

### **Online Crime Reporting System**

Submitted in partial fulfillment of the requirements for the award of the degree of

#### MASTER OF COMPUTER APPLICATION

Submitted by

PREETHAM HD
USN NUMBER: 18MCAL0016

Under the Supervision of

**Asst. Prof: KULDEEP VAYADANDE** 

# DEPARTMENT OF MASTER OF COMPUTER APPLICATION

JAIN DEEMED TO BE

UNIVERSITY JAYANAGAR -

560068 (INDIA) DEC 2020

#### **Abstract**

The purpose of Online Crime Reporting System is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The victims can file the case through the website under various sections and the user can send photo evidence if any online. With the rapid urbanization and development of big cities and towns, the graph of crimes is rising rapidly. This phenomenal rise in offences and crime in cities is a matter of great concern. There are robberies, murders, smuggling, rapes and crimes which one can't think of. Crime reporting solutions used today are trivial. Crime reports are still stored in paper records and evidences such as media files are stored in CD's or DVD's. When the case progresses, the paper records and evidences tend to increase and makes it difficult to manage. Also, if a previous case is reopened after a long time, there is a hard time finding all the records regarding the case. Many of the crimes that happen in India are not reported to the police. There can be several reasons why a victim do not report a crime like he don't want to get involved in a police case or he don't want to disclose his identity. Despite that, for every crime only the police is held responsible so maintain the anonymity is the main aim of this project. According to a report by Times of India, from the global ransomware attacks that hit hundreds of systems to phishing and scanning rackets, at least one cybercrime was reported every 10 minutes in India in the first six months of 2017. That's higher than a crime every 12 minutes in 2016.

According to the Indian Computer Emergency Response Team (CERT-In), 27,482 cases of cybercrime were reported from January to June. With more Indians going online, cyber experts said putting in place critical infrastructure to predict and prevent cybercrimes was crucial. There is a need of dedicated cyber cell to address cyber crimes reported by the people. In our current system, there is no way to report a cyber crime online. so we are adding a cyber crime reporting feature to help the people. And it has the feature like showing the status of the their compliant and also police can add the list of wanted or dangerous criminal photos and information that will help the people to identify and protect them self from criminals and also police can send an alert about criminals.

# Content

| Chapter 1            |          |
|----------------------|----------|
| Introduction         | 04       |
| Chapter 2            |          |
| 2.1 Proposed system  |          |
| 2.2 Existing system  | 06       |
| Chapter 3            |          |
| System architecture  |          |
| 3.1 DFD diagram      | 07       |
| 3.2 ER diagram       | 08       |
| 3.3 Use Case diagram | 09       |
| Chapter 4            |          |
| Code and Screenshots | 10 to 21 |
| Chapter 5            |          |
| Conclusion           | 22       |
| Future enhancement   | 22       |
| Bibliography         | 23       |

#### INTRODUCTION

The "Online Crime Reporting System" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for helping out the people who are scared to visit police station.

The application is reduced as much as possible to avoid errors, No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. Online Crime Reporting System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of Criminal, Crime, Public, Solutions, Complaint and it will help the user to register the complaints without visiting the police station and get updated about their complaints online, people who are scared to reveal their identity can send the anonymous tip to police and alert them with proofs like files, photos, audio etc

Every user is having his own dashboard and account so he can track his complaints status and even every police is having is own account according to his level on post and he will manage the complaints online.

#### PROPOSED SYSTEM

The victims can file the FIR through the website under various sections. The user can send photo evidence if any online. The police will have a criminal database through which they can access the records anytime. In this system, user's information will be kept confidential and only users complain will be forwarded to the police station. Users can also complain the cyber crime and civil crime also and he can also attach the photos and files and videos,

#### **USER MODULE:**

User is provide with the user dashboard and also he can file the compliant with proof also, and he can check for the status of their compliant, and anyone can register the cyber crime compliant also and the user will get the alerts from the police and every user is having is own profile and id, and he have to register before going to register a compliant.

There is no need to visit police station for registering compliant, It help them the save their time and register a compliant on time and this helps for controlling of crimes, data provided by the user and any information will

Be kept safe there is no data loss every information is stored in data base and create a backup of their information ,so there is no data loss and which is the efficient way

#### **POLICE MODULE:**

Police have to login first then they can see the compliant that are filed by the users and he is having is own dash board and every police man has there own levels and grades so every one is provided with different id and profile he can log into it and check the compliant and register it and update the status of compliant.

