Poster Session

December 20 (Tue.)

18:00 - 20:00

P20-01 **Three-Dimensional Motion Picture of an Alum Crystal Sinking Down Recorded by Parallel-Phase-Shifting Digital Holographic Microscopy**

Takahito Fukuda[1], Peng Xia[2], Yasuhiro Awatsuji[1], Kenzo Nishio[1], Osamu Matoba[3]
[1]*Kyoto Institute of Technology,* [2]*AIST,* [3]*Kobe University*

P20-02 **Digital 3D holographic display with extended viewing angle and image size by active control of volume speckle fields**

Hyeonseung Yu, KyeoReh Lee, Jongchan Park, YongKeun Park
Korea Advanced Institute of Science and Technology

P20-03 **Object plane detection and phase imaging by transport of intensity equation with autofocus technique**

Koshi Komuro and Takanori Nomura
Wakayama University

P20-04 **A compact reference-free holographic image sensor**

KyeoReh Lee and YongKeun Park
Korea Advanced Institute of Science and Technology

P20-05 **Observation of Dynamic Droplets in Liquid by Parallel Phase-Shifting Digital Holographic Microscopy**

Tatsuya Hirakawa[1], Takahito Fukuda[1], Yasuhiro Awatsuji[1], Peng Xia[2], Kenzo Nishio[1], Osamu Matoba[3]
[1]*Kyoto Institute of Technology,* [2]*AIST,* [3]*Kobe University*

P20-06 **Suppression of the zero-order diffracted beam in digital off-axis holography with extended space bandwidth in horizontal direction**

Erkhembaatar Dashdavaa, Munkh-Uchral Erdenebat, Ki-Chul Kwon, and Nam Kim
Chungbuk National University

P20-07 **Portable digital holographic recording setup using general bricks**

Hibiki Kubo, Yasuhiro Harada, and Kenji Harada
Kitami Institute of Technology

P20-08 Wave Aberration Compensation in Digital Holographic Display

Minsik Park, Hyuneui Kim, Hyon-Gon Choo and Jinwoong Kim
Electronics and Telecommunications Research Institute

P20-09 Polarization Color Control Method Using Rotation of Polarizer

Toshiki Matsuzaki, Kyotaro Murakami, Kazuma Ebata and Kenji Harada
Kitami Institute of Technology

P20-10 Measuring and characterizing the color reproduction of 360-degree tabletop electronic holographic display

Jeho Nam, Keehoon Hong, Yongjun Lim, Hyon-Gon Choo, and Jinwoong Kim
Electronics and Telecommunications Research Institute

P20-11 Educational tools using projection mapping

Takafumi Tsuji and Kenji Harada
Kitami Institute of Technology

P20-12 Realization of an adaptive augmented reality display using a time-multiplexed lightfield method

Minyoung Park and Hee-Jin Choi
Sejong University

P20-13 Computer simulation of polarization colors of birefringent material sandwiched by two polarizers

Huangyi Qin and Kenji Harada
Kitami Institute of Technology

P20-14 A 5-inch augmented reality display using a find dot polarizer array with laser cutting process

Jaehee Seo, Minyoung Park, and Hee-Jin Choi
Sejong University

P20-15 Calculation and Fabrication of Photorealistic Hologram Using Orthographic Ray-Sampling Plane

Shunsuke Igarashi[1], Tomoya Nakamura[1,2], Kyoji Matsushima[3], and Masahiro Yamaguchi[1]
[1]*Tokyo Institute of Technology,* [2]*JST,* [3]*Kansai University*

P20-16 Research about the range of clear perception of an augment reality devices

Hanul Lee, Minyoung Park and Hee-Jin Choi
Sejong University

P20-17 Downsized Portable Digital Holographic Microscope on NVIDIA Jetson TK1

Daisuke Arai, Tomoyoshi Shimobaba, Marie Sano, Shin Abiru, Takashi Kakue and Tomoyoshi Ito
Chiba University

P20-18 Numerical analysis of extra high-order diffraction in multi-color computer-generated holograms combined with a color filter

Chi-Young Hwang, Yong-Hae Kim, Gi Heon Kim, Jong-Heon Yang, Jae-Eun Pi, Ji Hun Choi, and Chi-Sun Hwang
Electronics and Telecommunications Research Institute

P20-19 Resolution improvement of near-infrared image using visible phase image

Shohei Ishiguro and Yoshio Hayasaki
Utsunomiya University

P20-20 A new approach to acquisition of 360° three-dimensional information for a natural scene and to generation of electro-hologram content

Min Sung Yoon and Il Kwon Jeong
Electronics and Telecommunications Research Institute

P20-21 Observation of stained biological sample using wavelength scanning digital holography

Siti Nabilah Hassan[1], Misato Okamoto-Miyakawa[2], Yoshio Hayasaki[1]
[1]*Utsunomiya University,* [2]*Gifu University*

P20-22 Incoherent Fourier Digital Holography Using Two Rotational Shearing Interferometers for Three-step Phase-shifting Method

Kaho Watanabe[1,2], Takuya Matsuda[1], and Takanori Nomura[1]
[1]*Wakayama University,* [2]*Research Fellow of Japan Society for the Promotion of Science*

P20-23 Numerical Investigation of Measurement Characteristics of Through-focus Scanning Optical Microscopy(TSOM) measures under focused Gaussian beam illumination

Shin-Woong Park and Hwi Kim
Korea University

P20-24 Development of a Measurement System for Dynamic Visual Responses to Images of Electro-holography and Binocular Stereo Vision

Aya Nozaki[1], Fumio Okuyama[2], and Yuji Sakamoto[1]
[1]*Hokkaido University,* [2]*Suzuka University of Medical Science*

