

# Deep fakes: Technological, Ethical and Legal Perspectives

Lalit Lodhi<sup>1</sup>, Rohan Mishra<sup>2</sup>, Krishankant<sup>3</sup>, Priyanka Singh<sup>4</sup>

<sup>1,2,3</sup>Scholar Students, Computer Science & Engineering IoT Department

<sup>4</sup>Assistant Professor, Computer Science & Engineering IoT Department

Raj Kumar Goel Institute of Technology, Ghaziabad, UP, India

<sup>1</sup>lalitlodhi868@gmail.com, <sup>2</sup>rohanmishra123986@gmail.com

<sup>3</sup>krishankanttyagi201206@gmail.com, <sup>4</sup>spriyanka2605@gmail.com

**Abstract:** *As a result of the rapid diffusion of information across digital media, people and societies need to evaluate the reliability of information. Deep fakes are not new but they are now an epidemic. The effects of deep fakes and disinformation can cause people to be infuriated by influencing and misleading people and societies and even countries. Several methods exist to identify and produce deepfakes over the internet. In this paper, through systematic analysis of literature, we present automatic key detection and generation techniques, frameworks, algorithms, and tools for deep fake identification (audio, images, and videos) and how these methods can be applied in various scenarios to combat the propagation of deepfakes and the creation of misinformation. In addition, we examine cutting-edge frameworks pertaining to deepfakes to see how new machine learning and deep learning methodologies influence online disinformation. We further identify applied challenges and trends in implementing policy against deepfakes. Lastly, we give policy recommendations through examining how new artificial intelligence (AI) methodologies can be used to identify and create deepfakes online. This research serves the community and readers by giving better insight into recent advances in deep fake detection and generation models. The research also gives a light on the future of AI concerning deep fakes.*

**Keywords:** Home Automation System, Remote Control via mobile, Wi-Fi Control, Smart lighting, Mobile app, Internet of Things (IoT).

