# Examining Safety Practices in Male Undergraduate Accommodation Facilities at the Federal University of Technology Akure, Ondo State: A Comprehensive Study

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Date of Submission: 02-05-2024 Date of Acceptance: 10-05-2024

#### **ABSTRACT**

Housing is an essential need to man and in fact researchers like Agbola (2001) argued that food is the one of man's three basic needs that is more important. The availability of housing facilities in form of students' hostel could be a determinant on student's coping ability with other academic activities in the institution (Emmanuel, 2017). Different researchers affirmed that students can perform excellently well in academic studies if availed comfortable living conditions in students' hostel provided. This study established the concept of safety and emphasized the importance of safety in students' hostel.

The research reviewed literatures on trends safety trends in student hostel accommodation, the concept of safety from security and fire hazard perspective. The research proceeded to review Standard safety practices using the Ray Jeffery 1971 concept of Crime Prevention Through Environmentaal Design (CPTED.) and Asodike and Abraham (2011) fire safety standard. To achieve the aim of the research, assessment of safety practices in undergraduate male hostels in the Federal University Technology, Akure (FUTA) was conducted by comparing the safety in the against the previously highlighted hostels standards.

The research concluded with the claim that safety practices in undergraduate male hostels in FUTA is below standard as inferred from both safety standards (CPTED and Fire Safety standard). Critical failures including poor lighting condition, lack of perimeter fencing, poor surveillance, inadequate access control, lack of fire safety

equipment and provisions were highlighted and recommendations were suggested based on the revelation of the study.

**Keywords:** Hostels, safety, Crime prevention through environmental design, fire safety, and safety practices

#### I. INTRODUCTION

Accommodation is arguably one of the most significant facilities of top priority to students in universities across the globe. The availability of this accommodation facility is a determinant of students' coping ability with other academic activities in the institution (Emmanuel, 2017). This is linked to the believe that no university student is capable of attending lectures, conduct researches as required and actively participate in extracurricular activities without a suitable shelter to relax at the end of the day. It is therefore obligatory that issues relating to availability, affordability, distribution and management of student hostels in universities are given top level consideration in a bid to students" hostel life and in the long run, the university system (Geoger, 2017).

In a similar vein, Agbola (2001) stated that housing is one of the three primary needs of man with the provision of food of being the only more important need. He proceeded to affirm that housing is very special to students in tertiary institutions as good accommodation is an "ingredient" for proper assimilation for what is taught in lecture rooms. Despite the establishment of a strong relationship between housing and health by researchers, more than 100 million people across the globe are homeless, and more than a

billion live in abodes which are not only inadequate but also negatively affect their health (Godshall, 2000).

Hostel connotes a place that is built for people to reside for a limited duration of time. Hostels are seen in different institutions ranging religious. educational. or business (commercial) hubs as residential facility constructed to house people. This makes it common to see people housed in primary quarters of residence when they are away from their homes. These residences are called camps or hostels; they are usually equipped with services and facilities to make life comfortable for the inhabitants. Suki and Chowdhury (2015) explained that "a hostel is referred to a place where people can stay when their residence is located far from the educational institution and which is considered essential to students' needs, which is also called student housing". Hostel as term in school setting is therefore explained as an accommodation provided for students who are far away from their home/parents. Hostels exist across the distinct types and levels of education; secondary often referred to as high schools, colleges of education. vocational schools, polytechnics and universities. Overall, the hostel is a residential facility or apartment equipped with necessary facilities and essential building services that aids comfortable living for students who are away from their primary place of living.

Safety is needed in the environment and with greater emphasis in places with possibilities of occurrence of unforeseen events. The school environments, universities included, are not excluded from these unforeseen occurrences. They exist in form of chaos, student riot, crisis, burglary, sometimes communal clash in adjoining areas etc. Hajek (2013) established that issues of crisis in the education sector especially the university system are almost unavoidable for numerous reasons. This is owing to the fact that students will always embark on rampage when their needs are not met. This expression of anger from dissatisfaction takes different forms could be between students and

school administration, fellow students, and sometimes, the host community.

