
- Pottakuzhy
- Killipalam
- Vanchiyoor
- Nandavanam – Bakery Junction road

The findings with regards to the condition of the walk paths shows that Thiruvananthapuram city fares much better compared to Kochi and the other cities of Kerala. In spite of this perceived advantage there is a considerable lack of proper walk paths in the city except for major residential and business areas. Only certain posh areas are well maintained while the other areas are ignored. Walk paths in the main areas such as East fort, Chalai market, Thampanoor and Thycaud are non-functional; they ranged from being absent, to dilapidated or laid with debris making them inaccessible. These photographs were taken during the audits to give an idea about the dilapidated condition of the walk paths in major areas of the city.

**Figure 7. Condition of walk paths in Thiruvananthapuram City**

**Major Railway Stations and Public Bus Stations**

A total of 50 audits were conducted at the Thiruvananthapuram Central Railway Station, Thampanoor, as well as at East Fort bus stations. The findings from the audits showed that the presence of security personnel (security), gender-friendliness, and quality of walk path received the lowest rating. It was reported by several studies including Safe City Free of Violence against Women and Girls Initiative conducted by Sakhi during 2009– 20111that these areas were unsafe for women. There has been hardly any significant action even after the repeated presentation of numerous reports to the authorities. The perceived inadequate security and  dilapidated walk paths all translated into abysmally low scores categorising the heart of the city as `unsafe'.  In some areas, the drainage slabs which are turned over the walk paths are often cracked and broken. As majority of the audits were conducted after dark, finding that the number of women in Thiruvananthapuram Central Railway Station, Thampanoor, and East Fort bus stands were low.

**Prime Markets**

The other areas most frequented by women included the prime markets, Chalai Market and Palayam (Connemara) Market. These are the major hubs of everyday shopping, ranging from dress materials, electronics to fruits and vegetables. For the purpose of analysis these two markets are grouped together. A total of 58 audits were conducted in the above two areas. Once again, the audits show that inadequate security, dilapidated walk paths, and the low presence of women all resulted in low ratings in perceived safety.

   The overall findings from the audits show that the presence of women (gender diversity) in the city has reported the lowest among other audit parameters. Very few women are seen on the main roads, major junctions, markets, and public transports after 7 p.m. Women avoid many areas because of safety issues. Those who venture outside did so mostly accompanied by men. The presence of security personnel in public places was very negligible in the city, even though Thiruvananthapuram is the capital of Kerala. Though the main hubs of the city have good walk paths, the outer ring paths are in a pitiable condition and visibility in many areas is also reported as being low after dark. In the case of lighting, many streetlights are either not functioning properly or broken. Regarding other parameters, such as availability of public transport, openness and crowd, the scores recorded were fairly high. However, several attempts of moral policing were experienced by the audit team in different parts of the city. Moral policing was mainly experienced by audit teams consisting of a male and female. A female auditor cited incidents of catcalling and eve-teasing while riding her scooter from one location to another  performing a safety audit. She asserted that this is a common problem faced by most of the women on two-wheeler riders in the city. It was generally observed that public transport facilities are comparatively low after 8 p.m. and those that are available are unsafe. The Safetipin audit also pointed out that the number of women pedestrians on the city roads falls after 8 p.m.

   The many issues cited above are definitely a deterrent for the free and safe movement of the women's community.  These assessments prove beyond doubt the extent of readiness/preparedness of the Thiruvananthapuram city towards women's safety. It clearly presents the shortcomings on the part of various authorities who are meant to keep the city safe for all its citizens irrespective of their gender, age, caste, and financial status.

**Conclusion**

Safetipin is a personal safety application designed to keep the community and especially women safe. It goes beyond typical women safety apps that focus exclusively on emergency situations, and offers a wide range of interactive features that will help the user proactively plan and respond to situations affecting personal safety. Safetipin provides safety information on the basis of safety audits, for safe and inclusive urban design and city planning. The study provided an inside view of the operations of Safetipin as woman-safety application. It also offers what could be the ideal inclusions in a women-safety application to render it more interactive and effective so as to foster personal safety in the community. The study further reviews the safety readiness of Thiruvananthapuram City. At the time the survey was done it indicated what is left to be accomplished to ensure women safety. Finally, the research team from Loyola could be part of a national initiative and engage meaningfully in contributing towards women safety. Women safety and women empowerment are closely interlinked as only a safe and secure woman can find ways to empower herself. Such initiatives will enable women to come confidently out of the confines of their home, challenge the social hurdles, and carve a niche for themselves in society. Women-Safety Apps could perhaps be a tool towards women empowerment.

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