# The 9th Colour and Visual Computing Symposium 2018 (CVCS 2018)

Dates: September 19-20, 2018, Gjøvik, Norway

Venue: A-Building (Ametyst-bygget) Atrium, Norwegian University of

Science and Technology Gjøvik

# **Conference Program**

Registration: Wednesday, September 19, 08:30 - 08:45

Conference opening: Wednesday, September 19, 08:45 - 09:00

Session Type: Keynote I

Session Type: Poster

Time: Wednesday, September 19, 09:00 - 09:45
Location: A-Building (Ametyst-bygget) Atrium
Keynote speaker: Holly Rushmeier, Yale University
Title: Material Appearance Issues in Cultural Heritage

**Time:** Wednesday, September 19, 10:30 - 12:30 **Location:** A-Building (Ametyst-bygget) Atrium

**Session Chair:** Jean-Baptiste Thomas, NTNU Norway

#### PID: 05

Novel approach to uniformization of a color space via generic deep learning-based transformation Oleksii Sidorov; CoSI student, University of Granada, Spain

# PID: 07

Deep learning for dehazing: Comparison and analysis

Leonel Cuevas Valeriano; The Norwegian Colour and Visual Computing Laboratory, NTNU Norway Jean-Baptiste Thomas; The Norwegian Colour and Visual Computing Laboratory, NTNU Norway Alexandre Benoit; LISTIC, Univ. Savoie Mont Blanc, France

# PID: 11

Can image quality enhancement methods improve the performance of biometric systems for degraded face images?

Xinwei Liu; Norwegian University of Science and Technology, Gjøvik, Norway Marius Pedersen; Norwegian University of Science and Technology, Gjøvik, Norway Christophe Charrier; Normandie Univ, UNICAEN, ENSICAEN, CNRS, France Patrick Bours; Norwegian University of Science and Technology, Gjøvik, Norway

#### **PID: 12**

# Hand-crafted vs deep features: A quantitative study of pedestrian appearance model

Mohib Ullah; Norwegian University of Science and Technology, Norway.

Mohammed Ahmed Kedir; Norwegian University of Science and Technology, Norway.

Faouzi Alaya Cheikh; Norwegian University of Science and Technology, Norway.

#### PID: 13

# Melon crack identification and classification using k-means clustering for quality inspection

Uldanay Bairam, Norwegian University of Science and Technology, Gjøvik, Norway Philip John Green, Norwegian University of Science and Technology, Gjøvik, Norway

#### **PID: 16**

# Statistics of hyperspectral data/image analysis: Entropy

Yu-Jung Chen; XLIM, JRU CNRS 7252, University of Poitiers, France Noël Richard; XLIM, JRU CNRS 7252, University of Poitiers, France Hilda Deborah; Norwegian University of Science and Technology, Norway

Aurélie Tournié, CRC, NMNH, France Anne Michelin; CRC, NMNH, France Christine Andraud; CRC, NMNH, France

#### **PID: 17**

# A corrected single-constant Kubelka-Munk model for color prediction of pre-colored fiber blends

Chun-ao Wei; School of Printing and Packaging Wuhan University, China Xiaoxia Wan; School of Printing and Packaging Wuhan University, China Hang Luo; School of Printing and Packaging Wuhan University, China

#### **PID: 22**

# A key frame based video summarization using color features

Muhammad Asim; Qatar University, Doha, Qatar Noor Almaadeed; Qatar University, Doha, Qatar Somaya Al-maadeed; Qatar University, Doha, Qatar

Ahmed Bouridane; Department of Computer and Information Sciences, Northumbria University, UK

Azeddine Beghdadi; L2TI, Université Paris 13, France

#### **PID: 29**

# Determining the sequence of intersecting lines in document forgery by colorimetric evaluation

Atefeh Tajik Esmaeili; Department of Printing Science and Technology, Institute for Color Science and Technology, Tehran, Iran

Mahdi Safi; Department of Printing Science and Technology, Institute for Color Science and Technology, Tehran, Iran

Maryam Ataeefard; Department of Printing Science and Technology, Institute for Color Science and Technology, Tehran, Iran