The Federal University of Technology, Akure (FUTA) established in 1981, is a government- owned university located in Akure, Ondo State Nigeria. The founding of the university was driven by Nigeria's government will to create universities that specialized in training students and producing graduates equipped with practical and theoretical knowledge in technologies. (FUTA, 2010)

On-campus residence halls otherwise referred to as hostels are located in close proximity to academic buildings (lecture theatres), sport complex, and some other university facilities, with amenities including reading room, common room, and laundry facilities. Room types include single rooms and shared rooms with multiple student occupants from 4-6. The hostels are staffed with hall supervisors who are saddled with the administration and management of the facilities. FUTA"s hostels under student leadership organize different activities and programs to foster student development and community engagement. (Wagner and Jackline, 2022).

According to The Higher Education THE, (2023) Undergraduate student population of The Federal University of Technology, Akure is about 13,000 with a 28:72 student ratio of females to males. Mathematically, this implies a 3,640 female student"s population and a 9,360 male undergraduate student population. This explains the basis more male undergraduate student hostels than female.

Male undergraduate hostels in the university are located across the campus main areas, Obanla and Obakekere with heavy presence in the former than the later. Undergraduate male hostels in Obanla area of FUTA include the MKO Abiola Hall, Peter Adeniyi Hostel and E.A. Adeboye Hall. The Obakekere area of FUTA houses the Akindeko Hall of Residence, often time referred to as the "heartbeat of FUTA", with an accommodation capacity of 636 students.

S/N	Underg	raduate Male	Hostel		Location	Year	of	Capacity
						commis	sioning	
1	MKO A	biola Hostel			Obanla, FUTA			300
2	Prof. Peter Adeniyi Hall of Residence			Obanla, FUTA	2011		184	
3.	E.A.	Adeboye	Hall	of Residence	Obanla, FUTA	2018		350
4.	Chief	Gabriel Akind	deko Hostel		Obakekere, FUTA	1972		636

Table 1: Details of Undergraduate male hostels

Source: Author (2023)

#### II. LITERATURE REVIEW

## 2.1. Global Safety trends in Universities Student Accommodation

Numerous researchers posit that students can perform excellently well in academic studies if availed comfortable living conditions in students" hostel provided. (Krisgman et al, 2015, and Sitar and Krainc, 2008). They also proceeded to establish that rehabilitation and correction of deficiencies of facilities in student housing are necessary operations for improvement of living standards for students residing in these facilities. Unfortunately, hostels in the universities and other tertiary education institutions across the country are below par in terms of safety, and level of against unforeseen preparation occurrences (Khajehvandi, et al. 2017).

Over the years, few studies have been targeted at assessing safety status of student hostels in universities; among them are Sanni-Anibire and Hassanain (2015) with a study focused on assessing the status of fire safety and preparedness in emergencies in universities. The results of the study revealed equipment for firefighting are at an optimal level and a safe discharge time of the students at 190s. Architectural design problems and improper size and position of exit doors was declared inconsistent in the evaluation.

In the study of Bashiri and Khajehei (2013), aimed at assessing married couples who as students occupying the hostel accommodation of the Shahid Beheshti University, some deficiencies were revealed which include the wrong positioning of some furniture causing reduction to the width of the walk ways in case(s) of any emergency escape, bad connections of the suspended ceilings prone to collapse in event of any earthquake or other earth movement, installation of the glass wall around the emergency stairs which is susceptible to collapse in occurrence of earthquake and fire incident, bad connection of the fire extinguishers and absence of speedy access to them (fire extinguishers) during fire, and lack of railings for stairs and presence of fractured interior stairs in some parts of the building.

In a similar study of Arghami et al. (2016) conducted on the student hostels of Zanjan University of Medical Sciences (ZUMS), the overall state of fire safety in the students" buildings was revealed to be at 58.6 percent. According to the study, in no hostel accommodation available in the university was the manual fire alarm system used alongside other fire equipment except the fire extinguishers. Also, computer rooms and student libraries of hostels were not equipped with any fire extinguisher.

