

Table of Contents

Pulmonary Nodule Segmentation by using 3D Deformable Model in CT Images	1
<i>Ji-Seok Yoon, Tae-Sun Choi</i>	
A CMOS Analog Baseband for a 5GHz WLAN Direct-Conversion Receiver	5
<i>Mi-young Lee, Young-Hun Lee</i>	
Enhanced Self-Organization Clustering in Mobile Wireless Sensor Networks....	10
<i>Sun-Young Park</i>	
Causal Order Multicast Protocol Using Different Information from Brokers to Subscribers.....	15
<i>Chayoung Kim, Jinho Ahn</i>	
Single-switch LED Driver with the Function of Power Factor Correction	20
<i>Geun-Yong Park, Gang-Youl Jeong</i>	
Efficient IO and Layout Management Issue of Filesystem for Flash device.....	24
<i>Seung-Ho Lim</i>	
Developing Intelligent Surveillance System.....	28
<i>Byung Joo Kim</i>	
Similar User Clustering based on MovieLens Data Set.....	32
<i>Haesung Lee, Joonhee Kwon</i>	
The effect of the 3-step health education and tele-coaching program for the disabled people with hypertension in rural region	36
<i>Hyunli Kim, Soeun Park, Kyungok Ju, Myungsuk Lee, Misook, Jung</i>	
Review on Present Situations of Big data.....	42
<i>Byung-Tae Chun, Seong-Hoon Lee</i>	
Android App for Smooth Multimedia Recording Service via the Frame Buffer.....	46
<i>Sang-Min Seo, Hyeon seok Oh, Yoon-Ho Choi</i>	
Applications of Hamming Codes to Public Safety Mobile Communication Systems	52
<i>Jehun Lim, Junho Lee, Minsu Shin, Young Joon Song</i>	

A Study on the Provide Method of Personalized Farming Information Using Public Data.....	56
<i>Sungwook Yoon, Mansung Jung, Hyenki Kim</i>	
Design of Service Architecture for Hierarchical UHD Broadcasting over Heterogeneous Networks.....	60
<i>Yejin Sohn, Minju Cho, Dahae Kim, Jong-Ho Paik</i>	
Strokes Separation from Hand Motion Trajectories	64
<i>Sungyoung Kim, Jeongjin Cheon</i>	
Three-Level Boost Converter Design for High Efficiency Photovoltaic Power Conditioning System.....	68
<i>Jinsoo Kim, Oh Yang</i>	
Employing Working Set Model for the Content Store in Content-Centric Network	73
<i>Seung-Seok Kang, Longzhe Han, Matt W. Mutka</i>	
Cloud Robot with Real-Time Face Recognition Ability	77
<i>Shuqing Tian, Dilshat Saitov, Suk Gyu Lee</i>	
Real time synchronization for a small group of wireless sensor network system implemented with a DSP	81
<i>JunJung, Jeong Bae Cho, Chol Hee Kwon, Sang Myung Lee</i>	
Design of UI Engine for appropriately Displaying Hierarchical coded Video Services.....	86
<i>Sun-young Hong, Seul-ki Song, Dae-kil(Chris) Kim, Jong-ho Paik</i>	
Design and Evaluation of Service Signaling Structure based on MMT for Terrestrial UHD Broadcasting Systems.....	90
<i>Min-Jae Seo, Kyung-A Yu, Jong-Ho Paik</i>	
A Study on Effective Digital Watermarking Method Suitable for QR code	94
<i>Dae-Jea Cho</i>	
Home Safety Sensor and Actuator Platform Design based on MPEG-V	98
<i>Jinhee Park, Jinwook Chung</i>	
Study on Search Algorithm for Finding An Efficient Service-Chaining Path....	102
<i>Hyeonseok Oh, Daeun Yu, Yoon-Ho Choi, Namgi Kim</i>	