Police can send the alert to the people about the crimes and criminals so the people aware of those people and protect them self. police will receive the cyber crime compliant also with the feedback from the user so people can easily contact the police without any hesitation and with trust and hope.

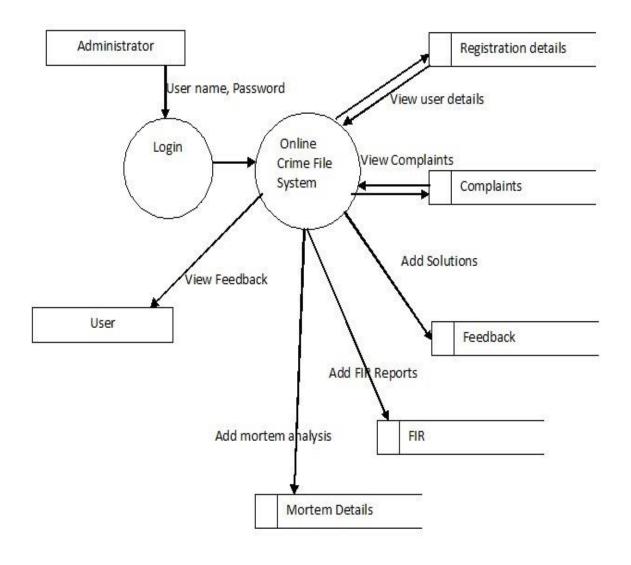
#### **EXISTING SYSTEM**

Existing System of Online crime registration system

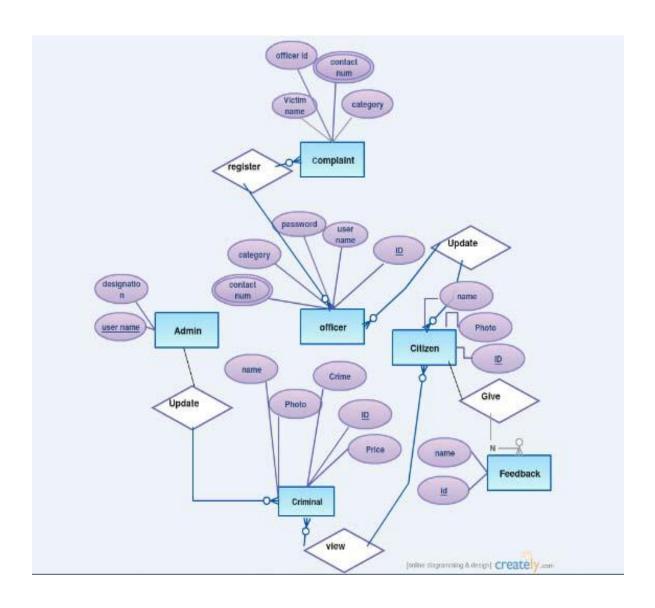
- Still records are kept in files.
- Chances of losing information is high.
- Some people may be scared to visit police station so many of the crimes will not be registered.
- Corruption in police station and some may refuse to register the complaint.
- Crime reporting solutions used today are trivial. Crime reports are still stored in paper records and evidences such as media files are stored in CD's or DVD's.
- When the case progresses, the paper records and evidences tend to increase and makes it difficult to manage. Also, if a previous case is reopened after a long time, there is a hard time finding all the records regarding the case.

