Harnessing the Benefits of 4IR Technologies in Curbing Incessant Prison Breaks in Nigeria

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ABSTRACT: One may have lost the counts on the incessant jail breaks in Nigeria especially in the last three years. Nigeria's poor security situation is being made worse by recurring prison breaks, which have resulted in more criminals returning illegally to the society. Security experts and analysts blame the recurring prison breaks on factors such as infrastructural deficit, overcrowding of cells, poor remuneration and equipping of staff, inadequate technology among others. Despite the tremendous benefits of technologies nowadays, Nigeria correctional centres are lacking state of the art technologies especially on the aspect of security of inmates and its property. Nigeria correctional centres are in dire need of CCTV installations across the country. This paper x-rays the immediate and remote causes of jailbreaks in Nigeria and proposes a model for prison security using CCTV, IP Camera and Video Data. It also discusses benefits of having CCTVs installed in our correctional centres to facilitate the coordination of incident responses, gather evidence, and improve safety. The paper however, recommends that the federal government as a matter of urgency invest in 4th industrial revolution technologies (4IR) for reliable security.

KEYWORDS: Technologies, CCTV, Video Data, IP Camera & 4IR.

I. INTRODUCTION

In 2021 more than 2,500 inmates were freed in three jailbreaks. At least 4,307 inmates have escaped from Nigeria's prisons since 2017. Lagos-based online newspaper TheCable reported this month, based on compiled media reports. Most of Nigeria's recent jailbreaks seem unconnected although the attacks are carried out in a similar manner using explosives, according to security analysts. A good number of those who have escaped in such attacks were awaiting trial. Nigerian prisons hold 70,000 inmates but only about 20,000, or 27%, have been convicted, according to government data. Nigeria's extremist insurgency, carried out by Boko Haram and an offshoot known as the Islamic State West Africa Province (ISWAP), is blamed for violence that has caused the deaths of more than 35,000 people and displaced more than 2 million people, according to the U.N [14]. The prolonged instability, hunger and lack of health services caused by the insurgency have indirectly caused the deaths of more than 300,000 additional people, says the U.N. The extremists' violence is the most serious security challenge in Nigeria, Africa's most populous country with 206 million people, which also is battling violence in the northwest area by rebellious herdsmen and a separatist movement in the country's south.

Nigeria's penitentiary system has long been saddled with a multitude of problems. The country's criminal and penal codes are archaic, while the infrastructure is mostly a relic of the British colonial era (the Benin prison dates back to 1906), long before Nigeria's population explosion and a consequent rise in crime [7][8]. Even worse, the facilities are some of the most overcrowded globally, with Nigeria ranking 49th on a list of 206 countries in the World Prison Brief published by the University of London's Institute for Crime & Justice Policy Research [15]. The Ikoyi prison, built in 1955 for a capacity of 800 people, now accommodates approximately four times that number. The absence of a public security surveillance system has also placed the burden of ensuring security on manual monitoring by security personnel, who are underpaid and underequipped.

CASES OF JAILBREAKS IN NIGERIA

Nigeria's poor security situation is being made worse by incessant jailbreaks, which have resulted in more criminals returning illegally to society, experts have told have said. Security experts and analysts blame the recurring prison breaks on an infrastructural deficit, overcrowding of cells, the prolonged trial of suspects, understaffing, poor remuneration and equipping of staff, inadequate technology, bribery and corruption, and other institutional challenges bedevilling the correctional centres across the country [9]. Since October 2020 when hoodlums took advantage of the #ENDSARS protest to attack three Nigerian Correctional Service (NCoS) facilities in Edo and Ondo states, releasing over two thousand inmates and killing about a dozen security agents manning the facilities, the country has continued to witness more incidents of prison breaks [14]. At least 2,051 inmates escaped after the October 2020 jailbreaks in both states while some of the inmates voluntarily returned and turned themselves in.