# 2. Concepts of Safety in relation to Students' Accommodation i. Security and Safety

Security has examined and defined over time by numerous literatures with a similar inference that it is a "major underlying need", with emphasis on the context or form of feeling safe. A popular example is as defined in the Encarta Dictionary (2008), the definition put into cognizance, the citizens" view of security and defines it as "the state of being safe and protected; the assurance that something of value, e.g. job, will not be taken away; something that provides a sense of protection against loss, attack, or harm; and, precautions taken to keep something safe from crime, attack, or danger, e.g. security measures". In similar stance, Alemika (2015) in his public article opined that security can be viewed from two different perspectives which are; a condition and feeling, while in contrary, others argue "that security is a tag attached to a state of undesirable condition experienced by someone." Alemika proceeded to define security as the "protection from danger, fear, violence and want that impair, or capable of impairing the full development and existential wellbeing of citizens. Security implies the absence of fear and want"

Until recent times, both academic literature and government policies has always viewed security as a matter of national concern i.e. limited to the protection of a country from international trespass and aggression insurrection against an administration. Security in another dimension is the state of freedom from, or resilience against, potential harm and other undesired coercive change from superior or external forces. Individuals, institutions, objects and social groups may be beneficiaries of security. Gee (2016) affirmed that it is impossible to know with accuracy the extent to which a subject is "secured", perception and views on security may vary greatly.

Eseyin (2017) explained that in the university arrangement, especially in hostels accommodation, security is perceived as the establishment of an enabling atmosphere that aids the reduction or total elimination of the possibility of occurrence of danger, harm, or losses capable of arising due to an unforeseen occurrence. This is because insecurity in universities hails in different forms of unanticipated occurrences which include but not limited to chaos, crises, burglary, student riot, and communal clash.

Ekpoh et al., (2020) in their research titled "Security Challenges in Universities: Implications for Safe School Environment" established that the challenges mitigating against security personnel across Cross River State. Nigeria included but not limited to cult-related happenings, kidnapping and abductions, drug related offenses. unlawful possession of arms by students, students" demonstrations, crisis erupting from students" activities. burglary union οf student accommodation, stealing, and sexual assaults, All these were the result of some factors, which include; the paucity of access and control. Individuals or gangs could access either by walking or driving through the gates into the university with no check of any form. Absence of checks eased path for petty criminals, armed robbers, and other crime perpetrators to go through and unleash mayhem on the students" populace and other unsuspecting members of the university community.

#### ii. Fire and Safety

Safety according to Ciekanoski, Nowicka and Wyrebeck (2017) was defined as all processes and efforts towards achieving a wanted state by individuals, groups or the state. It is connected to the dynamics of changes in the community that are influenced by a present situation per time in the country. Furthermore, safety is also viewed as the desire for peace, calm and development opportunities. It is also related to the assurance that the party is not endangered. Popular researcher, Abraham Maslow established a need for safety. Safety sits at the second position in the pyramid of needs just after physiological needs. It maintains that, to attain other needs, man must be almost absolutely sure that he is safe. The entire concept of safety in the Maslow"s pyramid of needs is interpreted as freedom from fear. (Motywacja, 2010).

Of all the hazards capable of happening to buildings, fire is the oldest; in fact it is as old as since the first use of buildings by mankind. Fire incidents are the most occurring hazard that occupants of buildings experience. Fire causes death of more people annually than other forces of nature (Tom, 2015) but also at the same time, fire is highly helpful. It availed humans the first type of portable light and source of heat. Not only these, fire helps in cooking food, forging metal tools i.e. blacksmithing, pottery, harden bricks and power source for heavy plants.

Fire outbreak is a problem of repeated yearly occurrence in Nigeria. Annual reports of fire outbreak are always recorded in the country.

Numerous losses owing to fire disaster recorded in residential buildings, institutions, oil facilities, commercial buildings, factories, IT platforms and other facilities globally amount to billions of dollars annually (Ugbebor, 2015). Fire is a wild hazard across the entirety of a university premises. The aftermath of fire incident in a university is always catastrophic and may result into but not limited to threat to the lives, general wellbeing and safety of students, partial or total damage to property, in some cases loss of the entire property and major disruption to business operations or opportunities. Managing risk associated with fire calls for fire safety precautions based on the integration of proper prevention and protection efforts dependent on the use of the building, occupancy level and accommodation capacity.

The Federal University of Technology, Akure (FUTA) has a high population of people which consist of students, lecturers, petty business owners, and traders making it an obligation to maintain the safety and health of its workers, students and everyone else who that constitute the University community. Therefore, extreme care must be exhibited and safety precautions followed to establish standard safety practices in a bid to avert fire hazards.

