An Analysis of Electronic Supervision as an Alternative to Imprisonment
(In Islamic Penal Code of Iran and International Documents)

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Abstract Electronic Supervision serves as a sanction for implementation of alternatives to imprisonment, i.e. it is imposed on a person who is not subject to prison punishment. Home detention along with electronic supervision is considered as an independent legitimate form of punishment. Also it may be ruled by the court in case of a person whose punishment is suspended, for instance, for one or two years, to be under electronic monitoring in the first months. Supervision, in this case, is not the principal penalty, rather it is an accessory punishment depending upon intensive supervision suspension.² A transmitter device worn by the offender around the neck or wrist sends signals to the supervision department.³ Therefore, the offender has the right to go to the office or participate in certain activities only, otherwise he will be under home detention and his exit and entry will be completely monitored.⁴ This paper intends to review the discussions on electronic supervision in international documents and Islamic Penal Code of Iran.

Keywords: Electronic supervision, alternatives to imprisonment, correction and rehabilitation, controlling dangerous state

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² Canadian Association of Provincial Court Judges-Law, p.3
³ Criminology, p. 530
⁴ Bonta, Jame, Suzanne Wallace et Jennifer Rooney; La Surveillance Electronique au Canada, p.3
Introduction

The need for considering penalty for the offenders is inevitable. Unlike the extremist New Social Defense School that believed in nullification of punishment and penal terms, the necessity of enforcement of penalties to protect the principles and lives in the society is unquestionable. Although the offender must pay the penalty for the offence, we must not forget that the punishment is enforced against a human being, who possesses reverence and value that even the regional and international documents have stressed on the need for observing their rights and respecting them.5

Today, imprisonment is enforced as one of the most important penalties in the majority of the world countries. Prison, as an institution that has confined offenders, is under the keen eyes of the penalty experts and criminologists. There is no doubt that prison has failed to play a decisive role in correction of the prisoners, because prison has more than alleviating the ethical, social, psychological and economic problems has deteriorated these complications.6

Also, it must not be forgotten that the ever-increasing prison population will reduce the capacity of prison system and the officials will be unable to plan for rehabilitation programs and bringing prisoners back to the society. It is in the prison that the accidental offenders living with the professional criminals learn about techniques of crime commitment instead of correction and rehabilitation.

If we add such problems as drug abuse, AIDS, hepatitis, …, to the prison complication, we will have a sorrowful picture of the jail and inmates. This is why some criminologists believe that prison is crisis stricken and its legitimacy is under question.

Perhaps it is because of this fact that the New Criminology movement that sought reformation of the penalties, has introduced the Theory of Alternatives to Imprisonment. Findings of the recent decades have made many penal systems in the world consider various alternatives to imprisonment so that along with the traditional alternatives such as conditional release, probation, and cash payment of fines, new alternatives such as postponement of proceedings, mediation, community service, correctional training facilities, daily fines and electronic supervision have been introduced.7 However, it should be noted that the alternatives have their special problems. The alternatives to imprisonment must have logical and appropriate structure to let the court enforce them in full trust and assurance over their effectiveness. To meet these goals, the law on each alternative should be well prepared and formulated by relying upon the experiences of other countries and considering the national culture as well as ongoing conditions in each country in order to be successful in reducing the prison population.8

The author of this paper intends to clarify release under electronic supervision as a substitute to intermediate sanctions or alternatives to imprisonment.

Part One: Concept of Electronic Supervision and Its Applications

Chapter One: The Concept of Electronic Supervision

Electronic supervision means monitoring, controlling and surveillance by electronic devices. Electronic supervision is being widely used in controlling

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6 For more info, ref. Alternatives to Imprisonment or Intermediate Sanctions, Dr. Mohammad Ashuri, Tehran, Nashr-e Gerayesh, 2003, p. 401
7 Ref. Reflection of a Thought, Secretariat of the Headquarters for Policymaking and Planning on Reduction of Imprisonment, Tehran, 2007, p. 15
human resources in the factories and offices, and in social monitoring such as traffic control, public gatherings, or in physical protection of places and installations. During the past two decades, electronic supervision has been also used in fighting crime and controlling criminals, so that it is often referred to as an outstanding penal invention and innovation in late 80s. Ever since its invention and application for correction of offenders and reducing prison costs, electronic supervision has turned into a large industry and thousands of offenders are supervised this way every day.9