# **PID: 31**

#### A pilot study on Iranian skin color

Majid Ansari-Asl; Color Imaging Laboratory, University of Granada, Spain

Keivan Ansari; Department of Color Imaging & Color Image Processing, Iranian Institute for Color Science and Technology, Iran

#### **PID: 33**

# Spatially dependent white balance for fill flash photography

Enrique Gurdiel; The Norwegian Colour and Visual Computing Laboratory, NTNU Norway Jon Yngve Hardeberg; The Norwegian Colour and Visual Computing Laboratory, NTNU Norway

#### **PID: 36**

CNN feature similarity: Paintings are more self-similar at all levels

Seyed Ali Amirshahi; Norwegian Colour and Visual Computing Laboratory, NTNU Norway Stella X. Yu; UC Berkeley/ ICSI, Berkeley, CA., USA

#### **PID: 40**

A deep learning-based human activity recognition in darkness

Md. Zia Uddin; Dept. of Informatics, University of Oslo, Norway Jim Torresen; Dept. of Informatics, University of Oslo, Norway

Session Type: Keynote II

**Time:** Wednesday, September 19, 13:00 - 13:45 **Location:** A-Building (Ametyst-bygget) Atrium

**Keynote speaker:** Michael Felsberg, Linköping University

Title: Online Machine Learning for Robot Vision

Session and Type: Vision, Oral

**Time:** Wednesday, September 19, 14:00 - 15:00

Location: A-Building (Ametyst-bygget) Atrium

Session Chair: Holly Rushmeier

#### **PID: 14**

# CEED - A Database for image contrast enhancement evaluation

Azeddine Beghdadi; L2TI, Institut Galilée, Université Paris 13, Sorbonne Paris Cité, France Muhammad Ali Qureshi; The Islamia University of Bahawalpur, Pakistan Bilel Sdiri; L2TI, Institut Galilée, Université Paris 13, Sorbonne Paris Cité, France Mohamed Deriche; King Fahd University of Petroleum and Minerals, Saudi Arabia Faouzi Alaya-Cheikh; Norwegian University of Science and Technology, Gjøvik, Norway

#### PID: 09

Colour-to-Greyscale image conversion by linear anisotropic diffusion of perceptual colour metrics

Ivar Farup; Norwegian University of Science and Technology, Gjøvik, Norway Marius Pedersen; Norwegian University of Science and Technology, Gjøvik, Norway Ali Alsam; Norwegian University of Science and Technology, Trondheim, Norway

#### **PID: 28**

Methods for psychophysical assessment of colour difference by observers with a colour vision deficiency

Anne Kristin Kvitle; Norwegian University of Science and Technology, Gjøvik, Norway Henrik Oddløkken; Norwegian University of Science and Technology, Gjøvik, Norway Phil Green; Norwegian University of Science and Technology, Gjøvik, Norway Peter Nussbaum; Norwegian University of Science and Technology, Gjøvik, Norway

Session and Type: Color Imaging, Oral
Time: Wednesday, September 19, 15:20 - 16:20
Location: A-Building (Ametyst-bygget) Atrium

Session Chair: Shoji Tominaga, NTNU Norway

# **PID: 20**

# Comparison of mosaic patterns for spectral filter arrays

Davit Gigilashvili; Norwegian University of Science and Technology, Gjøvik, Norway Jon Yngve Hardeberg; Norwegian University of Science and Technology, Gjøvik, Norway Jean-Baptiste Thomas; Norwegian University of Science and Technology, Gjøvik, Norway

#### **PID: 35**

Dye purification: an image-processing technique for the digital restoration of chromogenic film

Giorgio Trumpy; Department of Film Studies, University of Zurich Barbara Flueckiger; Department of Film Studies, University of Zurich

#### **PID: 23**

# Evaluation of color correction methods for printed surfaces

Maliha Ashraf; Univerist´e Jean Monnet, Océ Print Logic Technologies S.A. Créteil, France Luis Ricardo Sapaico; Océ Print Logic Technologies S.A. Créteil, France

Session Type: Invited Paper

**Time:** Wednesday, September 19, 16:20 - 16:45 **Location:** A-Building (Ametyst-bygget) Atrium

Invited speaker: Patrick Callet; CAOR-Mines ParisTech

**Title:** Transparent Materials - Colour and Appearance

# Thursday 20. September 2018

**Session Type**: Keynote III

**Time:** Thursday, September 20, 09:15 - 10:00 **Location:** A-Building (Ametyst-bygget) Atrium

**Keynote speaker:** Marcelo Bertalmío, Universitat Pompeu Fabra **Title:** From Vision Models To Cinema Applications, And Back