A study conducted by the Fire Disaster Prevention & Safety Awareness Association of Nigeria (2018) established that the level of awareness on fire safety in the country is significantly low. Only about 5% of 200 million people population in the country, Nigeria has knowledge of fundamental fire safety and about 82% lack this knowledge. Asodike and Abraham (2011) in a survey on safety practice in tertiary education institutions in Port Harcourt; Rivers State opined that the minimal occurrence of fire hazards in universities in Nigeria is possibly responsible for the lack of planned periodic safety training of staff and student populace, refusal to acquire fire extinguishers amongst others. A similar study carried out Ajao and Ijadunola (XYZ) on fire safety practice in Ile-Ife, Osun, Nigeria shows that about 62% of the respondents had knowledge level ranging from good to excellent on preventing fire outbreaks in offices. On the other hand, about 28% of the office premises had functional wall mounted fire extinguishers. Below 10% of the premises were equipped with fire alarm, emergency lighting system, smoke detector and fire exits. The study proved that there was the practice of fire safety in offices in Ile-Ife is poor.

#### 3. Causes of Fire hazard in Universities

Human factors including but not limited to negligence, carelessness, and lack of safety awareness are among the most common causes of fire hazards. However, in University premises, common causes of fire outbreak fall under the following categories, namely Electrical appliances. cookers and related cooking gadgets and fittings, exposed flames and lights, water heaters, in some cases, chemicals and Liquefied Petroleum Gas (LPG), uncontrolled fire from waste management and rarely, arson; case of deliberately setting fire, fires resulting from electrical gadgets and installations such as power panels, inverter and air conditioners. Andrew and Martins explained that there are varieties of ways that electricity passing through electrical gadgets and electrical installations can lead to fire, these could be caused by: loose connections, overloaded wiring, and electrical arcing often referred to as sparking.

Low level of awareness among staff and students of universities regarding the priority of easily flammable and combustible material waste is also a cause of poor waste management. A common example is the irresponsible disposal of rags which are already contaminated with pyrophoric chemical in the school laboratory by students; this is capable of triggering a wild fire.

## 4. Global Standard safety practices in Universities Students' Accommodation

1. Crime Prevention Through Environmental Design (C.P.T.E.D.)

The concept, "crime prevention through environmental design" was birthed by Ray Jeffery in his book titled Crime Protection Through Environmental Design in 1971. Jeffrey observed the significance of averting occurrence of crime in the future rather than taking a reactive approach after a crime has been recorded. He opined that spatial factors play an important role in the possibility of occurrence of crime. Shariati (2017), argued that manipulating these spatial conditions can efficiently reduce crime rate. C.P.T.E.D. was defined by Crowe (2000) as an acronym which affirm that the right design and right use of the built environment can contribute to a reduction in the fear of crime and it occurrence and in the long run, improvement in quality of life.

This is contrary to approaching combatting crime concerns with the use of locks, rigid barriers, security patrols, fabricated metal gates, and security gates etc., CPTED promotes aesthetically pleasing and high quality solutions as the primary responses that focuses to achieve the legitimate use of space. CPTED can also be applied without messing with the conventional use of space. Very easy to adopt and mostly economical to implement, especially when done at the planning and design stages of a project (National Crime Prevention Council, 2003), universities students" hostel in this case.

Arguably, CPTED can be a complex strategy with diverse interventions and behavioral responses from different strata of users, the concept is therefore examined under the headings as below:

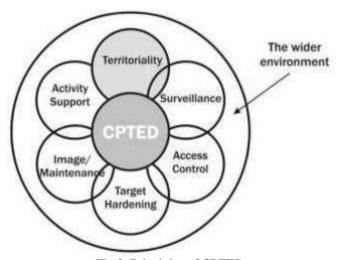


Fig 3: Principles of CPTED

Source: Cozens et al., (2005)

#### I. Territoriality

Territoriality is a concept of design focused on reinforcing ownership/possessory right or proprietary concern and "ownership sense" in rightful owners/users of space and reducing possibilities of trespass by discouraging intruders who may be threat to security. Territoriality may exist in different forms including signage and real barriers i.e. fences.

Getting rid of unassigned spaces and clearly defining spaces for designated purpose and monitoring of the space also amount to element of territoriality. However, it is controversial that improved level of territoriality is linked to low crime record and possibility of crime (Brown, 2001; Ratcliffe, 2003).