Chapter Two: Application of Electronic Supervision on Controlling Offenders

There are various applications for the electronic supervision programs, but we will suffice to mention three major ones as the following:

a- Controlling offenders with home detention sentencing
b- Controlling released convicted offenders by intensive supervision suspension
c- Controlling persons awaiting trial

We will hereunder provide brief explanation on each area.

a- Controlling offenders with home detention sentencing

Dutch penologist Tulkens divides punishments into five generations: capital punishment, corporal punishment, penal labor, and labor on prison ships are among the first generation punishments. Degradation of freedom belongs to the second generation. Suspension of sentence, probation and cash fine, that are specifically alternatives to for short-term imprisonment, constitute the third generation. The fourth generation attributes to the social punishment, specially social services, mediation between the victims and offenders, penal fine payment and similar punishments. Limitation of freedom and electronic monitoring can form the fifth generation (Mathias & Francis, 1995).

The negative effects of imprisonment and the increasing population of the prisoners in recent decades have made the planners and and decision makers plan and enforce home detention punishments instead of imprisonment. This type of detention reduces the negative aftereffects of prison on the convicted person and his family, and secondly, reduces overpopulation of prisons very to a great deal. It is clear that home detention is not applicable to all prisoners. It can be enforced on offenders convicted of short-term detention, who are among the non-dangerous offenders. In this penal system, the convicted person passes his conviction term at home on his cost. Along with his detention, the offender lives with his family and carries out social activities. In some cases, the offender under home detention is allowed to leave his house for specific, predetermined purposes and then return home.

The success of home detention requires constant control and supervision. The convicted person will make unauthorized exit and will carry out illegal activities if he makes sure about lack of supervision and control. The supervision is usually monitored by supervision officers.

According to the supervision systems in various countries, the authority of supervision may be delegated to the prison officers, social workers or private supervision institutes. At present, electronic devices are used along with supervision officers for controlling the convicted offenders. In some countries, supervision officers have been completely replaced with electronic devices. In this paper, we will introduce some electronic devices for controlling the convicted offenders under home detention.

b- Controlling released convicted offenders by intensive supervision suspension

In this form of supervision suspension, the convicted person will be subject to supervision and control outside prison environment for a specific time instead

9 Ashuri, Mohammad, Alternatives to Imprisonment or Intermediate Sanctions, UN Office for Drug Control (UNODC), Vol. 1, Tehran, Nashr-e Gerayesh, p. 402
of imprisonment. The supreme judge at the court usually enforces positive or negative tasks on the convicted offender with the aim of preventing recidivism or correction of the offender, treatment of the offender or redemption payment to the victims (Stephanie & Levasseur, 1995, p. 837).

The effectiveness of suspension of sentence and realizing its corrective goals require enforcement of control and supervision on the offender. Until the past couple of decades, the supervision used to be enforced by probation officers in traditional way. This is still observed in many countries. However, because of the largeness of the offenders, dispersion of offenders, limited hours of service of the officers, and rising costs human factor supervision has not been successful. This is why during the recent decades in some countries, the experts have shifted to using electronic supervision devices.

c- Controlling persons awaiting trial

With respect to the harmful effects of temporary detention on the rights and freedoms of the individuals, today, temporary detention order has faced diversified restrictions. Many international conventions and treaties and domestic laws of countries resort to temporary detention order in certain cases only and see excessive use of this order as contrary to the principle of acquittance and incompatible with the rights of the accused and the convicted. Therefore, law has created various writs of attachment to enable the supreme judge enforce a deserving order. One of the writs of attachment as an alternative to temporary detention can be electronic supervision order that is indeed an advanced type of judiciary supervision (Stephanie & Levasseur).

In this type of writ of attachment the convicted person is not imprisoned and instead control and supervision are enforced on his behavior and actions for relative assurance on his probable escape, lack of collusion, or causing danger to the victims and witnesses or informed persons, and the like.

