

Guest Editorial

Special Issue on Signal Processing for Data Hiding in Digital Media and Secure Content Delivery

THE “Digital Revolution,” along with the recent developments in the Internet, have made the access of information convenient to users and has increased its consumption tremendously. However, this technological progress has also made digital data very vulnerable to unauthorized use and has caused significant economical losses for the content producers and rights holders. Therefore, there has been a flurry of research and development effort in the field of information security technology and systems for various applications spanning multimedia to military. Data hiding is one of the promising technologies helping to achieve the overall goal of secure delivery of information from its source to the authorized end-users. Although there are several early applications of data hiding (e.g., audio and video watermarking, broadcast monitoring, secret communications), we expect to see many other uses of data hiding technology in the future.

The theoretical frameworks of data hiding are maturing, but its potential merit very much depends on the nature of a given application scenario. Therefore, subjective measures play a crucial role in the design of data hiding algorithms and their fine tuning. There are many ways to hide data in a cover. This fact makes it a very challenging task, theoretically and practically, to detect any hidden data in an arbitrary cover signal, given that the data hiding method is unknown at the detector.

This special issue comprises contributions from researchers in data hiding. We would like to thank them, and the reviewers,

for their efforts in creating this special issue on a timely topic. We hope you enjoy it.

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