# Table of Contents

**IT Convergence -based Research**

Research of User-eXperience(UX) Design for an Android Application ................................................. 1

Eun Jegal, Doo-Hyun Choi

Palm Lines Extraction on a High Resolution Image using Mosaic-like Method ........................................... 9

Ji-Hun Lee, Doo-Hyun Choi

A study of utilizing key components in game trailer production - Focusing on production case of trailer "Thanatos" - ................................................................................................................... 19

HaiTao Jiang, TaeSoo Yun, ByungChun Lee, JeongGi Lee

An Algorithm for Generating Suitable Accompaniment in Score-writers .................................................. 31

Yong-Wook Nam, Yong-Hyuk Kim

Development of an IoT System Based on the oneM2M Communication Protocol ...................................... 41

Kee-Hyun Park, Jong-Hwi Lee, Min-Woo Woo, Joon-Suu Park

Physiological signal extraction based liveness detection method for face recognition system

........................................................................................................................................................................... 51

Kun-Ha Suh, Eui-Chul Lee

Effective Frequent Subgraph Extraction applying the Weighted Graph in Big Data .................................. 61

Jung-Gil Cho

Study on Countermeasures and Security Vulnerability of Fintech Services .............................................. 71

Moon-sung Hwang, Yong-Hee Lee, Jung-Ah Shim, Keun-Heiu Kim

Smart Grid Privacy Protection Measures According to the Change of IT Paradigm .................................. 81

Dong-hyeok Lee, Nam-je Park

The Stock Trading Model Using Social Big Data Analysis ........................................................................... 91

SungHwan Song, SeonHo Hwang, YongHee Lee, Hyeon-Kyung Lee, Kyeong-Soek Han, Jong-Bae Kim

Game Designer Friendly Game Engine ........................................................................................................ 101

Sun-Myung Hwang , Jeong-Seop Kim

Education for Boat Operator’s License Test using Tangible Simulator and Smart Evaluation
Healthcare-based Research

Trend of Clinical Health Research by Analysis of the Published Paper in Journal of Korean Clinical Health Science ................................................................. 133

Mi-Ryon Lee

Relationship among Peer Attachment, Ego-resiliency and mobile phone dependence of Community children's center for children ......................................................... 145

Young-Chun Kim

Factors to Depression of Community dwelling Elderly ......................................................... 159

Song-Heun Lee, Young-Ju Ju

The Influence of the Level of Leisure Activity Participation and Satisfaction of Parents of Disabled Children on Self-Worth ............................................................. 169

Gi-sun kim, Sung-je Cho

Relevance of Oral Health Knowledge and Practice in accordance with Consciousness of oral health of Occupational Health Nurses ................................................................. 179

Kyung-Mi Kim, Gyu-Yil Choi

A Study of factors influencing on Children's Social Distance towards Children from Multicultural families ................................................................. 191

In-Sung-Youn, Sun-Young-Park

Welfare-based Research

A Study on revitalization of Jeju Rural villages through community design by Migrants ...... 203

Yong-Kyu Yi, Myung-Houn Jang

Seeking Direction of Regional Employment Strategy ............................................................. 213

Mi-Ran Bong, Young-Min Lee

A Study on Job Mobility of Korean Baby Boomer ................................................................. 223

Jung-yeon Lim, Young-min Lee
Effect of the Cognitive Enhancement Anti-Aging Program for Community-Dwelling Elders .......................................................................................................................................................................................... 231

Yeon-Ywa Kim, Hee-Jung Jang

Relationship Analyses among High School Students’ Educational Program Understanding, Abstract Thinking Ability, and Programming Language Experience – Focusing on RUR–PLE ........................................................................................................................................................................ 241

Chan Jung Park, Jung Suk Hyun, Sang Mi Kim

Education-based Research

In Search of Strategy of Knowledge Integration based on Narrative .................................................................................................................................................................................. 251

Hyeon-Suk Kang, Ho-Jae Jeon

A Study on Current Status and Improvement Plans of Educational Serious Game for Elementary School Students ........................................................................................................................................................................ 263

Ye-Sun Bae, Woo-Chun Jun

Development of an Education Program for Elementary Gifted Children in IT based on Greenfoot Programming Tool ........................................................................................................................................................................ 273

Jeong-Su Choi, Woo-Chun Jun

Problems of Tylerian Curriculum Development for Parents Education ........................................................................................................................................................................ 281

Yang-Sook Kil

Evaluation Model Based on Machine Learning for Optimal O2O Services Layout(Placement) in Exhibition-space ........................................................................................................................................................................ 291

Joon-Yeop Lee, Yong-Hyuk Kim

The search of plan for collaborative learning promotion in school ........................................................................................................................................................................ 301

Moo-Jeong Kim

The Development of Convergence Curriculum in Technical College Using 3D Printing Based on National Competency Standards ........................................................................................................................................................................ 311

Jong-Wook Kim, Jin-Ok Kim, Jinsoo Kim

Effects of Fall Education Program Using Tablet PCs: Hospitalized Patients ........................................................................................................................................................................ 323

So-Yeoun Kim, Jung-Ae Kim, Go-Woon Kim, Ah-Reum Lee, Hana Lee, Young-Sine Choi, Young-Sun Park

Perceptions of pre-service Early Childhood Teachers on ADHD through Metaphor Analysis ........................................................................................................................................................................ 333
Hee-Seon Koh, Yu-Jin Kang
Experience of Becoming Play Therapist in Early Childhood Education Majors .................................. 349
Eun-Ha Lee, Hee-Seon Koh
Analysis of Information Disclosure System of Higher Education .................................................. 363
Eun-Joo Oh
Analysis of Core teaching competency model for Lifelong education lecturer ........................... 373
Kyung-Hee Park, Sang-Hoon Han

Machine and Material-based Research
Counting Harmful Aquatic Organisms in Ballast Water through Image Processing .................. 383
Ji-Hun Ha, Hyo-Hyuk Im, Yong-Hyuk Kim

History-based Research
A Study on the history of Bong-Whang and Ginkkoridak(a long-tailed cock) .......................... 393
Yang-Mee Jee
An Study on the changing process of ethnic identity of the Korean-Chinese in South Korea
.......................................................................................................................................................... 403
Hai-Ying Huang, Jia Chen

Architecture and Civil Engineering-based Research
Time Management Status of Small Contractors and Suggestions on Education for Time
Management in Colleges ................................................................................................................. 413
Myung-Houn Jang, Yong-Kyu Yi

Electronics and Material-based Research
Effects of Service Recovery Justice on the Post-recovery Satisfaction and Loyalty: Focused on
the Family Restaurant .................................................................................................................. 423
Inhwan Yoon, Chul-Ho Jung
The Factors of Maintenance Termination for ERP Package ..................................................... 433
Park, Jeong Keun, ChanHyung, Lee, Ohjun, Yoon, Se-Jeo

Culture Content-based Research
Augmented Reality based IT Service for Film-related Travel Industry ........................................443
Suk-Ho Lee

The Comic Hero in As I Lay Dying ....................................................................................................451
Dong-Jee Keum

Safety and Security-based Research

Analyses of Requirement of Security based on Gateway Architecture for Secure Internet of Things .................................................................................................................................461
Jung Tae Kim