P20-25 Fast Calculation Method Considering Hidden Surface Removal for Computer-Generated Holograms using Geometric Sequence

Takuya Sugawara and Yuji Sakamoto
Hokkaido University

P20-26 Development of High Quality Holographic Grating for Head-Mounted Display Using Photopolymer

Hui-Ying Wu and Nam Kim
Chungbuk National University

P20-27 Improving Image Quality of Holographic Reconstruction System Using Integral Photography by Reconstructing Light Field

Yoji Shibuya[1,2], Yasuyuki Ichihashi[2], Kenji Yamamoto[2], Takashi Kakue[1], Tomoyoshi Shimobaba[1] and Tomoyoshi Ito[1]
[1]*Chiba University,* [2]*NICT*

P20-28 Real-Time Handling of Electro-Holographic Images by Gesture Detection

Shota Yamada, Takashi Kakue, Tomoyoshi Shimobaba and Tomoyoshi Ito
Chiba University

P20-29 Development of the high resolution spatial light modulator on glass substrate using oxide TFTs

Jae-Eun Pi, Jong-Heon Yang, Ji Hun Choi, Chi-Young Hwang, GiHeon Kim, Yong-Hae Kim, Kwan-Jung Oh, Hyon-Gon Choo, Jinwoong Kim and Chi-Sun Hwang
Electronics and Telecommunications Research Institute

P20-30 A Holographic Display method of Maximum Intensity Projection of Medical Image by Electro-holography

Zixiang Lu and Yuji Sakamoto
Hokkaido University

P20-31 Aerial Image Formed by Scattered Light with Edge-Lit Arc 3D

Kazuki Kawai and Hirotsugu Yamamoto
Utsunomiya University

P20-32 A study of the crosstalk reduction of lenticular type autostereoscopic display

Seon Kyu Yoon, Hwasun Lee, and Sung-Kyu Kim
Korea Institute of Science and Technology

P20-33 Single-shot, wide-field diffractive imaging with random illumination

Riki Egami, Ryoichi Horisaki, and Jun Tanida
Osaka University

P20-34 Omnidirectional Aerial Display with Aerial Imaging by Retro-Reflection (AIRR)

Sho Onose and Hirotsugu Yamamoto
Utsunomiya University

P20-35 Brightness enhanced see-through multi-view display using projection

Chanhyung Yoo, Jong-Young Hong, Dongyeon kim, and Byoungho Lee
Seoul National University

P20-36 Dynamic Range Improvement in Shack-HartmannWavefront Sensing Using Alternately Sorting Method

Yusuke Saita, Ayami Ito, and Takanori Nomura
Wakayama University

P20-37 Fabrication of Microstructure on Soda-lime Silicate Glass Using Corona Discharge

Daisuke Sakai[1], Manato Abe[1], Kenji Harada[1], Takashige Omatsu[2], Itsuki Yoshida[2], Takao Nishiura[3], Toshifumi Takemori[3], Junji Nishii[4], and Hiroyuki Shibata[1]
[1]Kitami Institute of Technology, [2]Chiba University, [3]Maruzen Petrochemical Co.,Ltd., [4]Hokkaido University

P20-38 Digital holographic stereogram based on the hogel structure

Sungjin Lim[1], Mugeon Kim[1], Hwi Kim[2], and Joonku Hahn[1]
[1]Kyungpook National University, [2]Korea University

P20-39 Holographic head mounted display based on exit-pupil expansion technique

Mugeon Kim, Sungjin Lim, Gensub Choi, and Joonku Hahn
Kyungpook National University

P20-40 Orthographic projection images based holography with wavelet function

Yan-Ling Piao, Le Thanh Bang and Nam Kim
Chungbuk National University

P20-41 Evaluations on Reconstruction Distance in Incoherent Digital Holography with a Diffraction Grating

Xiangyu Quan[1], Osamu Matoba[1], Yasuhiro Awatsuji[2]
[1]*Kobe University,* [2]*Kyoto Institute of Technology*

P20-42 Complex Monte Carlo ray tracing simulation in human skin

Youngjin Jeon and Hwi Kim
Korea University

P20-43 Uniform Light Distribution for Compound Parabolic Concentrator using Holographic Optical Element

Mehdi Askari and Jae-Hyeung Pa
Inha University

P20-44 View distribution analysis considering diffraction effect in multi-view display with slanted lenticular lens sheet

Sang-Hoo Kim and Jae-Hyeung Park
Inha University

P20-45 See-through full-parallax 3D head mounted display using waveguide and holographic optical element

Seong-Bok Kim and Jae-Hyeung Park
Inha University

P20-46 Integrating compound-eye image under coaxial illumination for analyzing gloss on handwritten strokes

Yoshinori Akao
National Research Institute of Police Science

P20-47 Speed enhancement of projection matrix update in vision correcting display

Kwang-Soo Shin and Jae-Hyeung Park
Inha University

P20-48 Design of diffractive filter for 360-degree table top electronic holographic display system

Soobin Kim and Hwi Kim
Korea University

P20-49 Representation of full color high-definition computer-generated holograms

Sungjae Park and Hwi Kim
Korea University

P20-50 Depth-fused effect in multiple layered 3D display using a DMD

Hogil Baek, Junkyu Yim, Sungwon Choi, and Sung-Wook Min
Kyung Hee University

P20-51 Design comparison between two planar lightwave circuits for a digital holographic microscope

Kanami Ikeda[1], Natsumi Hara[1], Katsunari Okamoto[2] and Eriko Watanabe[1]
[1]*The University of Electro-Communications,* [2]*Okamoto laboratory*