**Part Two: Electronic Supervision Technologies**

**Chapter one: Fixed Control and Supervision Technology**

a- Programmed contact systems (active supervision)

The electronic device for tracking the offender is one of the abundantly used electronic supervision devices. They do not function equally however. There is indeed a range of diversified technologies in them. The programmed contact systems use various methods for contacting the offender and locating his position at house or office or in between the two. This technology may be used in the case of offenders under home detention or on the offenders outside their houses with occasional references to their homes (for instance, during sleeping hours), but they have the right for conducting personal activities.

Programmed contact systems are automated calling systems. The backbone of these systems is a central computer that either receives telephone calls from or makes calls to the offender in one or more locations. The calls may be made either on a scheduled or random timetable, or both scheduled and random calls can be made. Computer-generated calling systems are those in which the central computer makes telephone calls to the offender’s number(s) at scheduled or random times. The offender is expected to answer the calls according to a predetermined record of where he or she is to be at given times. Usually, these calls come to the offender’s home to ascertain that he or she is at home when required. Random calls can be generated at any time of the day or night to ensure the offender is at home when expected to be and not at home when expected to be at work, treatment, or other obligations. Several systems have the ability to generate calls to other locations or multiple telephone numbers — for example, to ensure the offender’s presence at work (Renzema, 1992).

Call-in systems require the offender to call the central computer either at scheduled times or when he or she is signaled to call based on random notification generated by a computer during designated curfew hours. Signals may be received through pagers or similar devices worn by the offender. When the offender calls in, the computer verifies the telephone number from which he or she is calling and compares
it to the approved number(s) from which the offender may call at that time or stores it for subsequent review and location determination (Conway, 2001).

The most reliable voice verification systems have calls generated to the offender from a central computer system. This keeps the offenders from defeating the system by using call forwarding and conference calling features that allow them to call from virtually anywhere, even though it appears they are calling from their scheduled location. For systems that require the offender to call in at random or scheduled times, agencies should mandate a procedure whereby the offender is immediately called back from the central computer (L. Connelly, 2001).

All of the automated calling systems include some type of technology to verify that the person responding to the computer is really the offender.

Three basic types of verification technology are used (Conway, 2001).

Voice verification is the first technology. Since individuals have unique voice prints just as they have distinctive fingerprints. A voice template is recorded during system enrollment and used for a computerized comparison with future calls.

The second technology is video verification. Using a camera installed in the offender’s home, a picture is transmitted to the central computer and compared with a photograph on file (Conway, 2001).

The third technology is device verification. Some systems require that the offender wear a tamper-resistant device, usually on his or her wrist or ankle. When calling in or responding to calls from the central computer, the offender is required to activate the device which then transmits a unique code for that offender over the telephone. The code is then verified by the computer.

b- Continuous signaling devices (passive supervision)

Continuously signaling devices require the offender to wear a battery-powered transmitting device that emits a radio frequency signal two or more times a minute. These are placed on the offender’s wrist or ankle with a tamper-resistant strap, and they must be worn all the time.

All manufacturers have incorporated tamper resistant and alert features in their transmitters. The technology for this varies, and many of the transmitters have more than one technology to detect tampering. Some tamper resistant features work better than others. The importance of testing equipment thoroughly to determine its fallibility cannot be overemphasized. The risk level of the offenders in the program should determine the type of equipment used. Further, frequent and close visual observation of the strap will detect even the most minor efforts to tamper and will avert future tampering efforts. This is an imperative procedure (L. Connelly, 2001).

Most transmitters in use today are quite small and light, ranging from less than one ounce to about four ounces. Depending on the brand, transmitter batteries can last from one to two years, and all current models indicate when battery power is getting low (Conway, 2001).

A receiver is installed in the offender’s home and is attached to the telephone. The receiver detects the transmitter’s signals and conveys a message via telephone report to a central computer when it either stops receiving the radio frequency or the signal resumes again. Receivers can detect transmitter signals from a range of up to, and in some cases exceeding, 35m when installed in a typical home environment. The range on some systems can be programmed for individual offenders from as little as 10m to more than 150m, depending on the type of equipment used. The range for any setting can vary significantly due to a variety of factors including location and building characteristics.

Receivers also have tamper-resistant features to avoid offenders moving or disabling them. They have battery back-up systems that can maintain operations, from eight to 48 hours — depending on the type of unit — if electrical service is interrupted.