There have been at least 13 other jailbreaks since the October 2020 incident with at least six of them successful. In the past year, 5,238 inmates have escaped from various prisons across Nigeria, according to a PREMIUM TIMES analysis. The prison break at the Jos Medium Security Custodial Centre on November 28 where 262 inmates escaped is one of such jailbreaks [14]. It came just a few weeks after that of Abolongo Custodial Centre in Oyo State where unidentified gunmen freed hundreds of inmates. Just a month before that, a similar incident happened at the Kabba correctional centre in Kogi State [10]. Two security personnel were killed in the process while hundreds of inmates escaped. Six months earlier, a total of 1,844 prisoners were freed when gunmen suspected to be members of the outlawed Indigenous People of Biafra (IPOB) attacked another correctional facility in Owerri, Imo State.

Figure 1: Assembly of Biafra agitation (google.com)

Security experts believe these jailbreaks may worsen if strict actions are not taken. PREMIUM TIMES in its report examines why Nigerian prisons have increasingly become under siege. The paper summarized the following points:

Loopholes in operations of Nigerian prisons

The Nigeria Correctional Service (NCoS), formerly known as the Nigeria Prisons Service (NPS), has remained in the eye of the storm due to the growing trend of jailbreaks across Nigeria. Despite the billions of naira annually budgeted for the agency, the structures in many prisons across Nigeria remain dilapidated [16]. Prison cells are overcrowded and there is a shortage of prison vans to convey inmates to court for trial. Staff and prison officials are also poorly paid. Last year, the House of Representatives expressed displeasure at the state of the custodial centres and moved to probe the N613 billion allocated to the agency in the last 10 years (2010-2019). The lawmakers noted that the federal government spends N17 billion every year to feed inmates in 244 correctional centres but inmates still live in un-conducive environments, a situation they said amounts to the violation of their human rights [6][4]. After the attack on the Kogi correctional centre in September, the Human Rights Writers Association of Nigeria (HURIWA) called on

President Muhammadu Buhari to sack the Comptroller- General of the Nigerian correctional centre, Haliru Nababa, for failing to secure correctional centres across the country [10].

Statistics

Available statistics show that the current administration has so far made the highest allocations to the prison sector in the history of the agency, but the impact is yet to show as the constant challenge of overcrowding persists. The sum of N4 billion was allocated in 2015; N14 billion in 2016; N16.6 billion in 2017; while higher allocations were made in 2018 and 2019, with each year having over 70 per cent recurrent expenditure[14]. The National Human Rights Commission had in a 2012 audit of the Nigerian prisons, submitted that prison structures across many parts of the country were old and dilapidated as most of them were built in the 19th Century by the British colonial masters. The Azare, Bauchi, Ningi and Misau prisons, all in Bauchi State, built in 1816, 1820, 1827 and 1831 respectively, were ready examples [9]. Yet, little or nothing has been done to rebuild the infrastructural deficit and institutional challenges. According to figures provided by a global prison data organisation, World Prison Brief, awaiting trial inmates in Nigerian prisons have risen from 62 per cent in 2000 to nearly 70 per cent. The total prison population in 2000 stood at 44,450 but had risen to 73,248 by May 2020 [9].

Congestion of Jailbreaks

The National Coordinator, Legal Defence for Human Rights, Nzube Ojiugo, said jailbreaks became inevitable when people who had a small brush with the law were kept in prison for long, awaiting trial in perpetuity. "You lock up somebody who is presumed innocent for so many years and nobody is talking about trial and nobody is giving them information. They get to mix up with hardened criminals who are kept in prison for heinous crimes. Such situation breeds violence especially with several institutional lapses in Nigerian prisons which are glaring [14]," he said. "The justice system should recognize that people who come in conflict with the law are presumed innocent until they are convicted and therefore should treat their cases expeditiously. "There are people who were arrested for terrorism and have been there for five years without trial, it's natural especially for such people to revolt. And that's exactly what we are seeing. And of course, one successful jailbreak motivates another." [15]

Figure 2: Kirikiri Women's Correctional Centre, Lagos

For Michael Abiodun, a security analyst, the problem of prison congestion and jailbreak are intertwined. "The undue delay in the nation's criminal justice system, resulting in a huge number of awaiting trial inmates, contributes to this incessant prison breaks [5]. "While the number of people in prison is growing, there is not enough space, facility and prison staff to guard them. "The majority of persons in prisons are remand prisoners. The inability of the courts to process cases of persons charged with criminal offences quickly has led to congestion in our prisons." According to Mr Abiodun, one of the main reasons for the inability of the courts to expeditiously process criminal cases was the shortage of prison vans to convey inmates to court for their trials[14].