#### II. Surveillance

This is concept of having "an eye on the street" such that the surrounding is made undesirable for criminal activity (Steventon, 2012). When offenders observe that they are watched and monitored, they become less likely to commit crime with the awareness of the possibility of intervention, apprehension and if found guilty, prosecution.

Design element such as windows (see through), lighting, furniture arrangement, closed circuit television (CCTV) cameras and landscaping elements influences the observers" vision in any place. (Zahm, 2017).

#### III. Access control

Access control in CPTED is a concept directed at limiting the opportunities for crime by refusing access to potential threats and creating a high level perception of risk in crime perpetrators. Control gives a 'sense of direction' and coordinates the flow of ingress and egress in the building, making it visible those coming and going in real time. It is very important that buildings do not have unnecessary multiple entry and exit points. By limiting the points of entries, one can stop unauthorized people from being where they are unwanted. Both physical and symbolic barriers can be employed to coordinate, control or restrict people movement thereby reducing opportunities for crime perpetrators (Lee, et al., 2016).

#### IV. Management and Maintenance

A sufficiently maintained space especially public one attracts people and becomes a famous meeting place, this is related to the territorial reinforcement principle which proffers that a space is used adequately and well maintained (Lee et al., 2016). Establishing requirements, proper

maintenance and quality standards, protects the health of the public, safety and welfare condition in all existing spaces, either commercial or residential. Property maintenance and management must be put into consideration in the design phase of a project, this is because the materials and finishes have an effect on the nature of maintenance to be adopted over time (Kruger, et al., 2001).

#### V. Activity support

Activity support entails the utilization of graphics design communication and signage to express and encourage preferred usage patterns of public space. Crowe (2000) expressed how "safe" operations (acceptable activities) in "safe" locations (high activity levels with surveillance installations) attract the populace who may converge and by so doing discourage potential activities of criminals. This concept incorporates elements of surveillance, access control and territoriality.

#### VI. Target hardening

Target hardening is the act of increasing efforts to ensure a criminal expends in the process of committing a crime. It is the most traditional approach to the prevention of crime. It is aimed at limiting or totally denying access to a criminal via the installation of physical barriers for example gates, fences, electronic panic alarms, locks, and security patrols. Tseloni, et al. (2004) propounded that "security measures in the home" is one of the four variables responsible for victimization rates in buildings in the US, UK and Netherlands, which indicates the effectiveness of target hardening as a measures to mitigate against burglary at a world standard level.

#### 5. Fire Safety Standard

Fire safety is a huge concern in university hostels. Hostels in Nigeria are commonly over populated with a very high risk of fire outbreak owing to the presence of combustible materials like furniture, bedding and appliances. Also, large percentages of students are inexperienced and young and, and are not aware of fire safety measures.

There are numerous amounts of fire safety standards that apply to university accommodations. These standards are put in place by the local government or the university authorities itself. According to Asodike and Abraham (2011), some significant fire safety standards applicable to university hostels are:

#### I. Fire doors

Fire doors must always be closed at every point in time to avoid the spread of fire in cases of outbreak. These doors are built to be self-closing or coupled with self-closing devices.

#### II. Fire alarms and sprinkler systems

University hostels must be facilitated with working sprinkler systems fire alarms and fire alarms. These devices are to be tested regularly and students trained on the evacuation procedures.

#### III. Fire extinguishers

Fire extinguishers are to be mounted or stationed at easily accessible areas of the students" accommodation. Occupants of the students" hostel are to be trained at interval on the use of the fire extinguishers. In addition, the extinguishers should be serviced every 6 months.

# I. Provision of fire safety education and enforcement of fire safety rules

Residents should be educated on fire safety procedures including how to prevent fires, safe evacuation of an affected building, and usage of fire extinguishers. Hostel/Hall wardens should enforce promulgated fire safety rules, for example, no smoking in the accommodation, prohibition of incense or candles, and overloading of electrical sockets.

#### II. Regularly inspecting fire safety equipment

The facilities management department of the university is obligated to carry out a planned preventive maintenance on the fire safety facility including the fire alarms, fire doors, sprinkler systems and fire extinguishers to ensure that they are functional. A study by the National Fire Protection Association (NFPA, 2017) established that fire outbreaks in university hostels are mostly caused by cooking, smoking and electrical appliances. Same study also claimed that fires hazards in university hostels occur more during the winter months. Another study by the NFPA (2019) opined that students in hostels are more likely to be victims of fire outbreaks if they are unfamiliar with the evacuation procedures from the building. The study further proceeds to state that students are more prone to panic and exhibit poor decisions in event of fire outbreaks if not well trained on fire safety procedures.

