# CONCLUSION

This SLR presents various state-of-the-art methods for detecting Deep fake published in 112 studies from the beginning of 2018 to the end of 2020. We present basic techniques and discuss different detection models' efficacy in this work.

We summarize the overall study as follows:

\_ The deep learning-based methods are widely used in detecting Deep fake.

\_ In the experiments, the FF++ dataset occupies the largest proportion.

\_ The deep learning (mainly CNN) models hold a significant percentage of all the models.

\_ The most widely used performance metric is detection accuracy.

\_ The experimental results demonstrate that deep learning techniques are effective in detecting Deep fake. Further, it can be stated that, in general, the deep learning models outperform the non-deep learning models. With the rapid progress in underlying multimedia technology and the proliferation of tools and applications, Deep fake detection still faces many challenges. We hope this SLR provides a valuable resource for the research community in developing effective detection methods and countermeasures.