

Today's world is experiencing a fast pace of development of new technologies, which affects many spheres of people's lives, including the criminal one. Moreover, due to new discoveries in digital analysis, investigators can access the data from smartphones, computers, and other gadgets that can be used as evidence in court. Modern surveillance technologies and video analysis become helpful for detecting suspicious activity X-rays and spectroscopy are scientific means employed in recognizing tiny chemical components of the evidence in order to better comprehend the nature of weapons or materials used in the commission of a crime without destroying the sample itself. However, the application of these techniques poses many obstacles, not only ethical or legal obstacles such as concerns over privacy but also difficulties in training specialists who can competently interpret scientific results in court. Understanding how to utilize these scientific means efficiently is critical to today's criminal justice system, especially regarding high-tech or computer crimes. That is why the issue of designing effective methods of utilizing innovative technologies in crime detection becomes crucial in order to create mechanisms guaranteeing safety, stability, and fairness in society. The emergence of modern technologies in detecting crimes is one of the critical components that can help increase the effectiveness of investigating and improve the results of the investigation process.