A similar research by the University of Maryland discovered that fire safety education is effective in the reduction of risk of occurrence fire hazard in university hostels. The research shows that students trained in fire safety education are more likely to report a fire incidence, evacuate a burning building safely, and make use of a fire extinguisher efficiently.

The above studies show the significance of fire safety standards in university hostels. Following the standards alongside other fire safety procedure can aid universities in the protection of students from fire outbreaks.

#### III. METHODLOGY

Following the review of literature on safety standards from the environmental design and fire safety concept as a tool to combat breach of safety "security-wise" and protection from fire incident respectively, this section assesses the practice of safety in Male Undergraduate hostels in the Federal University of Technology, Akure (FUTA), Ondo State.

1. Assessing safety practices in undergraduate male students' hostel in FUTA using the CPTED

	pproacn		MALE UNDERGRADUATE STUDENTS' HOSTEL IN FUTA				
S/N	CPTED	SUB-CPTED		P. Adeniyi Hostel	E. Adeboye Hostel	G. Akindeko Hostel	
1	Territoriality	I. Perimeter fencing	Present	Absent	Present	Present	
		II. Electric Wire frame	Absent	Absent	Absent	Absent	
		III. Hostel Boundaries	Present	Absent	Present	Present	

#### $International\ Journal\ of\ Advances\ in\ Engineering\ and\ Management\ (IJAEM)$

Volume 6, Issue 05 May 2024, pp: 183-194 www.ijaem.net ISSN: 2395-5252

		IV. Landscape	Present	Present	Absent	Absent
2	Surveillance	I. Lighting (Night)	Absent	Absent	Present	Present
		II. CCTV	Absent	Absent	Absent	Absent
		III. Obstruction from Landscape	Absent	Present	Absent	Absent
3	Access Control	I. Pedestrian Walkways	Present	Present	Absent	Present
		II. Access control security staff	Absent	Absent	Absent	Absent
		III. Limited Access & Exit	Present	Present	Present	Present
		IV. Digital Access Control	Absent	Absent	Absent	Absent
4	Management & Maintenance	I. Burglary Proof	Absent	Absent	Absent	Absent
		II. Lighting Installations	Absent	Absent	Absent	Absent
		III. Doors & Gates	Absent	Absent	Absent	Absent
		IV. Fire Safety & Extinguishers	Absent	Absent	Absent	Absent
5	Activity	I. Graphic	Absent	Present	Present	Absent

Support Communication

Table 2: Assessing safety practices in undergraduate male students" hostel in FUTA using the CPTED framework

Source: Author (2023)

Scaling practices in undergraduate male hostels in FUTA using Territoriality, it can be seen that of the 4 male hostels, only P. Adeniyi hostel is the only student accommodation without perimeter, this is an indicator for poor territoriality, no clear boundary between the facility and adjoining spaces which exposes the hostel to possibility of having intruders compared to other male hostels. No undergraduate hostel in FUTA has the electric wire frame which is also a protective installation above fences to increase security.





Adeniyi Hostel without perimeter fencing Source: Author (2023)

Owing to the fact that all hostels have perimeter fencing except the Adeniyi hostel, this makes it the only hostel without boundries. Considering landscape has an effective tool for territoriality, the E.Adeboye Hostel lacks landscape and therefore movement within the large perimeter fencing bounding the hostel is unrestricted.



Abiola Hostel without electric wireframe Source: Author (2023)

surveillance, adequate On lighting especially at night plays an important role in effective security. This is not paid attention to in 50% of the male student hostels. The Abiola & P. Adeniyi Hostel are dark at night time with nonfunctional bulbs and pole lights in the common areas of the hostel. E.Adeboye hostel is well lit with credit to the school management while lighting in Akindeko Hostel is allegedly sponsored by the hostel executives. There are no CCTV cameras in sight in any of the undergraduate male hostels. This reduces the sense of being watched or monitor in the environment which exposes the hostels to crimes of various degrees, this also

makes apprehension of crime perpetrators extremely difficult. P. Adeniyi score low in surveillance with the presence of large plants which have created shed and obstruct surveillance from the occupants over the entrance.