Most units can also store data if power is depleted so that information can be retrieved from the unit later. Most agencies require the offender to have telephone...
service to use a continuously signaling monitoring system so the agency can receive violation notifications on a “real time” basis. Some may use the systems without telephone line access and require the offender to bring the receiver in each time they report so the monitoring data it stores can be downloaded and processed to determine whether or not the offender remained compliant since the last time he or she reported. There are several telephone services that may interfere with the operation of the system. Call forwarding and call waiting should always be disabled to avert offender manipulation of the system. Depending on the particular receiver in use, cordless phones, cellular phones, answering machines, and call blocking may need to be restricted (Conway, 2001).

The central computer is programmed with the offender’s schedule, and this is compared to messages transmitted from the receiver in the offender’s home. For example, if an offender is authorized to leave for work at 8:00 a.m. and return at 17:30 p.m., the receiver would transmit the information that the signal was not detected when the offender leaves its range at 8:00 a.m. and would again transmit a message when the signal is detected as the offender returns at 17:30 p.m. If the signal is lost during a curfew period or resumes at a time when the offender is prohibited from being in the home, the computer generates a report that alerts the monitoring staff of the discrepancy. The monitoring staff then follow predetermined procedures to ascertain the reason for the alert.

The system is widely used for supervision of the convicted offenders under home detention. Conditional release scheduled to be home at certain times of night, black-out hours, can be under supervision by this system. Individuals under judicial supervision as well as offenders under supervision suspension are among the major users of these systems.

c- Group monitoring units

Sometimes supervision agencies will want to supervise several offenders in the same location using electronic technology. This might be appropriate for tasks such as verifying attendance of multiple offenders in a day-reporting program or monitoring offenders confined in a residential group setting. Each offender in a group setting wears a transmitter, and all transmitters are monitored by one group monitoring unit, much like a field monitoring device. The group monitoring unit reports an exception when an offender’s transmitter signal is not picked up (i.e., the offender has left the area) or attempts to tamper with the transmitter. Additional information is received and stored by the group monitoring unit and can be downloaded to a computer to generate reports at a later time.

Chapter Two: Movement Control Technology

a- Field monitoring devices

Field monitoring devices or “drive by” units are another type of continuous signaling technology. Probation or parole officers or other authorities use a portable device that can be hand held or used in a vehicle with a roof-mounted antenna. When within 60 to 2400 meter of an offender’s ankle or wrist transmitter — and sometimes more than 300 meters depending on the location and the use of special antennas — the portable device can detect the radio signals of the transmitter. It can also determine the tamper status and battery status of the transmitter. Officers can conduct field surveillance of offenders even when they are away from the receiver units in their homes. The device is especially useful to verify the offender’s attendance at school, work at construction sites, and presence at other public or private locations. Further, the field monitoring device can alert surveillance personnel that an offender is in an unauthorized location. One probation officer found one of his clients, who was supposed to be at work, on a golf course the officer happened to drive by.

Most field monitoring devices display the transmitter number of the offender detected, although some models have only an audible verification of a transmitter, and some display the name of the offender. Field monitoring devices operate with an internal battery. Most batteries are rechargeable by plugging the unit into a regular power outlet. Some
include adapters to run from a car battery. Internal battery life can range from about four to twelve hours, depending on the unit, and most batteries also can be recharged in the vehicle. Most units can store messages about the transmitters it detects for future downloading and reporting.

The field monitoring devices are especially useful in cases of violations or suspected violations to confirm an offender’s presence or absence at a location (Conway, 2001; NLECTC, 1999). They also are used in sweep operations.

Some agencies use them in their offices to alert them when offenders come in (for instance, to report or to pay fees).

b- Location tracking systems

Some of the most recent technological developments provide the ability to track an offender’s movements and location in real time. Current location tracking systems — referred to as global positioning systems, or GPS — rely on 24 satellites that orbit the earth thousands of miles away. These satellites were originally designed by the U.S. military for navigation, mapping, and weapons delivery purposes. However, they are now used in a variety of nonmilitary applications including personal car and boat navigation and electronic supervision of offenders (Rosica, 2000).

The hardware for this system consists of a transmitter worn by the offender, a portable tracking device that the offender must carry or be near at all times, and a charging unit for the portable tracking device that stays in the offender’s home (Ibid).