External factors

A retired colonel in the military, who asked not to be named, described the incessant prison break Nigeria is experiencing as the hallmark of the security crisis in the country. Different armed groups are unleashing violence in almost all parts of the country and when you look at it, they are the ones leading these attacks on prisons. Aside from releasing their colleagues and more hardened criminals to join their cause, this is also a way to undermine the Nigerian security architecture [16]. Correctional facilities which are expected to be the most secured government facilities in the country are now constantly invaded. This is a ploy by these armed groups to increase fear and apprehension in the society, he said. For Timothy Okoh, a security expert, those invading the correctional centres do not hatch their plans in isolation. He said he believes there is a connivance with prison officials for these jailbreaks to happen [1].

Jihadists Attack Jail in Nigeria's Capital, 879 Inmates Escape

Figure 3: Broken walls at the Kuje maximum prison following a rebel attack in Abuja. [8]

Nearly 900 inmates escaped in a jailbreak in Abuja, Nigeria's capital city, officials said Wednesday, blaming the attack on Islamic extremist rebels. At least 443 of the 879 escapees are still missing, Umar Abubakar, a spokesman for the Nigerian Correctional Service said, while hundreds of others have either been recaptured or turned themselves in at police stations [5]. Efforts are still in on top gear to track all fleeing inmates and return them to custody. Explosions and gunfire were heard at about 10 p.m. in the Kuje area when the attackers arrived and forced their way into the prison through a hole created by the blasts. The Islamic extremist rebels who attacked the prison have waged an insurgency in the country's northeast for over a decade[14]. Their attack on the detention facility freed many of their members who are inmates, as narrated by prison officials.
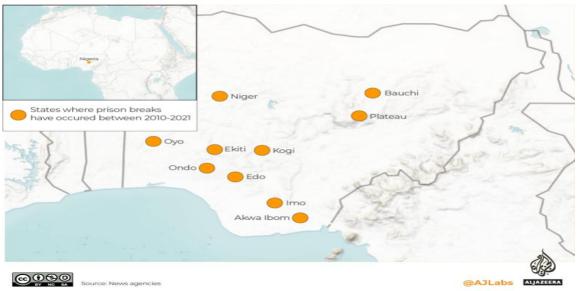
Figure 4: Prison Break by population[15]

Nigeria's penitentiary system has long been saddled with a multitude of problems. The country's criminal and penal codes are archaic, while the infrastructure is mostly a relic of the British colonial era (the Benin prison dates back to 1906), long before Nigeria's population explosion and a consequent rise in crime. Even worse, the facilities are some of the most overcrowded globally, with Nigeria ranking 49th on a list of 206 countries in the World Prison Brief published by the University of London's Institute for Crime & Justice Policy Research. The Ikoyi prison, built in 1955 for a capacity of 800 people, now accommodates approximately four times that number. The absence of a public security surveillance system has also placed the burden of ensuring security on manual monitoring by security personnel, who are underpaid and underequipped [15].

1) Prison reforms

Two years ago, a three-part undercover exposé on the corruption and squalid conditions within the system went viral and put the authorities in a pillory. Fisayo Soyombo, a journalist with local newspaper The Cable, spent two weeks in detention, first at a police cell and subsequently at the Ikoyi jail. His reports exposed the free flow of drugs in prison and rackets where warders collected as little as 10,000 naira ($24) to delete the jail records of released prisoners or anywhere between 20,000 and 500,000 naira ($48-$1,214) per night for special lodging within the prison. Following the revelations, Aregbesola, the interior minister, ordered an investigation into the issues raised "to determine if what was reported was right or wrong" but there has not been an update from the ministry yet [2].