#### SYSTEM ARCHITECTURE OR FLOW-CHARTS

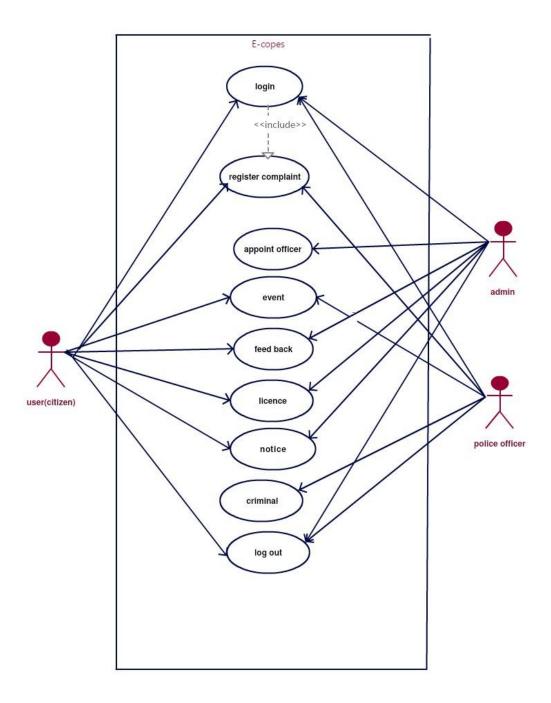
### **DFD Diagram: -**



### ER-Diagram: -



### Use Case :-

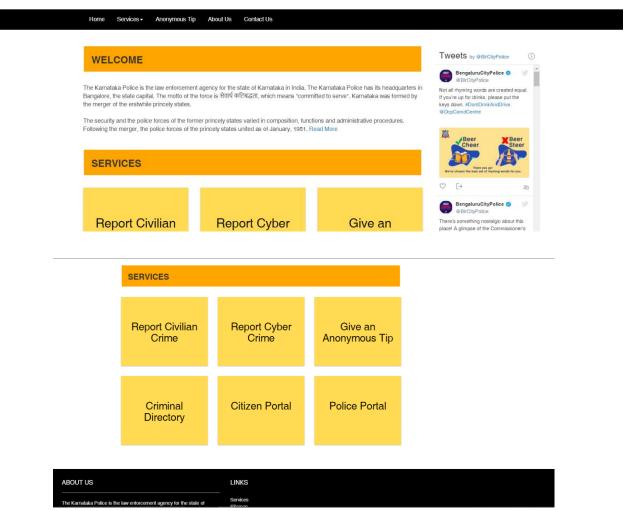


### Code and Screenshots

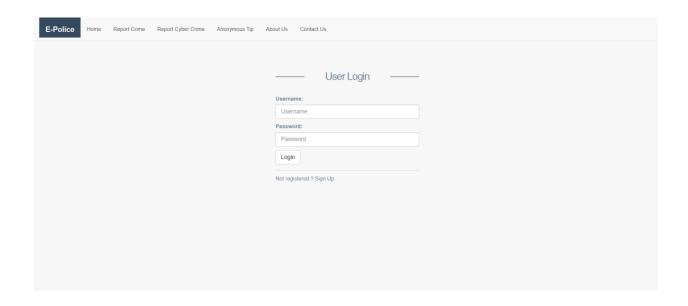
### 1.Index



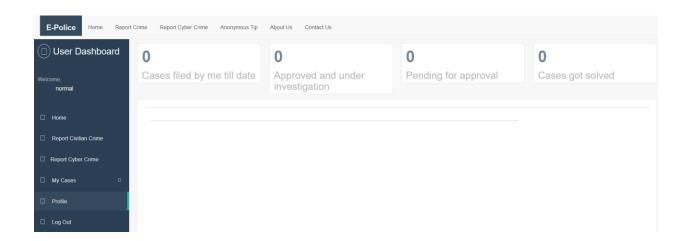




## 2. User Login:



### 3. User dashboard



# 4. Anonymous Tip:

|               | Anonymous | s Tip ——— |
|---------------|-----------|-----------|
| Title:        |           |           |
| Description:  | :         |           |
|               |           |           |
|               |           |           |
|               |           |           |
|               |           |           |
| Incident time | e:        |           |
| January       |           | ~         |
| 1             |           | ~         |
| 2020          |           | ~         |
| Upload evid   | ence:     |           |
| Stay in touc  | h: 🗆      |           |
| Submit Tip    | р         |           |