Partial Caching Scheme for Streaming Multimedia Data in Ad-hoc Network...	106
<i>Backhyun Kim, Iksoo Kim</i>	
Video Service using Smart AP and GPS in Vehicle Network.....	111
<i>Seongchun Han, Iksoo Kim</i>	
Coordinated Control of PSS and FACTS Devices to Improve Power System Stability	115
<i>Seung-Mook Baek</i>	
Implementation of Fabric-Type Flexible Platform based Complex Bio-signal Monitoring System for Situational Awareness and Accident Prevention in Special Working Environments.....	119
<i>Ki-Man Jeon, Kwang-Cheol Ko, Hyun-Min Lee, Chae-Young Lim, HyunWoo Kim, Young-Hwan Kim</i>	
Cluster Head Selection Based On Hop Count in a Wireless Sensor Networks	124
<i>EunHwa Kim</i>	
Clinical Narratives Context Categorization: The Clinician Approach using RapidMiner.....	128
<i>Osama Mohammed, Sabah Mohammed, Jinan Fiaidhi, Simon Fong, Tia-hoon Kim</i>	
Remote Monitoring Service Robot Platform for an Intelligent Surveillance System.....	139
<i>Yong-Ho Seo</i>	
Design of an English Vocabulary Training App Using Google Cloud Messaging Service	143
<i>Ki-Hoon Kim, Gu-Min Jeong</i>	
Development of a Speed Reading Application to Improve Reading Skill using Android	147
<i>Jae-Hyung Park, Chang-Woo Park, Gu-Min Jeong</i>	
Development of a Cell-Bot Application for Teaching Children Using Android.....	151
<i>Mi-Young Jeon, Ji-Hoon Jeong, Gu-Min Jeong</i>	
Multiple Dynamic Stepping Process Architecture in Wearable Bio-sensing Data Systems	155
<i>Tae-Gyu Lee, Myung-Sook Ko, Seong-Hoon Lee</i>	

Information Technology Plan 2013 of Korea University	159
<i>Tae-Yong Shim, Il-Jun Choi, and Jin Kim, Young-Hun Lee</i>	
Production Volume Effect on Daily Wholesale Price of Stored Apple for Shipment Timing Decision-Making Support System	164
<i>Youngsik Kwak, Yoonjung Nam, Yoonsik Kwak</i>	
A Study on the Real-Time Measurement of Temperature and Humidity Based on Sensor tags	169
<i>Youngsik Kwak, Doejin Choi, Insoo Bae, Bosung Kim, Yunsu Lee, Jeongil Moon, Yoonsik Kwak</i>	
A Study on the Wireless Sensor Network System to Monitor Yields of Agriculture Products	172
<i>Yoonsik Kwak, Youngsik Kwak, Heejong Shin, BonGen Gu, Byungju Lee, Seokil Song</i>	
Outage Probability Evaluation for ADF Relay Systems with Burst Transmission Over Quasi-Static INID Rayleigh Fading channels	176
<i>Chungha Bong, Gilwon Seo, Min Bak, Kyunbyoung Ko</i>	
Authentication Techniques for Privacy Protection in N-Device Environment...	180
<i>Si-Jung Kim, Byong-Kwon, Lee, Sohyun Sim, An Na Kang</i>	
A Design of an Intelligent Learning Agent using Learner's environment Information	184
<i>JinIl Kim</i>	
Android Sensor Signal Processing using Acceleration Sensor for Smart Phone	188
<i>Young Jae Lee</i>	
Multi-band Planar Inverted-F Antenna for Mobile Communication Applications	192
<i>O.Bayarmaa, Kab-ki Kim, Young-Hun Lee</i>	
A Study on Development of Azimuth Angle Tracking Algorithm for Tracking-type Floating Photovoltaic System.....	197
<i>Young-Kwan Choi, In-Soo Kim, Sung-Taek Hong, Heung-ho Lee</i>	
An Embedding Method of Dynamic Educational Content through Big Data Analytics	203
<i>Seong-Yeon Ju, Min-Ho Song, Ga-Ae Ryu, Mihye Kim, Kwan-Hee Yoo</i>	