Introduction of CCTV and IP cameras in our Correctional Centres

CCTV surveillance systems are synonymous with correctional facilities and prisons. CCTV cameras help to capture and document all incidents that involve drug use, inmate violence, and possible misconduct by officers [1]. Those are but a few examples of unfortunate actions which may take place within prison walls. CCTV surveillance camera enhancements are allowing correctional facilities to upgrade older CCTV systems to provide more extensive monitoring and strengthened level of protection for guards, staff and inmates. It is important Nigerian government look

towards the embracing smart technologies in curbing the incessant jail breaks in Nigeria [19]. Looking at the benefits we will get in providing formidable security measures for correctional centres.

CCTV Camera System Benefits

Improving Coverage: Correctional facilities and prisons Many prisons and are very large complexes with many different areas, that all require very close monitoring. Security personnel and guards cannot possibly be everywhere; CCTV security cameras establish constant coverage of the entire facility [1].

Inmate Monitoring: CCTV surveillance helps guards to pinpoint suspicious inmate activities and helps to prevent possible prison incidents from getting out of control.

Visual Evidence: New HD digital surveillance footage can be archived for long periods of time. Digital video footage has proven to be a valuable resource when investigating prison incidents.

Maintaining Order: Prisons can break out into large fights or gang wars in an instant CCTV cameras help to monitor areas with large prisoner groups when they convene. Prison yards, recreational areas, and dining rooms can be tightly monitored by surveillance from multiple CCTV security cameras.

Assault Reduction: Due to the nature of the correctional facilities and prisons are in the constant state of high tension and violence and fights are inevitable. CCTV cameras help to deter these events while also helping to analyze these incidents of criminal violence [3].

Drug Smuggling Prevention: CCTV surveillance systems play a key role in preventing visitors as well as inmates from attempting to smuggle drugs into the facility[14].

Monitor Behavior: There are times when correctional officers and guards can get out of line with inmates and these incidents are caught on camera. This video footage can be used to investigate these incidents and can prevent possible future misconduct.

Transporting: Escorting prisoners through cellblocks and hallways is dangerous and CCTV security cameras can provide higher levels of security and safety while inmates are escorted throughout the facility[19].

Enhanced Searching: Digital CCTV surveillance offers digital video feeds to be stored and archived in digital video recorders with hard-drives instead of old-school video cassette tapes. New enhancements in digital video allow for fast searching and easy backups of incidents.

Remote Monitoring: Prison video feeds can be monitored anywhere there is an internet connection. Authorized personnel can view multiple video camera feeds from a Mac, PC, Tablet, or Smartphone, rather than having to be in one room monitoring all the cameras at once.

CCTV Surveillance Camera Risks

Tampering: Inmates have a long time to think about and carry out any mischievous plot they have in mind. Inmates often attempt to damage and tampering with prison security equipment. Many correctional facilities already use vandal proof cameras to help curb this issue, but there is always the possibility that a CCTV camera will be vandalized or damaged and lose its video signal. This is why its imperative to have a backup security plan.

Reliance on Cameras: CCTV surveillance cameras installed in correctional facilities and prisons should not solely rely on surveillance equipment. Though effective, and undoubtedly necessary, security cameras help to maintain order within a prison environment but they are simply one part of the overall security effort. Guards, officers, and staff along with security alarms, access control, and other safety measures should supplement CCTV camera systems[19].

CCTV Surveillance Camera Configuration

There are many challenges when installing CCTV cameras in prisons and correctional facilities. With multiple buildings, cell blocks, hundreds of rooms, and a vast amount of outdoor and indoor areas to cover it can be hard to achieve constant surveillance. We suggest you consider the following before deploying a prison or correctional facility CCTV system:

  i.   Install cameras in your most high-risk areas?
  ii.   What key areas are most prone to violent outbursts or crimes?
  iii. Have you had issues with inmate assaults?
  iv.   Have you had reports or cases of officers mistreating inmates?

v.   Is there a history of drug trafficking and use at the facility?
vi.   What security systems does your facility have in place currently?
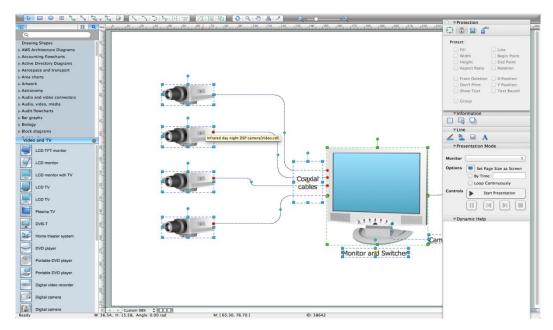vii.   Do you have sufficient security staff at the facility?

