

Foreword

The advances and convergence of information and communication technology (ICT) and multimedia techniques have brought about unprecedented possibilities and opportunities. The upside is that we benefit from the convenience that these technologies have to offer. Information can be exchanged in various forms of media through far-reaching networks, while multimedia processing techniques facilitate efficient fusion of media with stunning effects, which have already made a profound impact on the ways we communicate, learn, and entertain. However, the downside is that these technologies could also be exploited for malicious purposes such as copyright piracy and document forgery, to name a few. To prevent abuses of the usage of ICT and multimedia techniques, the study of multimedia forensics and security has emerged in recent years as a new interdisciplinary area encompassing aspects of digital cryptography, digital watermarking, data hiding, steganography, and steganalysis. Moreover, multimedia forensic techniques have also opened up a new horizon for helping companies, government, and law enforcement agencies in combating crime and fraudulent activities.

The past decade has seen an exciting development of techniques revolving around the issues of multimedia forensics and security. Although a number of quality books have been published in the literature, the fast-advancing technology in this field entails a constant renewal of systematic and comprehensive accounts of the latest researches and developments. Aiming at serving this purpose, this book contains a collection of informative and stimulating chapters written by knowledgeable experts and covers a wide spectrum of the state-of-the-art techniques for tackling the issues of multimedia forensics and security. Each chapter is a self-contained treatment on one aspect of the broad subject, allowing the readers to follow any order of their liking. The chapters are selected to suit readers of different levels with various interests, making this book an invaluable reference for beginners as well as experts alike.

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