The battery-operated transmitter is small (about the size of a watch or small pager), light weight (about 60 to 120 gr.), and is usually worn on the offender’s ankle. As with other types of electronic supervision devices, the transmitter has built-in tamper-resistant features to avert the offender from removing the transmitter and to send an alert if he does interfere with it. Batteries can last from one to three years before replacement. Like the continuous signaling devices, the transmitter emits a radio signal two or more times a minute that is received by the portable tracking device. In an open unobstructed area, the transmitter can send signals to the portable tracking device as much as 30 to 45 meters away. However, the range can be programmed for some models ranging from 45 to 350 meters (Conway, 2001).

If the portable tracking device no longer receives a signal from the transmitter, it sends an alert to notify the monitoring center. The portable tracking device must be within range of the offender’s transmitter at all times to track the offender. Some agencies allow the offender to go out of range of the transmitter while at work, depending on their work environment, responsibilities, and the reasonable assurance of their continuous presence at their work site during working hours. Portable tracking devices are small boxes that weigh approximately 60 to 120 gr. The offender carries the device by hand, with a shoulder strap, or worn around the waist. The portable tracking device contains several types of technology: a receiver that detects signals from the transmitter, the GPS signal receiver, a computer, and cellular telephone circuits (Renzema, 2000).

Using a GPS system, criminal justice professionals can determine inclusion and exclusion zones for each offender. Exclusion zones are areas the offender is not permitted to go, such as parks and schools for a pedophile, a former partner’s home or place of employment for a domestic batterer, or bars for an alcoholic. Depending on the brand of equipment used, exclusion zones can range from a 90 to 60 radius, and from 20 to an unlimited number of exclusion zones can be selected for each offender. Inclusion zones are areas the offender is expected to be at various times, such as his workplace during the day and home at night. Depending on the equipment used, the number of inclusion zones can range from 100 to an unlimited number, and the size of inclusion zones is unlimited (Conway, 2001).

The inclusion and exclusion zones are entered by using mapping software that usually requires only entering the address or pointing to the location on a computer map. The computer can be programmed to send an alert anytime the offender enters an exclusion zone or leaves an inclusion zone at the wrong time. If an alert registers, it is then possible to follow the offender’s movements to determine whether he is
clearly violating his restrictions or has accidentally gone in the wrong zone temporarily. Real time tracking can allow law enforcement to be dispatched to the offender’s exact location. The portable tracking device carried by the offender is also battery-powered and must be recharged regularly — currently, usually every 16 to 24 hours. The charging unit for the portable tracking device is placed in the offender’s home and uses household electricity. It takes about five hours for the battery to fully recharge (Conway, 2001). Location tracking systems are usually most appropriate for higher-risk offenders. Sex offenders and domestic violence offenders have been placed on these systems (Renzema 2000).

Conclusion

Modern electronic technology has a special position in everyday life of the human being. Technology on one hand, can be an instrument in the hands of the offenders to facilitate commission of an offence, and on the other hand, help police and penal justice systems in crime detection, identifying the offenders, and gathering data and evidence against the offenders. Using technology has not only found wide scale application in crime prevention, but also its significance in controlling the prisoners and supervising their actions and behaviors as an alternative to imprisonment is proven. Although these technologies, particularly the electronic supervision, is yet to be common practice in Iran, it seems that due to the rising costs of prisons, ever-increasing number of prisoners, new bills on Islamic Penal Code and Criminal Procedure Code, electronic supervision devices will be used within the next years in controlling and punishment of certain offenders. However, it is not the proper remedy for all diseases. The most logical ways before the import of these technologies and implementation of any program are conducting expert-level studies on cultural, religious and economic areas and using valuable experiences of other countries – France in particular – in order to find the most appropriate system for enforcement.10 Raising cultural awareness and more familiarity of the judges at the prosecutor’s offices and the courts with the alternatives to imprisonment can influence its success. But it must never be considered as the only solution to prison overcrowding. Using alternative punishment, however, can be influential in reducing the prison overcrowding if it is used in parallel with other factors that are influential in reducing prison population.11 It is in this case that the


[1] Canadian Association of Provincial Court Judges-Law, p.3
[2] Criminology, p. 530
[3] Bonta, Jame, Suzzane Wallace et Jennifer Rooney; La Surveillance Electronique au Canada, p.3