Figure5: CCTV Surveillance Camera Configuration [19]

The CCTV is the process that carried out using the video cameras for transmitting the signal to the specific location, on the limited set of monitors [17]. We are talking about the video cameras that are used for monitoring on such guarded objects as airports, banks, stores, military objects, etc. CCTV equipment is also used in the industrial installations, for surveillance in the public places, for recording the video on the digital video recorders [15].

Setup Advice for Prison CCTV Cameras

i.   Cameras should be installed in common areas, like prison yards, cafeterias, and recreational areas.
ii.   Cameras at all stairwells, corridors, and hallways, other any area that inmates may be escorted.
iii.   Cameras at all processing, identification and booking areas
iv.   All cell block activity should be monitored via CCTV video surveillance.
v.   Prison yards should be covered from all angles and should use PTZ cameras to supplement fixed cameras so guards may follow inmates that may cause problems
vi.   All entrances and exits the facility and separate independent cell blocks should have CCTV surveillance.
vii.   Prisons should be fully computerized in line with international standards.

CCTV Cameras for Correctional Facilities: The following CCTV cameras are recommended for installations in and around our prisons in Nigeria:
i.   Megapixall Wi-Fi Smart Home Bullet Camera
ii.   Megapixall Wi-Fi Smart Home Video Doorbell Camera
iii.   Megapixall Wi-Fi Smart Home Light Bulb
iv.   Megapixall Smart Outlet Plug
v.   Megapixall Smart Home Wall Light Switch
vi.   Megapixall Wi-Fi Smart Home Camera
vii.   Megapixall Wi-Fi Smart Home Auto-tracking Camera

PoE IP CCTV Cameras with NVR Security System.

One of the areas of disruptive technologies helping the global development is artificial intelligence (AI). AI security and surveillance is taking the major role in protection systems of sensitive areas with appropriate information than human being. The security systems also improved by designers e.g. DVR (Digital Video Recorder) system was the best system for local home user with less amount of Closed Circuit Television (CCTV) due to its price range as compared to NVR (Network Video Recorder) system, because they need extra switches and low maintenance. Today, NVR comes up with built-in switch hub and power supply and replacing the DVR system. As the NVR is network base system, it can be wired or wireless system with high range and can be used with multiple channels [18].

NVR Technology

NVR stands for Network Video Recorder. As the name implies, it based on networking as the input signals are from a network as compared to DVR where the input signals are based on direct wire connection. In NVR system, the video data encode and process at camera in digital format and send it to the NVR recorder to store it in a hard drive inside the NVR which can be view later by monitor or remotely, if it is connected to Ethernet router[12] [20]. Keep in mind that only IP camera can be used with NVR system as compared to DVR where analog cameras are used. Moreover, NVR is a wire or wireless system where DVR does not support wireless system. Also, both PoE and Non-PoE cameras can be connected to the NVR system based on its design. In some NVRs, there is no built-in PoE system and you will have to buy an additional PoE and switch.
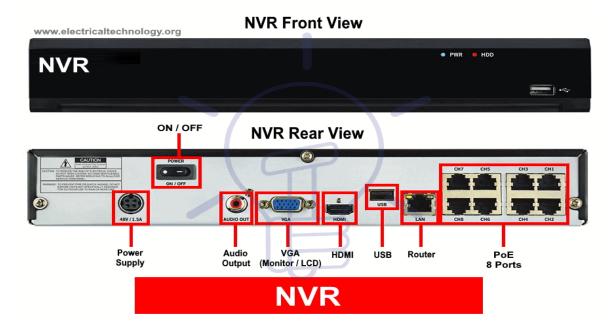

Figure 6: IP Camera Installation Wiring Diagram with NVR System [12]

The following are the steps to be taken when doing PoE IP surveillance camera installation.

