

2011 3rd European Workshop on Visual Information Processing (EUVIP 2011)

**Paris, France
4-6 July 2011**



**IEEE Catalog Number: CFP1106K-PRT
ISBN: 978-1-4577-0072-9**

Technical Program

Monday July 4

08:45 **Registration**

09:15 **Opening Session**

09:30 **Plenary 1: COMPUTATIONAL COLOR CONSTANCY, 001**

Raimondo Schettini (University of Milano-Bicocca, Italy)

Oral Session 1-1: Color, Image and Video Processing

Chairs: J.Y. Hardeberg (Giøvik University College, Norway)

R. Schettini (University of Milano-Bicocca, Italy)

10:35 **Invited Paper: RECENT PROGRESS IN QUANTIFYING
COLOUR REPRODUCTION QUALITY 008**

Jon Yngve Hardeberg.

10:55 **Coffee Break**

11:10 **IMPROVE GAMUT MAPPING OF COLOR
MANAGEMENT SYSTEM BY PERCEPTUAL QUALITY-
ORIENTED ANALYSIS, 012**

Shaohua Chen, Azeddine Beghdadi.

11:30 **CIE UNIFORM CHROMATICITY SCALE DIAGRAM FOR
MEASURING PERFORMANCE OF OSA-UCS ΔE AND
CIEDE00 FORMULAS, 018**

Dibakar Pant, Ivar Farup.

11:50 **ARTIFACT REDUCTION OF COMPRESSED IMAGES
AND VIDEO COMBINING ADAPTIVE FUZZY FILTERING
AND DIRECTIONAL ANISOTROPIC DIFFUSION 024**

Ehsan Nadernejad, Søren Forchhammer, Jari Korhonen.

12:10 MARKOV RANDOM FIELDS USING COMPLEX LINE
PROCESS: AN APPLICATION TO BAYESIAN IMAGE
RESTORATION 030

Ziv Mhabary, Ofer Levi, Shaul Cohen.

12:30 IMAGE DENOISING USING BILATERAL FILTER IN
HIGH DIMENSIONAL PATCH-SPACE 036

Quoc Bao Do, Azeddine Beghdadi, Marie Luong.

12:50 **Lunch Break**

Oral Session 1-2: Image and Video Coding

Chairs: F. Dufaux (Ecole Polytechnique Fédérale de Lausanne, Switzerland)
A. Naït-Ali (University Paris 12, France)

14:00 **Invited Paper:** IMPROVED SIDE INFORMATION GENERATION
FOR DISTRIBUTED VIDEO CODING, 042

*Abdalbassir Abou Elailah, Joumana Farah, Marco Cagnazzo,
Béatrice Pesquet-Popescu, Frédéric Dufaux.*

14:20 SCALABLE VIDEO CODING USING MOTION-COMPENSATED
TEMPORAL FILTERING, 050

Azza Ouled Zaid, Bilel Ben Fradj.

14:40 AN ADAPTIVE FRAMEWORK FOR H.264 OPTIMIZED
ENCODING, 056

*Rafael Galvao de Oliveira, Maria Trocan, Beatrice Pesquet-Popescu,
Nicolas Tizon.*

15:00 ADAPTIVE QUANTIZATION BASED ON SALIENCY MAP AT
FRAME LEVEL OF H.264/AVC RATE CONTROL SCHEME, 061

*Miryem Hrarti, Hakim Saadane, Chaker Larabi, Ahmed Tamtaoui,
Driss Aboutajdine.*

15:20 MEAN PREDICTIVE BLOCK MATCHING (MPBM) FOR FAST
BLOCK-MATCHING MOTION ESTIMATION, 067

Zaynab Ahmed, Abir Hussain, Dhiya Al-Jumeily.

15:40 LOW COMPLEXITY TRUNCATED GRAY-CODED BIT PLANE
MATCHING BASED MULTIPLE CANDIDATE MOTION
ESTIMATION, 073

Changryoul Choi, Jechang Jeong.

16:00 **Coffee Break**

16:15-18:00 **Poster Session 1**

Chairs: A. Tremeau (University Jean Monnet, France)
F.A. Cheikh (Gjøvik University College, Norway)

**Poster Session 1-1:
Image Analysis and Processing**

IMAGE QUALITY METRICS BASED MULTI-FOCUS IMAGE
FUSION, 077

Amina Saleem, Azeddine Beghdadi, Boualem Boashash.