Session and Type: Colour and Light, Oral

**Time:** Thursday, September 20, 10:15 - 11:15

Location: A-Building (Ametyst-bygget) Atrium

Session Chair: Patrick Callet

#### **PID: 15**

Effects of ambient illumination on text recognition for UI development

Giovanni Pignoni; Department of Design, Norwegian University of Science and Technology

#### **PID: 04**

Evaluation of gamut mapping algorithms in different uniform colour spaces

Baiyue Zhao; State Key Laboratory of Modern Optical Instrument, Zhejiang University, China Lihao Xu; State Key Laboratory of Modern Optical Instrument, Zhejiang University, China Ming Ronnier Luo; State Key Laboratory of Modern Optical Instrument, Zhejiang University, China Muhammad Safdar; COMSATS Institute of Information Technology, Pakistan

#### **PID: 34**

Photorealistic style transfer for cinema shoots

Itziar Zabaleta; Dpt. of Information and Communication Technologies, Universitat Pompeu Fabra Marcelo Bertalmio; Dpt. of Information and Communication Technologies, Universitat Pompeu Fabra

**Session and Type**: Medical, Oral

**Time:** Thursday, September 20, 11:30 - 12:30 **Location:** A-Building (Ametyst-bygget) Atrium

Session Chair: Azzedine Beghdadi

# **PID: 21**

Validation of stereo vision based liver surface reconstruction for image guided surgery

Teatini Andrea; The Intervention Centre, Oslo University Hospital, Oslo, Norway. Wang Congcong; Norwegian University of Science and Technology, Gjøvik, Norway Palomar Rafael; The Intervention Centre, Oslo University Hospital, Oslo; NTNU, Norway. Alaya Cheikh Faouzi; Norwegian University of Science and Technology, Gjøvik, Norway Beghdadi Azeddine; L2TI-Institut Galilée, Université Paris 13, Sorbonne Paris, France Edwin Bjørn; The Intervention Centre, Oslo University Hospital, Oslo, Norway. Elle Ole Jakob; The Intervention Centre, Oslo University Hospital, Oslo, Norway.

#### **PID: 37**

Stochastic correction of boundary conditions during liver surgery

Sergei Nikolaev; University of Strasbourg, Inria, France

Igor Peterlik; Inria, France Stephane Cotin; Inria, France

# **PID: 39**

# Enhancing dermoscopy images to improve melanoma detection

Olga Cherepkova; Norwegian University of Science and Technology, Gjøvik, Norway Jon Yngve Hardeberg; Norwegian University of Science and Technology, Gjøvik, Norway

Session and Type: Appearance, Oral
Time: Wednesday, September 20, 13:30 - 14:30

Location: A-Building (Ametyst-bygget) Atrium

Session Chair: Philipp Urban

# **PID: 24**

# Dependence of texture classification accuracy on spectral information

Michele Conni; Barbieri Electronic, Italy; Department of Computer Science, NTNU, Gjøvik, Norway Helene Midtfjord; Department of Computer Science, NTNU, Gjøvik, Norway Peter Nussbaum; Department of Computer Science, NTNU, Gjøvik, Norway Phil Green; Department of Computer Science, NTNU, Gjøvik, Norway

#### **PID: 27**

# Measurement uncertainty for printed textiles

Nadile Nunes de Lima; Barbieri electronic, Italy and NTNU Gjøvik Michele Conni; Barbieri electronic, Italy and NTNU Gjøvik Phil Green; Norwegian University of Science and Technology, Gjøvik, Norway Markus Barbieri; Barbieri electronic, Italy

#### **PID: 18**

# Application of spectral statistics to spectral texture discrimination

Hilda Deborah; Norwegian University of Science and Technology, Gjøvik, Norway Noël Richard; Laboratory XLIM, JRU CNRS 7252, University of Poitiers, France Jon Yngve Hardeberg; Norwegian University of Science and Technology, Gjøvik, Norway

# **Organizing Committee**

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