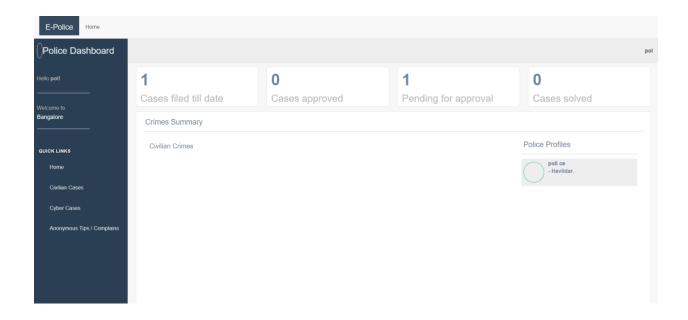
### 5. Civilian Crime

| File FIR               |   |
|------------------------|---|
| FIIEFII                |   |
| Title:                 |   |
|                        |   |
| Case categories:       |   |
|                        | ~ |
| Description:           |   |
|                        |   |
|                        |   |
|                        |   |
|                        |   |
|                        |   |
|                        |   |
| Den from less          |   |
| Reg from loc:          |   |
|                        |   |
| Userid:                |   |
| Ward id:               |   |
|                        | ~ |
| Incident time:         |   |
| January                | ~ |
| 1                      | ~ |
| 2020                   | ~ |
| Submit                 |   |
|                        |   |
| □ Vewsetelse □ Deliese |   |
| ☐ Karnataka E-Police   |   |

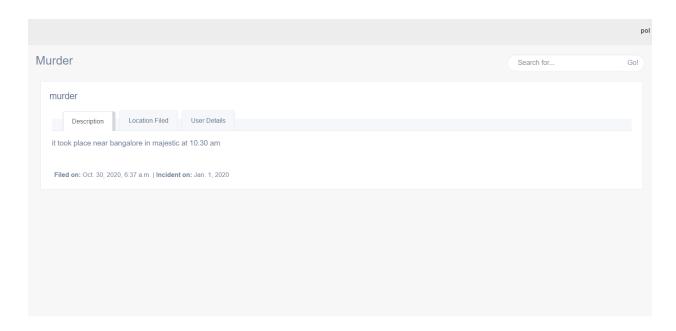
# 6. Police Login:



### 7. Police Dashboard



### 8. Compliant details



#### Model

```
From django.db import models
from django.urls import reverse
from citizen.models import Citizen
from police.models import Ward
import datetime
t = datetime.datetime.now()
t = str(t.year) + '/' + str(t.month) + '/' + str(t.day)
def evidence_upload_location(instance,filename):
    return '%s/%s/%s' % ( t , instance.case.id, filename)
class CaseCategory(models.Model):
    name = models.CharField(max_length=80, blank=False)
    class Meta:
       verbose_name_plural = 'Crime Categories'
    def __str__(self):
        return self.name
    def get_absolute_url(self):
        return reverse("cbc",kwargs={"id":self.id})
class CyberCaseCategories(models.Model):
    name = models.CharField(max_length=80, blank=False)
```

```
class Evidence(models.Model):
    case = models.ForeignKey('Case', blank = True, null = True)
    evidence = models.FileField(upload_to=evidence_upload_location)
    timestamp = models.DateTimeField(auto_now_add=True)
class Witness(models.Model):
    name=models.CharField(max_length=100, blank=False)
    adhaar_id=models.CharField(max_length=20, blank=False)
    contact=models.CharField(max_length=20, blank=False)
   case = models.ForeignKey('Case', null=True)
   def get_absolute_url(self):
        return reverse("person_detail",kwargs={"id":self.bahmashah_id})
class Case(models.Model):
   title = models.CharField(max_length=80, blank=False)
    case_categories = models.ForeignKey(CaseCategory,null=True,blank=True)
    cyber_case_categories = models.ForeignKey(CyberCaseCategories,null=True,blank=True)
   description = models.TextField()
    reg_from_loc = models.CharField(max_length=255, blank=False)
   userid = models.ForeignKey(Citizen,null=True)
   ward_id = models.ForeignKey(Ward)
    incident_time = models.DateField()
    approved=models.NullBooleanField()
    solved=models.NullBooleanField()
   timestamp = models.DateTimeField(auto_now_add=True)
    updated = models.DateTimeField(auto now=True)
```