Generally, FUTA are equipped with walkways with guides movement and is easy to monitor movement. The effective of access control staff often referred to as hostel portals is extremely low. Documentation of hostel occupants among the student populace is manual which makes it difficult to ascertain the validity of claims among people moving in and out of the hostels. On the good side, 100% of the male hostels have limited access and exit. The students" accommodations are designed such that there is a general entrance and exit monitored by the hostel portals. This is effective for security control.

On inspection, security installations such as metal gate, burglary proof, lighting, room doors and fire extinguishers are in deplorable state across 100% of the male hostels. Rust and falling members are visible on metal barriers and gates, absence of lighting fittings in some cases etc. are evident indicators of poor management and maintenance of the students" accommodation. In the long run, these conditions could be capitalized on by criminals to access the buildings which amount to breach of security.

Activity support is on a 50% rating as it is only visible in 2 of the 4 hostels, P. Adeniyi and E. Adeboye hostel. There are visible indicators of activities parts and portions of the male accommodations are designated for. Examples are the common room, general reading room, laundry and so on.

# 2. Assessing safety practices in undergraduate male students' hostel in FUTA using Global Fire Safety Standard.

Based on previously reviewed literature by Asodike and Abraham (2011), standards an hostel facility should have include fire doors, fire alarms, fire extinguishers, a regular inspection of fire equipment and fire safety education. It is a sad reality that except fire extinguishers, none of the stated standard is present in undergraduate male hostels in FUTA. Emergency exits in the hostel facility are locked, the P. Adeniyi hostel to be precise while the other hostels do not have this exit.



Picture showing a locked emergency exit at the P. Adeniyi Hostel

Source: Author (2023)

Fire extinguishers in the students" hostel are observed to be of different types, the DCP -Dry Carbon Powder and the CO<sub>2</sub> extinguisher. I closer look at this facilities revealed that they are not properly serviced and therefore not operational. Fire extinguishers according to standard are designed to be serviced twice yearly (6 Months interval), this is not the case in FUTA hostel as about 85% of inspected extinguishers are due for servicing both DCP and C0<sub>2</sub>.



Picture of C02 gas expired since 2017 Source: Author (2023)



Picture of DCP with indicator below pressure mark Source: Author (2023)

The above picture of the DCP extinguisher was captured at the E.Adeboye Hostel. The picture revealed that carbon powder in the cylinder is not pressurized and therefore will be ineffective at a time when it is needed.

Andrew and Martins (2007) stated that common causes of fire outbreaks in university premises, are from electrical appliances, cookers and related cooking gadgets and fittings, exposed flames and lights, water heaters, in some cases, chemicals and Liquefied Petroleum Gas (LPG). This is the case in male hostels in FUTA evidenced with open cables, poor socket connection, use of electric cookers in undesignated areas, room to be specific. This is a proof of poor safety practice in the hostel accommodation.



Pictures of showing bad electrical connection and a bad fitting – Akindeko Hostel Source: Author (2023)







Pictures of showing student cooking in undesignated area.
Source: Author (2023)

#### IV. CONCLUSION.

Comparing the state of safety practices in undergraduate male hostels in the Federal University of Technology, Akure (FUTA) to world standard, it can be inferred that the practice in FUTA is subpar. This is evidenced by the absence of basic fire safety control measures. To be specific, FUTA undergraduate male hostel lacks fire doors, smoke detectors, fire alarm and sprinklers, lack of fire safety training, poor inspection of fire safety equipment and poor management of facility as basic as fire extinguisher.

Using the Crime Prevention Through Environmental Design (CPTED), assessment of the male hostels reveals a woeful practice of safety. The level of failure is extremely bad that a hostel accommodation lacks perimeter fencing, P. Adeniyi hostel to be specific. Basic amenities such as lights in the hostel common areas are not in place. Overall, the E. Adeboye hostel at present is isolated and located in an area in the university which is just welcoming development, this makes it prone to criminal attack compared to another accommodation facility/hostel. It is deploring that based on this research, movement in the hostel is not controlled using landscaping and other means.

