

Contents

Part I Overview on Multimedia Data Security and Its Evaluation

Security of Multimedia Contents: A Brief	3
Amira S. Ashour and Nilanjan Dey	
A Survey on Intelligent Security Techniques for High-Definition Multimedia Data	15
S.D. Desai, N.R. Pudakalakatti and V.P. Baligar	
Intelligent Morphing and Steganography Techniques for Multimedia Security	47
Anant M. Bagade and Sanjay N. Talbar	
Information Hiding: Steganography	65
V. Thanikaiselvan, Shounak Shastri and Shaik Ahmad	
Digital Watermarking: A Potential Solution for Multimedia Authentication	93
Kaiser J. Giri and Rumaan Bashir	
Real-time Implementation of Reversible Watermarking	113
H.R. Lakshmi, B. Surekha and S. Viswanadha Raju	
Comparative Approach Between Singular Value Decomposition and Randomized Singular Value Decomposition-based Watermarking	133
Sayan Chakraborty, Souvik Chatterjee, Nilanjan Dey, Amira S. Ashour and Aboul Ella Hassanien	
Biometric-Based Security System: Issues and Challenges	151
Ujwalla Gawande, Yogesh Golhar and Kamal Hajari	

Parametric Evaluation of Different Cryptographic Techniques for Enhancement of Energy Efficiency in Wireless Communication Network	177
Alka P. Sawlikar, Z.J. Khan and S.G. Akojwar	
Part II Personal Authentication and Recognition Systems	
Hand Image Biometric Based Personal Authentication System	201
Ravinder Kumar	
A Study on Security and Surveillance System Using Gait Recognition	227
M. Sivarathinabala, S. Abirami and R. Baskaran	
Face Recognition Under Dry and Wet Face Conditions	253
K. Dharavath, F.A. Talukdar, R.H. Laskar and N. Dey	
Improved Approach for 3D Face Characterization	273
S. Sghaier, C. Souani, H. Faeidh and K. Besbes	
Attendance Recording System Using Partial Face Recognition Algorithm	293
Borra Surekha, Kanchan Jayant Nazare, S. Viswanadha Raju and Nilanjan Dey	
Automatic Human Emotion Recognition in Surveillance Video	321
J. Arunnehru and M. Kalaiselvi Geetha	
Part III Medical Security Applications	
Watermarking in Biomedical Signal Processing	345
Nilanjan Dey, Amira S. Ashour, Sayan Chakraborty, Sukanya Banerjee, Evgeniya Gospodinova, Mitko Gospodinov and Aboul Ella Hassanien	
Pixel Repetition Technique: A High Capacity and Reversible Data Hiding Method for E-Healthcare Applications	371
S.A. Parah, F. Ahad, J.A. Sheikh, N.A. Loan and G.M. Bhat	
Part IV Security for Various Multimedia Contents	
A New Method of Haar and Db10 Based Secured Compressed Data Transmission Over GSM Voice Channel	401
Javaid Ahmad Sheikh, Sakeena Akhtar, Shabir Ahmad Parah and G.M. Bhat	
StegNmark: A Joint Stego-Watermark Approach for Early Tamper Detection	427
S.A. Parah, J.A. Sheikh and G.M. Bhat	

**Adaptive Color Image Watermarking Scheme Using Weibull
Distribution 453**
V. Santhi

**Multi-fingerprint Unimodel-based Biometric Authentication
Supporting Cloud Computing 469**
P. Rajeswari, S. Viswanadha Raju, Amira S. Ashour and Nilanjan Dey

Intelligent Techniques in Signal Processing for
Multimedia Security

Dey, N.; Santhi, V. (Eds.)

2017, IX, 485 p. 226 illus., 96 illus. in color., Hardcover

ISBN: 978-3-319-44789-6