CFP Digital Photography VII (EI116) - Part of the IS&T/SPIE 23nd Annual Symposium on Electronic Imaging 2011

Call for papers

17 giugno 2010

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CALL FOR PAPERS

Digital Photography VII (EI116)
Part of the IS&T/SPIE 23nd Annual Symposium on Electronic Imaging 2011
23-27 January 2011 . San Jose Convention Center . San Jose, CA USA
Conference Chairs: Francisco H. Imai, Feng Xiao,
Conference Co-Chairs: Jeffrey M. DiCarlo, Nitin Sampat, Sebastiano Battiato

Digital photography is experiencing explosive growth both in the consumer and professional markets. Digital camera sales have exceeded multi-use film camera sales for several years, and since 2004, cell-phone camera sales exceeded both digital and film camera sales combined. Due to the many advances, by way of new component technologies, lens systems, and image processing techniques, digital photography has become a reality for consumers and professionals alike. This conference serves to bring together researchers, scientists, and engineers working in the imaging field to describe recent progress in digital and computational photography and all its relevant areas, from capture, processing, color, compression, transmission and applications, to photo-finishing

and hard and soft output. Papers are solicited in the following areas:

Image sensor technologies and sensor advancements

. pixel design and scaling
. filter design, CFA (color filter array) layouts
. camera on a chip
. interplay pixel optics between imaging optics

Sensor, lens, and system characterization

. pixel, ADC and sensor characterization
. crosstalk and vignetting
. lens systems and characterization
. IR, UV, anti-aliasing filter

Image processing technologies

. autofocus and autoexposure
. illuminant estimation and correction
. noise suppression and sharpening
. spatial and temporal demosaicing
. tone correction and color correction
. image enhancement algorithm
. compression
. image and video stabilization
. color image/video quality assessment
. adaptive image up-sampling, super-resolution
. sparse representation-based image restoration

Computational photography

. plenoptic, mosaicing solutions, and HDR cameras
. multicamera arrays, image composite technologies
. new optics and catadioptrics
. multi-spectral imaging
. depth estimation, extended depth of filed (EDOF)
. compressive imaging
. re-lighting, de-hazing
. real-time image processing, image understanding
. image rendering (HDR, perceptual, artistic)
. image quality criteria for computational photography
. joint optical-digital system design and optimization
. system-level cost/performance modeling and analysis

Innovative technologies for digital photography

. nanophotonics, nanoplasmonics
. black silicon
. quantum imaging and ghost imaging
. 3D camera, 3D sensor, 3D solutions and applications

Mobile imaging

. cell-phone and PDA cameras
. size, power, and processing issues

. storage, distribution, display and printing
. mobile imaging standards
. camera module usage patterns
. optical and electrical image-stabilization solutions
. compensation for dynamic range affected by pixel size
. mobile computational photography
. mobile visual search
. novel aperture design, method and implementation

Rendering technologies

. profiling techniques, color management
. soft and hard copy rendering
. photo kiosks and on-line photofinishing
. archival photography, revival of old photographs

Imaging standards

. image communications
. ISO speed, MTF, and color image encodings
. image storage technologies
. file formats and image metadata.

Embedded Solutions

. hardware/software enhancement for computer vision
. embedded system color processing and enhancement

Onsite Proceedings Due Dates:
NEW!! Extended Abstract (1000 words, up to 4 pages including preliminary results) Due
Date: 28 June 2010
Manuscript Due Date: 15 November 2010

Selected papers will be considered for a special issue/topic of an international journal

Major details can be found here