#### V. RECOMMENDATIONS

Based on the gaps between standard safety practices and current practices in undergraduate male hostels in the Federal University of Technology, Akure (FUTA) as revealed by this research, the following are recommended

I. That the university management constitutes a facilities management team saddled the responsibility of preparing and effecting a

- planned preventive maintenance (PPM) which will include inspection of fires safety materials and repairs of metal barriers, gates etc. among other responsibilities.
- II. That the university management deploys personnel from it works department at interval to inspect and correct damages, especially electrical fault related which is known to be a common cause of fire, a threat to safety.
- III. That perimeter fencing is built around the Peter Adeniyi Hostel. This is a basic requirement and is long overdue, this is one of the basic requirements as confirmed by the Territoriality scope of the Crime Prevention Through Environmental Design (CPTED) concept.
- IV. That the university management organizes an annual training session for students of the university hostels on safety procedures.

#### REFERENCES

- [1]. "Federal University of Technology, Akure". Archived from the original on 1 December 2010. Retrieved 2 August 2023.
- [2]. Agbola, T., Olatubara, C. O. and Alabi, M. (2001): Student On- Campus Housing at Bursting Point: A Case Study of University of Ibadan, Occasional Publication No. 14, pp. 7-10
- [3]. Andrew F, Martin M. Introduction to fire safety management, 1st edition, Butterworth- Heinemann Publishers, Linacre House, Jordan Hill, Burlington, MA 01803. 2007;307-346.
- [4]. Arghami S, Kamali K, Mahboubi M. Development of a Fire Safety Checklist for Dormitories. Journal of Human, Environment and Health Promotion. 2016;2:20-31
- [5]. Asodike JD, Abraham NM. An investigative analysis of the safety practices in private nursery schools in Port Harcourt metropolis. African J. Soc. Sci. 2011;1(3):118-130.
- [6]. Bashiri M, Khajehei S. (2013). Seismic vulnerability reduction and fire risk mitigation in dormitories. J Emerg Manag ;2:15-25
- [7]. Ciekanowski, Z.; Nowicka, J.; Wyrebek,H. Bezpiecze nstwo Panstwa w Obliczu Współczesnych Zagrożen;
- [8]. Emmanuel O. Eseyin, (2017): Safety Condition of Hostel Accommodation in Public Universities in Nigeria: Knowledge

- Review Volume 36 No 1, July, 2017: ISSN 1595-2126
- [9]. Fire Disaster Prevention and Safety Awareness Association of Nigeria, FDPSAAN; 2008. Available:http://www.firedisasterprevention.net/Abt.php
- [10]. Georger, F. B. I. (2017). Providing accommodation in higher institutions in the country in partnership with the NDDC.Retrieved from <a href="http://www.thenewswriterng.com/?p=425">http://www.thenewswriterng.com/?p=425</a>
- [11]. Godshall, R. (2000): Creating Communities. American School and University, 72(12), 150, 153-155
- [12]. Khajehvandi, Fahimeh Karamali, Seyyed Gholam Abbas Mousavi, Hamid Reza Saberi, Fatemeh Zabeti, Mahdieh Kaveh, Mojtaba Behzadi (2017): Assessment of Safety Status by Audit Method in Student Dormitories of Kashan University of Medical Sciences Social Determinants of Health Research Center, Kashan University of Medical Sciences, Kashan, Iran
- [13]. Krishnan AR, Nazri EM, Bakar EA, Mat Kasim M. A hybrid multiattribute decision making model for evaluating students satisfaction towards hostels. Adv Decision Sci 2015;(2015):1-14.

  Motywacja i Osobowo's'c; PWN: Warsaw, Poland, 2010; pp. 66–68.
- [14]. Sanni-Anibire M, Hassanain M.(2015). An integrated fire safety assessment of a student housing facility. Structural Survey 33:354-71
- [15]. Sitar M, Krajnc K. Sustainable housing renewal. Am J Appl Sci 2008;5:61-6
- [16]. Suki, N. M. & Chowdhury, I. A. (2015).Students" attitude and satisfaction living in sustainable oncampus hostels:

  Malaysian Journal of Business and Economics, 2(1), 35-47
- [17]. Ugbebor NJ. Modern safety principles and practices. First edition. Vertex Media Limited. Ilupeju, Lagos. 2015;104-109
- [18]. Wangare, Jackline (2022). "The most beautiful university in Nigeria: Top 10 in 2022". Legit.ng Nigeria news. Retrieved 14 May 2023.