GENETIC ALGORITHM CLUSTERING FOR IMAGE
QUANTIZATION, 083

Fatima Zohra Bellala Belahbib, Feryel Souami.

A NEW METHOD FOR LICENSE PLATE VALIDATION USING
THE ORIENTATIONS ALGORITHM, 088

Kamel Kahina, Abdelaziz Ouamri, Mokhtar Keche.

AUTOMATIC IMAGE REGISTRATION FOR ARM
RADIOGRAPHIES, 093

Kamel Bensebaa, Gabriel Ferreira, Artur Oliveira.

**Poster Session 1-2:
3D and Multiview**

CO-OPERATIVE SURVEILLANCE CAMERAS FOR HIGH
QUALITY FACE ACQUISITION IN A REAL-TIME DOOR
MONITORING SYSTEM, 099

*Nurulfajar Abd Manap, Gaetano Di Caterina, Masrullizam Mat
Ibrahim, John Soraghan.*

FAST HDR IMAGE GENERATION FROM MULTI-EXPOSED
MULTIPLE-VIEW LDR IMAGES, 105

Andrey Vavilin, Kang-Hyun Jo.

SMOOTHNESS OF VIEWPOINT TRANSITIONS IN MULTIVIEW
VIDEO SYSTEMS, 111

Athena Buckthought.

PERCEPTUAL CODING FOR 3D RECONSTRUCTION, 116

Christopher Tyler, Spero Nicholas.

**Poster Session 1-3:
Visual Tracking and Video Analysis**

ADAPTIVE MODULATION METHOD FOR MGS VIDEO
STREAMING, 122

Daeyeon Kim, Takeo Fujii, Kyesan Lee.

BACKGROUND SUPPRESSION WITH LOW-RESOLUTION
CAMERA IN THE CONTEXT OF MEDICATION INTAKE
MONITORING, 128

Gabriel Dauphin, Sami Khanfir.

CARDIAC MOTION ANALYSIS USING FACTORIZATION
METHOD, 134

Abdelkrim Harhad, Nadia Souag.

COLLABORATIVE CAMERAS FOR MULTI-TARGET
TRACKING USING COLOR BASED PARTICLE FILTER AND
OBJECT CONTOUR, 138

Sajib Saha.

CAMSHIFT IMPROVEMENT ON MULTI-HUE OBJECT AND
MULTI-OBJECT TRACKING, 143

Priyanto Hidayatullah, Hubert Konik.

Tuesday July 5

09:00 **Plenary 2: PERCEIVING DISTORTIONS IN VISUAL SIGNALS, 149**

Alan C. Bovik (University of Texas at Austin, USA)

Oral Session 2-1: Image and Video Quality Assessment

Chairs: K. Egiazarian (Tampere University of Technology, Finland)

A.C. Bovik (University of Texas at Austin, USA)

10:05 **Invited Paper:** HVS-METRIC-BASED PERFORMANCE

ANALYSIS OF IMAGE DENOISING ALGORITHMS, 156

Karen Egiazarian.

10:25 AN EFFECTIVE AND EFFICIENT VISUAL QUALITY INDEX

BASED ON LOCAL EDGE GRADIENTS, 162

Heinz Hofbauer, Andreas Uhl.

10:45 **Coffee Break**

11:00 NO-REFERENCE BLURRED IMAGE QUALITY ASSESSMENT, 168

Amina Serir.

11:20 AN EFFICIENT NO-REFERENCE METRIC FOR PERCEIVED

BLUR, 174

Hantao Liu, Junle Wang, Judith Redi, Patrick Le Callet, Ingrid

Heynderickx.

11:40 SUBJECTIVE QUALITY OF SVC-CODED VIDEOS WITH

DIFFERENT ERROR-PATTERNS CONCEALED USING SPATIAL

SCALABILITY, 180

Yohann Pitrey, Ulrich Engelke, Marcus Barkowsky, Romuald Pepion,

Patrick Le Callet.

12:00 QUALITY ESTIMATION BASED ON INTEREST POINTS

THROUGH HIERARCHICAL SALIENCY MAPS, 186

Michael Nauge, Chaker Larabi.

12:20 **Lunch Break**

Oral Session 2-2: Multimedia Security

Chairs: W. Puech (LIRMM, France)

M. Deriche (KFUPM, Kingdom of Saudi Arabia)

14:00 **Invited Paper:** DECRYPTION OF NOISY ENCRYPTED IMAGES
BY STATISTICAL ANALYSIS, 192

William Puech.