Linear-Time Algorithms for Finding Constant Visible Candidate Edges in a Polygon with Holes.....	207
<i>Jong-Sung Ha and Kwan-Hee Yoo</i>	
Development of multi-sensory service system: focusing on the design of visual and auditory stimuli.....	211
<i>In-chan Park, Go-eun Kim, A-ri Ha, Young-sam Min</i>	
A Simulation System including Emotional Evaluation	215
<i>In-chan Park, Hyeoung-Seoun Hur, Song-yi Kim, A-ri Ha, Eun-hey Kang, So-ra Kim, Bo-ri Choi, Che-lin Lim, So-yeon Yoon, Ji-hyun Lee, Nam-choon Park, Young-choong Park, Young-sam Min</i>	
Mapping Method for Hybrid Storage to Enhance Storage Utilization of SSD...219	
<i>In-Soo Bae, Yun-Su Lee, Seung-Kook Cheong, Yunsik Kwak, Seokil Song</i>	
Public Opinion Mining on Social Media: A Case Study of Twitter Opinion on Nuclear Power	224
<i>DongSung Kim, Jong Woo Kim</i>	
The Virtual Experience System with Emotional State Measurementfor UX(User eXperience) Profiling.....	229
<i>Jonghwa Kim, Songyi Kim, Byoungha Park, Youngchoong Park, Kwang-Mo Jung, Seong-Dong Kim</i>	
A Study on SURF Algorithm and Real-Time Tracking Objects Using Optical Flow	233
<i>Giwoo Kim, Hye-Youn Lim, Dae-Seong Kang</i>	
Development of Weather Condition Observation System for Wind Turbine Based on Integrated Sensor Module Gateway.....	238
<i>Ming-Shou An, Dae-Seong Kang</i>	
State-of-charge stream processing for electric vehicles.....	242
<i>Junghoon Lee, Dongwook Lee, and Gyung-Leen Park</i>	
Development of an electric vehicle helper application for emergency rescue....	246
<i>Hyobin Kim, Gyung-Leen Park, Junghoon Lee</i>	
Meet-in-the-middle Attack on the 6-round Variant of the Block Cipher PRINCE	250
<i>Yasutaka Igarashi, Toshinobu Kaneko, Satoshi Setoguchi, Seiji Fukushima, Tomohiro Hachino</i>	

An Improved Transmission Rate Achievement in Cooperative Communication System Based on OFDM.....	256
<i>Dong-Hyun Ha, Ki-Ro Kim, Hyoung-Kyu song</i>	
An Improved Transmission Scheme with a Relay from an Extra Source in Cooperative Communications System.....	260
<i>Bit-Na Kwon, Hyun-Jun Shin, Hyoung-Kyu Song</i>	
Efficient QRD-M Detection in the MIMO-OFDM System.....	264
<i>Chang-Bin Ha, Hwan-Jun Choi, Hyoung-Kyu Song</i>	
Low Complexity QRD-S Using Channel State Information in MIMO-OFDM System	268
<i>Su-Hyun Jung, Jae-Jeong Kim, Hyoung-Kyu Song</i>	
A Cooperative STBC Scheme Based on Superposition Modulation in Wireless Communication.....	272
<i>Yeong-Seop Ahn, Sung-Bok Choi, and Hyoung-Kyu Song</i>	
Comparison of Open Source Cloud System for Small and Medium Sized Enterprises	276
<i>Yasuo Uchida, Seigo Matsuno, Makoto Sakamoto</i>	
A study on probabilistic stranding warning for maritime safety control system.....	283
<i>DaeHee Seo, ByungGil Lee, JangMi Baek</i>	
Establishment of the Local Pop Music Archive Online System	289
<i>Kyeol Park, Jae Yeong Lee</i>	
Analysis of S&T information seeking behaviors and policy directions for national S&T information service center in Korea	294
<i>Eun Jin Kim, Yong Ho Lee</i>	
Food Storytelling of Gangwon Province, Korea	300
<i>Yun-won Lee, Jae-Yeong Lee</i>	
The Role and Responsibility of Cyber Intelligence in Cyber Warfare	305
<i>Jae-Hyun Shin, Sang-Pil Cheon, Jung-ho Eom</i>	
Introducing an IPTV Platform Design.....	309
<i>Jaegel Yim, Gyeyoung Lee</i>	

A Proposal for a Smart Internet Television Application.....	313
<i>Jaegool Yim, Gyeyoung Lee, Taekyung Lee, Junri Jeon</i>	
Optimized ERP System Deployment on Mobile Cloud Computing with AOM	317
<i>Yvette E. Gelogo, Haeng-Kon Kim</i>	
Structure Based Enterprise Mobility for Mobile Device Applications for AHMS	324
<i>Regin Joy Conejar, Haeng-Kon Kim</i>	
NFC based Livestock Traceability Management System	329
<i>Byeongbeom Kang, Hyun Yoe</i>	
Design and Implementation of the IT based Hog Breeding Management Application	337
<i>Hoseok Jeong, Meonghun Lee, Jeonghwan Hwang, Hyun Yoe</i>	
Sow culling decision-making support system using machine learning model ...	346
<i>Hansol Park, Meonghun Lee, Hyun Yoe</i>	
Livestock Disease Counseling System using Android Smartphone	353
<i>Jeonghwan Hwang, Hoseok Jeong, Hyun Yoe</i>	
A System to Modify True or False Question Using Exchanging terminologies for Antonyms and Relocating Randomly	360
<i>Jae-Young Lee, Ju-Seong Eom, Jae-Ho Shin, Jun-Won Park, Jae-Young Kim</i>	