# Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering

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# Forensics in Telecommunications, Information, and Multimedia

Third International ICST Conference, e-Forensics 2010 Shanghai, China, November 11-12, 2010 Revised Selected Papers



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### **Preface**

E-Forensics 2010, the Third International ICST Conference on Forensic Applications and Techniques in Telecommunications, Information and Multimedia, was held in Shanghai, China, November 11-12, 2010. The conference was sponsored by ICST in cooperation with Shanghai Jiao Tong University (SJTU), the Natural Science Foundation of China (NSFC), Science and Technology Commission of Shanghai Municipality, Special Funds for International Academic Conferences of Shanghai Jiao Tong University, the 3rd Research Institute of the Ministry of Public Security, China, East China University of Political Science and Law, China, NetInfo Security Press and Xiamen Meiya Pico Information Co. Ltd.

The aim of E-Forensics conferences is to provide a platform for the exchange of advances in areas involving forensics such as digital evidence handling, data carving, records tracing, device forensics, data tamper identification, mobile device locating, etc. The first E-Forensics conference, E-Forensics 2008, was held in Adelaide, Australia, January 21–22, 2008; the second, E-Forensics 2009, was held in Adelaide, Australia, January 19–21, 2009.

This year, the conference received 42 submissions and the Program Committee selected 32 papers after a thorough reviewing process, appear in this volume, together with 5 papers from the Workshop of E-Forensics Law held during the conference. Selected papers are recommended for publication in the journal *China Communications*.

In addition to the regular papers included in this volume, the conference also featured three keynote speeches: "Intelligent Pattern Recognition and Applications" by Patrick S. P. Wang of Northeastern University, USA, "Review on Status of Digital Forensic in China" by Rongsheng Xu of the Chinese Academy of Sciences, China, and "Interdisciplinary Dialogues and the Evolution of Law to Address Cybercrime Issues in the Exciting Age of Information and Communication Technology" by Pauline C. Reich of Waseda University School of Law, Japan.

The TPC decided to give the Best Paper Award to Xiaodong Lin, Chenxi Zhang, and Theodora Dule for their paper "On Achieving Encrypted File Recovery" and the Best Student Paper Award to Juanru Li, Dawu Gu, Chaoguo Deng, and Yuhao Luo for their paper "Digital Forensic Analysis on Runtime Instruction Flow."

Here, we want to thank all the people who contributed to this conference. First, all the authors who submitted their work; the TPC members and their external reviewers, the organizing team from the Department of Computer Science and Engineering of Shanghai Jiao Tong University—Zhihua Su, Ning Ding,

### VI Preface

Jianjie Zhao, Zhiqiang Liu, Shijin Ge, Haining Lu, Huaihua Gu, Bin Long, Kai Yuan, Ya Liu, Qian Zhang, Bailan Li, Cheng Lu, Yuhao Luo, Yinqi Tang, Ming Sun, Wei Cheng, Xinyuan Deng, Bo Qu, Feifei Liu, and Xiaohui Li—for their great efforts in making the conference run smoothly.

November 2010

Xuejia Lai Dawu Gu Bo Jin Yongquan Wang Hui Li

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