#### View

```
from django.conf.urls import url, include
from django.contrib import admin
from comment.views import CreateComment
from comment.views import HomePage, CommentPage
from home.views import criminal_directory
from home.views import upload_evidence
from django.views.generic import TemplateView
from django.conf.urls.static import static
from django.conf import settings
from police.views import person_detail_view
urlpatterns = [
    url(r'^admin/', admin.site.urls),
    {\tt url(r'^aabout\$', TemplateView.as\_view(template\_name="about.html")),}
    \verb|url(r'^contact', TemplateView.as_view(template_name="contact.html"))|, \\
    url(r'^police/', include('police.urls')),
    {\tt url}(r'^{\tt anonymous}), {\tt include}('home.url_anonymous')),
    url(r'^citizen/', include('citizen.urls')),
    \verb|url(r'| comment/ajax/create', CreateComment, name = "create_comment")|,
    url(r'comment/', CommentPage, name = "comment"),
    url(r'^criminal_directory/', criminal_directory, name = "criminal_directory"),
    url(r'^person_detail/(?P<id>\w+)/$', person_detail_view, name='person_detail'),
    url(r'^$', HomePage, name = "HomePage")
urlpatterns += static(settings.MEDIA_URL, document_root=settings.MEDIA_ROOT)
```

```
def login_view(request):
    if str(request.user.__class__.__name__)=="Citizen":
        return redirect('/citizen/dashboard')
   form = UsersLoginForm(request.POST or None)
   if form.is_valid():
       username = form.cleaned_data.get("username")
       password = form.cleaned_data.get("password")
       user = authenticate(username=username, password=password)
       login(request, user)
        return redirect("/citizen/dashboard")
   return render(request, "citizen/login.html",{'form':form})
def dashboard(request):
    if not request.user.is_authenticated() :
        return redirect("/citizen")
   total=Case.objects.filter(userid=request.user).count()
   pending=Case.objects.filter(userid=request.user,approved=False).count()
    solved=Case.objects.filter(userid=request.user,solved=True).count()
    inprogress=Case.objects.filter(userid=request.user,approved=True,solved=False).count()
   context={'citizen':request.user,"total":total,"pending":pending,"solved":solved,"inprogress":inprogr
    return render(request, 'citizen/dashboard.html',context)
```

```
def citizen_logout(request):
    logout(request)
    return redirect("/")
def create_case(request):
    if not request.user.is_authenticated():
        return redirect("/citizen")
    form = case_form(request.POST or None)
    if form.is_valid():
        instance=form.save(commit=False)
        instance.save()
        return redirect("/citizen/dashboard")
    return render(request, "citizen/case.html", {"form": form})
def cbcview(request, sel=None):
    if not request.user.is_authenticated():
        return redirect("/citizen")
    my_object = get_object_or_404(Citizen, pk=request.user.id)
    if int(sel)==0:
        cases_qset=Case.objects.filter(userid=my_object)
    elif int(sel)==1:
        cases_qset=Case.objects.filter(userid=my_object,cyber_case_categories=None)
    elif int(sel)==2:
        cases_qset=Case.objects.filter(userid=my_object,case_categories=None)
    elif int(sel)==3:
        cases_qset=Case.objects.filter(userid=my_object,solved=True)
    elif int(sel)==4:
```

```
def create_cyber_case(request):
    if not request.user.is_authenticated():
        return redirect("/citizen")
    form=cyber_case_form(request.POST or None)
    if form.is_valid():
        instance=form.save(commit=False)
        instance.save()
        return redirect("/citizen/dashboard")
    return render(request, "citizen/case.html",{"form" : form, 'cyber':True})
def register_view(request):
    form = UsersRegisterForm(request.POST or None)
    print(form)
    if form.is_valid():
       print('form validated successfully')
        form.save()
       username = form.cleaned_data.get("username")
       password = form.cleaned_data.get("password")
       user = User.objects.create_user(username=username, password=password)
       user.save()
        return redirect("/citizen/dashboard")
    return render(request, "citizen/register.html",{"form" : form,})
```

