**Sustainable Development Goal - 16**

**Peace and Justice Strong Institutions**

**Promote peaceful and inclusive societies for sustainable development; provide access to justice for all.**

The United Nations' Sustainable Development Goals (SDGs) aim to promote sustainable development and address global challenges. One of the key goals is Goal 16, which is to promote peaceful and inclusive societies for sustainable development and provide access to justice for all. This goal highlights the importance of creating safe and secure environments that allow people to live and work without fear of violence or discrimination. In this context, the development of advanced security systems that use machine learning and computer vision algorithms can help to achieve this goal.

The paper presented a security system that combines YOLO v7 and Haar Cascade algorithms for weapon detection and facial recognition, respectively. The proposed system uses YOLOv7 object detection for weapon detection and a deep convolutional neural network (CNN) for weapon identification. The system can identify various weapon classes, including handguns, swords, SMGs, snipers, automatic rifles, bazookas, grenade launchers, knives, and shotguns. The Haar Cascade algorithm was used for facial recognition, achieving high accuracy in identifying faces.

The proposed system offers an effective solution to ensure safety and security in public places. The WhatsApp and Email notification and Sound Alarm alert system are an added feature to notify users in real-time when a weapon is detected, enhancing public safety measures. The system can be implemented in various settings, including airports, train stations, schools, shopping malls, and public gatherings, to prevent potential threats and provide an extra layer of safety. By doing so, this system contributes to achieving Goal 16 of the SDGs by promoting peaceful and inclusive societies and providing access to justice for all.

The implementation of this security system can have a significant impact on improving public safety and security, especially in areas where violence and crime are prevalent. This system can detect potential threats and alert security personnel in real-time, preventing incidents before they occur. By ensuring that public spaces are safe and secure, this system can encourage people to engage in public activities and promote a sense of inclusivity and community.

Furthermore, the system's incorporation of facial recognition technology can assist in identifying potential suspects or persons of interest in real-time based on their facial features. This technology has the potential to enhance public safety measures and provide access to justice for all.

In conclusion, the development of advanced security systems that use machine learning and computer vision algorithms can help to achieve Goal 16 of the SDGs. The proposed security system presented in this paper offers an effective solution to ensure safety and security in public places. By combining weapon detection and facial recognition technologies, this system can detect potential threats and provide an extra layer of safety. The implementation of this system can have a significant impact on improving public safety and security, promoting peaceful and inclusive societies and providing access to justice for all.