i. Before proper installation, check all the IP cameras locally to make sure they are working properly.
ii. As external power does not needed in PoE IP Cameras, therefore connect only the cameras through PoE via Cat5 / Cat 6 cables. You can use passive PoE splitter and PoE Injector and the wire length can be 130 feet (40 meter). In other cases, up to 35 Watts power can be transmitted over internet and the Ethernet cable length can

be 328 feet (100 Meters). This way, the camera is able to transmit the video signal and receive the input power in the same cable.

iii. Now connect the other end of PoE injector (Cat 5/ Cat 5 or RJ45) to the back side of NVR slots labeled as PoE input ports as shown in fig. If cameras are audio enabled, the white RCA cable should be connected to the Input slot in NVR for audio data transmission.

iv. In our case, the power supply is built-in in the NVR system. So you can directly connect the NVR by three pin plug using 120V AC or 230V AC depends on your region. For smooth and reliable operation, it is recommended to connect the camera and NVR to the UPS (Uninterruptible Power Supply System) [13]

v. To check if the system works properly, connect the PC / LCD / Monitor by VGA cables. For HD, Use the HDMI cable to connect the Monitor / Laptop with NVR as shown in fig.

vi. You have done. Power ON the NVR and check if the live camera recording is showing on monitor as expected. You can configure the camera setting and IP by the user manual provided by the the manufacturer..
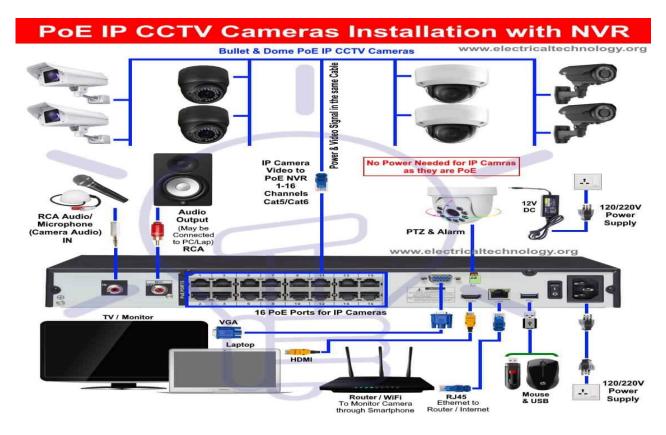

Figure 7: PoE IP CCTV cameras security system with NVR. [20]

For option wiring of NVR and IP CCTV Cameras, take the following steps:

i. If you need to connect an external pickup / microphone or speaker to the audio camera, connect the RCA connector to the Audio Input as shown in fig.

ii. For audio output, connect the RCA connector of Speaker to the audio output slot in the NVR.

iii. If you want to install an alarm or Pan, Tilt and Zoom (PTZ) camera to monitor the different angles views, then connect the RS485 cable to the RS232/RS485 Slot of NVR. Additionally, connect audio, video and power cables to the camera as well as NVR slots as shown in wiring diagram.

iv. USB and mouse can be connected to the USB port on NVR.

v. To manage and view the camera recording remotely on smartphones far away from the camera location, you will have to connect the Ethernet router through RJ45 cables which helps to connect to the NVR system via Wi-Fi. Simply connect the cables to the router and NVR in RJ45 slots.

It should be noted that in very simple and basic IP camera installation with NVR, monitor and internet connection are not required. In the initial stage, you can use the monitor to check the live recording of camera if they are working properly. If so, you can disconnect the monitor while the camera recording is saved in the hard drive in the DVR which can be checked later when needed. If you want to manage the camera live recording remotely, you will have to connect a router to the NVR with active and reliable internet connection [1].

