

5.Results:

- The system successfully detected and anonymized number plates in test images.
- The blurred regions made the license plate unreadable, ensuring privacy.

Example outcome:

- **Input Image** → Car with visible license plate.
- **Output Image** → Same car, but number plate blurred.

Advantages of this approach:

- **Fast Execution** – Haar Cascade is lightweight and efficient.
- **Accurate Localization** – Works well on standard frontal images.
- **Privacy Protection** – Masking ensures anonymity.

6.Conclusion

This project demonstrates a practical application of **computer vision for privacy protection**. Using **OpenCV** and **Haar Cascade Classifiers**, we can accurately detect number plates in vehicle images and mask them effectively.

Key takeaways:

- The system works on static images and can be extended to **real-time video streams**.
- Provides a **privacy-preserving alternative** to traditional ANPR.
- Forms a **solid foundation** for further projects like vehicle recognition, smart traffic monitoring, and automated toll systems.