14:20 A HYBRID WATERMARKING SCHEME FOR CCL-APPLIED
VIDEO CONTENTS, 199

Hee-Dong Kim, Tae-Woo Oh, Ji-Won Lee, Heung-Kyu Lee.

14:40 FUZZY-GA HYBRIDIZATION IN M-BAND WAVELETS FOR
COLLUSION RESILIENT OPTIMIZED SS WATERMARKING, 205

Santi Maity, Claude Delpha, Seba Maity, Jaya Sil.

15:00 A VISUAL SENSITIVITY MODEL BASED STEREO IMAGE
WATERMARKING SCHEME, 211

Yaquing Niu, Wided Mseddi, Azeddine Beghdadi.

15:20 DWT-BASED ROBUST VIDEO FINGERPRINTING, 216

Adriana Garboan, Mihai Mitrea, Françoise Prêteux.

Wednesday July 6

09:30 **Plenary 3: SIMILARITY AND PROTOTYPE: TWO KEY ISSUES**
IN PERCEPTIVE AND SUBJECTIVE INFORMATION, *Bernadette Bouchon-Meunier* (University Paris 6, France) 222

10:30 **Coffee Break**

Oral Session 3-1: Color, Image and Video Processing

Chairs: B. Bouchon-Meunier (University Paris 6, France)
G. Boccignone (University of Milano, Italy)

- 10:45 OBJECTIVE VALIDATION OF A DYNAMICAL AND
PLAUSIBLE COMPUTATIONAL MODEL OF VISUAL
ATTENTION, 223
Matthieu Perreira Da Silva, Vincent Courboulay, Pascal Estraillier.
- 11:05 A SEMI-AUTOMATIC RELATIVE CALIBRATION OF A FIXED
AND PTZ CAMERA PAIR FOR MASTER-SLAVE CONTROL, 229
Mohanty Kaminikanta, Mahesh Gellaboina.
- 11:25 MODELLING EYE-MOVEMENT CONTROL VIA A
CONSTRAINED SEARCH APPROACH, 235
Giuseppe Boccignone, Mario Ferraro.

11:45 **Lunch Break**

13:45 -15:30 **Poster Session 3**

Chairs : C. Delpha (University Paris-Sud, France)
A. Serir (USTHB, Algiers, Algeria)

Poster Session 3-1: Biometrics

- BEYOND CLASSICAL BIOMETRICS: WHEN USING HIDDEN
BIOMETRICS TO IDENTIFY INDIVIDUALS, 241
Amine Naït-Ali.
- BLOCK RIDGELET AND SVM BASED FINGERPRINT
MATCHING, 247
Leila Boutella, Amina Serir.

FUSION BY COMBINATION OF SCORES MULTI-BIOMETRIC SYSTEMS, 252

Mébarka Belahcène, Abd El Malik Ouamane, Abd El Malik Taleb-Ahmed.

NEW BIOMETRIC APPROACH BASED ON GEOMETRICAL HUMAIN BRAIN PATTERNS RECOGNITION: SOME PRELIMINARY RESULTS, 258

Kamel Aloui, Amine Naït-Ali, Saber Naceur.

FACE RECOGNITION BASED ON GABOR FEATURES, 264

Len Bui, Dat Tran, Xu Huang, Girija Chetty.

CLASSIFICATION OF GENDER AND FACE BASED ON GRADIENT FACES, 269

Len Bui, Dat Tran, Xu Huang, Girija Chetty, Dharmendra Sharma.

Poster Session 3-2: Retrieval and Mining

STATISTICAL ANALYSIS OF THE QUANTIZATION STAGE OF ROBUST PERCEPTUAL IMAGE HASHING, 274

Azhar Hadmi, William Puech, Brahim Ait Es Said, Abdellah Ait Ouahman.

PROTUBERANCE SELECTION DESCRIPTOR FOR BREAST CANCER DIAGNOSIS, 280

Imene Cheikhrouhou, Khalifa Djemal, Hichem Maaref.

ORIENTATION HISTOGRAM OF SIFT DISPLACEMENT FOR RECOGNIZING ACTIONS IN BROADCAST VIDEOS, 286

Kuan-Ting Lai, Ming-Syan Chen, Chaur-heh Hsieh, Mao-Fu Lai.

A NOVEL APPROACH FOR PERSIAN/ARABIC INTELLIGENT WORD RECOGNITION, 292

Reza Ravani, Parham Nooralishahi, Amir Sadegh Amani.

15:30 **Closing Session**