Recommendations

i. Urbanization problem: The fact that many correctional centres in the country have been overtaken by urbanization is a challenge that needs to be addressed. For instance, Owerri, Aba, and Porthacourt prisons are situated in the town and the real sense of it is that if you travel outside the country, you will discover that a prison is built in quite an isolated place where there are buffer zones, you cross hurdles and red zones before you gain access.

ii. Government should provide more funds to cater for rehabilitation of our prisons because the idea of setting up committee with huge amount of money is time and resources wasting. The structures on ground are such that cannot enable the security officers face any attacker.

iii. There should be obstacles before you get to the prisons, look at Jos correctional centre, there are DSS there, there is a police station, there is an area command, there is police headquarters too, there is prison headquarters, there are barracks surrounding the place but these people were able to attack, simply because there are a lot of trespassers.

iv. That place is like a market zone, everybody is passing and you do not know who is coming from anywhere, the prison is not supposed to be in a place like that. If you are coming, the first gate should stop you and after that if you are an attacker, you will be confronted from there and they won't have to come near the prison wall," the retired official said.

v. There must be conscious efforts to create at least areas like a buffer zone that when you cross over there, you will be killed.

vi. The issue of poor prison facilities, inadequate security features such as CCTV, motion sensors, and high electric fences should be addressed urgently.

vii. The government must control overcrowding to be able to properly secure the prisons.

viii. The government should embark on a prison audit to identify people who have stayed for more than a year in the prison, to give their cases urgent attention.

ix. The use of latest and reliable technologies should be employed by the government to stop these incessant attacks on our correctional centres.

REFERENCES

[1]Travis, L.F., Latessa, E.J. and Oldendick, R.W. (1989). The utilization of technology in correctional institutions. *Federal Probation*, 53, 35-40. U.S Department of Justice. (1995) Technology Issues in Corrections Agencies: Results of a 1995

[2]Survey. Longmont, CO: National Institute of Corrections.

[3]Atkinson, D.J., Pietrasiewicz, V.J., and Junker, K.E. (1999). *Video Surveillance Equipment Selection and Application Guide*. Washington, DC: US Department of Justice.

[4]Nicholson, N., and Vigil, J.T. (2000). Using video in a correctional environment. *Corrections Today*, 62, 150-151.

[5]Intersec. (1996). Securing the modern prison. *INTERSEC: The Journal of International Security*, 6, 121-124.

[6]Bradshaw, S. (2002). Anti-Bullying Strategy Survey for HMYOI Glen Parva. Internal Document.

[7]Newburn, T., and Hayman, S. (2002). Policing, Surveillance and Social Control. Devon, United Kingdom: Willan Publishing.

[8]Gill, M., and Spriggs, A. (2005). *Assessing the Impact of CCTV. Home Office Research Study 292.* London: Home Office Research, Development and Statistics Directorate.

[9]Gill and Spriggs, op cit.; Phillips, C. (1999). A review of CCTV evaluations: Crime reduction effects and attitudes towards its use. In K. Painter and N. Tilley (Eds.). *Surveillance of Public Space: CCTV, Street Lighting and Crime Prevention.* New York: Criminal Justice Press; Welsh, B. and

[10] Farrington, D. (2002). *Crime Prevention Effects of Closed Circuit Television: A Systematic Review. Home Office Research Study 252*. London: Home Office Research, Development and Statistics Directorate.

[11]Clarke, R.V. (1997). Introduction. In R.V. Clarke (Ed.). *Situational Crime Prevention: Successful Case Studies (2nd ed.).* Albany NY, Harrow and Heston; Clarke, R.V. and Felson, M. (1993). Introduction: Criminology, routine activity, and rational choice. In R,V. Clarke and M. Felson (Eds.). *Routine Activity and Rational Choice.* London: Transaction Publishers.

[12]https://www.securitycameraking .com/hd-security-dvr-336-ctg

[13]https://www.securitycameraking.com/securityinfo/cctv-installation-and-wiring-options/

[14]https://www.premiumtimesng.com/news/headlines/499264-analysis-why-jailbreaks-have-become-commonplace-in-nigeria.html

[15]https://www.aljazeera.com/news/2021/12/10/jailbreak-epidemic-hits-nigeria-overcrowded-prisons

[16]https://www.bloomberg.com/news/articles/2022-07-06/jihadis-attack-jail-in-nigeria-s-capital-600-inmates-escape

[17]https://www.ojp.gov/pdffiles1/nij/225764.pdf

[18]https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.988.2267&rep=rep1&type=pdf

[19]Using Technology to Make Prisons and Jails Safer

[20]https://www.electricaltechnology/wp-content/uploads/2019/PoE-IP-CCTV-camera-installatio