#### **Templates**

```
{% extends "app/base_site.html" %}
{% block title %} Dashboard 1 {% endblock title %}
{% block stylesheets %}
 {{ block.super }}
{% endblock stylesheets %}
{% block content %}
  <div class="right_col" role="main">
    <div class="row tile_count">
     <div class="col-md-2 col-sm-4 col-xs-6 tile stats count">
        <span class="count_top"><i class="fa fa-user"></i> Total Users</span>
       <div class="count">2500</div>
       <span class="count_bottom"><i class="green">4% </i> From last Week</span>
     <div class="col-md-2 col-sm-4 col-xs-6 tile_stats_count">
       <span class="count_top"><i class="fa fa-clock-o"></i> Average Time</span>
       <div class="count">123.50</div>
        <span class="count_bottom"><i class="green"><i class="fa fa-sort-asc"></i>>3% </i> From last Week</span>
      </div>
      <div class="col-md-2 col-sm-4 col-xs-6 tile_stats_count">
       <span class="count_top"><i class="fa fa-user"></i> Total Males</span>
       <div class="count green">2,500</div>
       <span class="count bottom"><i class="green"><i class="fa fa-sort-asc"></i>>34% </i> From last Week
      <div class="col-md-2 col-sm-4 col-xs-6 tile_stats_count">
       <span class="count_top"><i class="fa fa-user"></i> Total Females</span>
       <div class="count">4,567</div>
       <span class="count_bottom"><i class="red"><i class="fa fa-sort-desc"></i>12% </i> From last Week</span>
      <div class="col-md-2 col-sm-4 col-xs-6 tile_stats_count">
        <span class="count_top"><i class="fa fa-user"></i> Total Collections</span>
        <div class="count">2,315</div>
       <span class="count_bottom"><i class="green"><i class="fa fa-sort-asc"></i>>34% </i> From last Week</span>
      </div>
      <div class="col-md-2 col-sm-4 col-xs-6 tile_stats_count">
       <span class="count_top"><i class="fa fa-user"></i> Total Connections</span>
        <div class="count">7,325</div>
        <span class="count_bottom"><i class="green"><i class="fa fa-sort-asc"></i>>34% </i> From last Week</span>
     </div>
    </div>
    <div class="row">
```

```
| O second and control sections | O second control section | O second contr
```

### **Conclusion and Future Enhancement**

#### **Conclusion**

The Online Crime Reporting System is a web application system which is too much helpful for all the common people, government organization and different societies. This is based on a very simple and non-complex approach. This has been created as a safety measure for all section of people and societies. Anything which is against the law or anyone who is violating the law will now have some fear as now filing an FIR is much easier than it was before.

A completely integrated and compact system is developed that can be used by the common man as well as the police and this system would be like a win-win situation for both of them. This project will be widely used in the future by the police department, the common man, security agencies and even hospitals(for accident and assault victims). The greatest strength of this project is that it offers new features as well as retaining the original characteristics of the existing systems(for example: Criminal Database).

#### **Future Enhancement**

Government can implement this project with better GPS tracking system and also increase the database record for better results with more secure login and data storing features.

### **Bibliography**

- [1] Addington, L. A. (2006). Using national incident-based reporting system murder data to evaluate clearance predictors: A research note. *Homicide Studies*, 10(2), 140-152
- [2] Ahluwalia, G. (2004). U.S. Patent No. 6,728,685. Washington, DC: U.S. Patent and Trademark Office.
- [3] Allison, S. F., Schuck, A. M., & Lersch, K. M. (2005). Exploring the crime of identity theft: Prevalence, clearance rates, and victim/offender characteristics. *Journal of Criminal Justice*, 33(1), 19-29.
- [4] Angeles, P. (2015). U.S. Patent No. 9,058,416. Washington, DC: U.S. Patent and Trademark Office.
- [5] Alrwisan, A., Ross, J., & Williams, D. (2011). Medication incidents reported to an online incident reporting system. *European journal of clinical pharmacology*, 67(5), 527-532
- [6] Basch, E., Artz, D., Dulko, D., Scher, K., Sabbatini, P., Hensley, M., ... & Schrag, D. (2005). Patient online self-reporting of toxicity symptoms during chemotherapy. *Journal of clinIcal oncology*, 23(15), 3552-3561
- [7] Bossler, A. M., & Burruss, G. W. (2012). The general theory of crime and computer hacking: Low self-control hackers? In *Cyber Crime: Concepts, Methodologies, Tools and Applications* (pp. 1499-1527). IGI Global.
- [8] Brahan, J. W., Lam, K. P., Chan, H., & Leung, W. (1998). AICAMS: artificial intelligence crime analysis and management system. *Knowledge-Based Systems*, 11(5-6), 355-361
- [9] Bromby, M. (2006). Security against crime: Technologies for detecting and preventing crime. *International Review of Law Computers & Technology*, 20(1-2), 1-5
- [10] Byrne, J. M., & Rebovich, D. J. (2007). The new technology of crime, law and social control. Monsey, NY: Criminal Justice Press.