Title

Forensics Support for Law and Order

Group Members

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Introduction

Only recently has Pakistan Law Enforcement garnered a specialized homicide investigation unit (2015) and the tools that they have at their disposal still leave much room for doubt and speculation. They highly discouraged specialists of the field as well as police officers from evidence planting to pin it on the most susceptible suspect at that time. As such practices (being ethically horrendous) resulted in several false convictions and encouraged evidence tampering and manipulation by corrupt personnel involved. When the system was in such a state, the courts could not rely on data provided.

Problem Statement

Even with the great efforts of Law Enforcement Agencies and the Judicial System, crime solving has innumerous delays and discrepancies due to inefficiencies such as inexperienced personnel and a lack of resources. There is need for a centralized system to automate and accelerate the crime scene investigation.

Problem Solution

What we aim to do is provide a reliable resource with total transparency and high accuracy. The crux is to find the right evidence and properly catalogue it. Scope can be expanded to include all kinds of crime data management of physical evidence (DNA sampling by checking on blood spatter, hair, saliva etc.) as well as weapons, paper, bullets, fingerprints, footprints, bullet holes, and tire tracks. Once data is recorded and analyzed, it can be used to form scenario-based speculations about crime. Over a period of time and given very large datasets, we can provide ways to predict future crime while incorporating a location mapping algorithm to show safe and dangerous zones of different cities by looking at past occurrences and people's ratings of area security.

Solution's Novelty

In Pakistan, there is a Punjab Forensic Science Agency which deals with receiving physical evidence from law enforcement agencies, on criminal and civil cases, analyzing and providing accurate results of forensic analysis in timely manner. Then finally, testify in courts of law on analytical findings for the people of Punjab.

Our application will integrate all relevant departments into one application, namely:

1. Computer Forensic
2. Crime Scene & Death Scene Investigation
3. DNA & Serology
4. Forensic Photography
5. Fire Arms & Tool Marks
6. Latent Fingerprints
7. Pathology
8. Questioned Documents

Because all evidence and its corresponding suspects will be in one place, the crime (in this case, we are focusing on homicide) will be solved more efficiently and quickly with very little chance of false positives. Additionally, this application will target all Law and Order in Pakistan, not just the Punjab province.

Timeline of Completion

10th March - 30th March: Requirements Gathering and Analysis
30th March - 6th April: System and Architecture Design
7th April - 30th April: Implementation and Testing
1st May -13th May: Quality Testing

Reference

http://pfsa.gop.pk/

Github Link

https://github.com/bawochi/Software-Construction-Semester-Project