

Realistic Media Lab

Keywords

realistic media, convergence of science, engineering, and society, human factors

Chief



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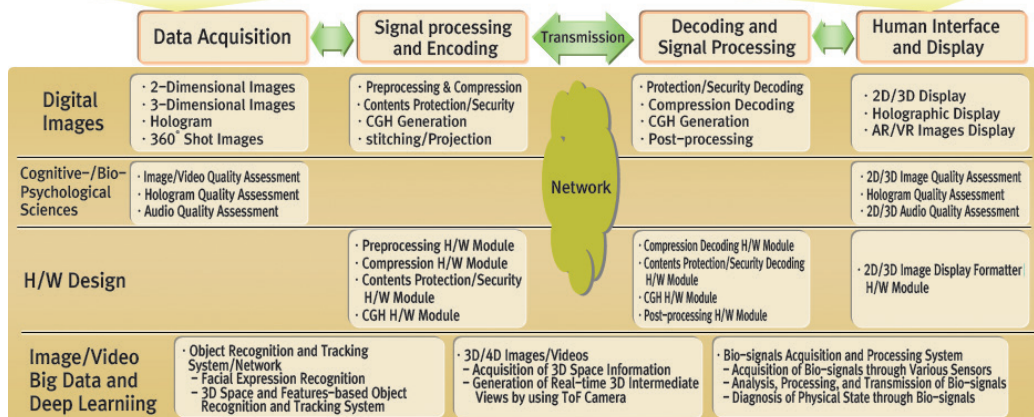
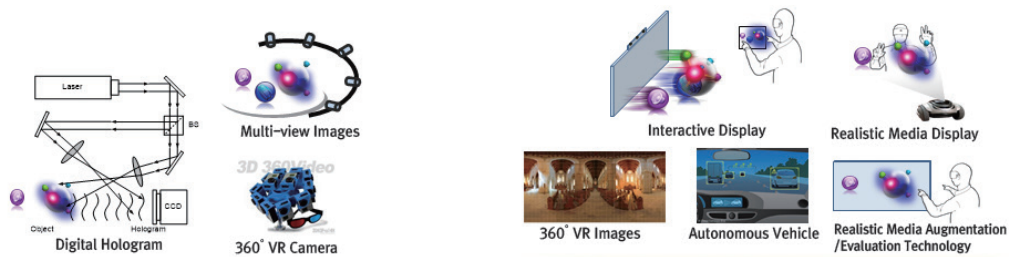
Members

Position	Division	Name	Specialties	e-mail
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Current Projects

1. Fields of Research

- Fabrication of Future oriented 2D/3D/4D AR/VR Image/Video Contents
- Protection and Securing of Intellectual Property Rights of 2D/3D AR/VR Image/Video Contents
- Object Recognition and Tracking in Images/Videos with Big Data and Deep Learning Technology
- Design and Implementation of Digital H/W or Fast Data Processing
- Realistic Augmentation of 2D/3D/4D AR/VR Images/Videos and Convergence Studies for Researches on Human Factors



Fields of Research



2. Research Activities

- Securing of Original Technologies and Intellectual Property Rights of Realistic Media/Contents and Service Technologies.
- Development of IT, CoT, CuT, NT and HT Converging to Fields of Engineering, Physical Science, Humanities, Social Science, Art, and Athletics.
- Conducting Government-contributed Realistic Media Research Projects.
- Conducting Industry-Academia Cooperative Studies on Realistic Media with Domestic and Overseas Schools, Enterprises, and Research Institutions

Patents

- Method of Creating Stereoscopic Images of Arbitrary Point of Views and Disparities from Digital Hologram, 10-1598614, 2016.02.23
- Method of Fresnel Diffraction based Watermarking of Hologram, 10-1588858, 2016. 01. 20
- Method of Watermarking for the Depth and Texture Images based 3-dimensional Images, 10-1580987, 2015. 12. 22
- The Template Matching based High Speed Face Tracking Method using Depth Information, 10-1534776, 2015.07.01.
- The High Speed Computer Created Hologram Generation Device, 10-1489823, 2015.01.29.
- Parallel Stereo Matching Computation Unit for the High Performance Stereo Matching Computation, 10-1460699, 2014.11.05.
- High Performance Digital Hologram Encryption Circuit Unit for the Security of Digital Holograms, 10-1440562, 2014.09.04.

Current Projects

- Development of Digital water marking Technology for Ultra High Value Added Images/Video Contents by considering the High Efficiency Data Compression into account (2nd year), 2014, National Research Foundation of Korea
- Development of water marking technology and SoC IP for the Multi-viewpoint based 3D Contents (5th year), 2014, National Research Foundation of Korea
- A Study on the Implementation of Information Design of e-Learning Contents using Hologram (3rd year), 2014, National Research Foundation of Korea
- A Study on the Basic Technology of High Performance Parallel Computing and System for High Definition Digital Color Hologram (1st year), 2014, National Research Foundation of Korea
- The Fabrication of Depth-map Quantization Module, 2014, Korea Electronics Technology Institute (KETI)
- The Implementation of Multi-Camera based Non-planar Screen Calibration SW, 2014, Electronics and Telecommunications Research Institute
- A Study on the User Experience with the Application of Smart Mirror based Service design, 2014, National Research Foundation of Korea
- A Study for the Preparation of Effective Promotion and System thereof for the raise of the Public Awareness of Scientific Policies of Ministry of Science, ICT and Future Planning, 2014, Ministry of Science, ICT and Future Planning
- A Study on the Core Technology of Scalable 3D Video Codec based on Cognitive Quality, 2014, Korea Advanced Institute of Science and Technology
- A Study on the Behavior of Consumption and Distribution Policy of VOD Service of Ground Radio wave Broadcasting Contents at Charged Platforms, 2014, Foundation for Broadcast Culture
- The Development of Interactive Scan Technology of 24-Frames/Second for Participative Contents of Children, 2014, Ministry of Culture, Sports and Tourism
- The Development of Pedestrian Detection Technology for the Automatic Braking System, 2014, SK Hynix
- The Fabrication of the SW for the Creation of 3D Image added Data and Conversion of the Format, 2014, Electronics and Telecommunications Research Institute

Publications

- A new parallel hardware architecture for high-performance stereo matching calculation, 2015, Integration, the VLSI journal
- High-performance computer-generated hologram by optimized implementation of parallel GPGPUs, 2015, J. of Optical Society of Korea
- Digital Watermarking Algorithm for Multiview Images Generated by Three-Dimension Warping, 2015, JICCE
- Poly-Cauchy numbers and polynomials of the second kind with umbral calculus viewpoint, 2014, Advances in Difference Equations