

## The Korea Academic Society of Digital Business Administration (KASDBA)

(사)한국디지털경영학회

# ICIDB-2016 Conference Program



International Conference on Information and Communication Technology and Digital Convergence Business (ICIDB-2016)

Chung-Ang University, Seoul, South Korea, Dec 16-17, 2016

■ Date: Friday and Saturday, December 16-17, 2016 10:00am -

5:30 pm

■ Place: International Conference Hall (4th Floor), Graduate

School Building, Chung-Ang University, Dongjak-gu,

Seoul, South Korea

■ Organizer:



The Korea Academic Society of Digital Business Administration (KASDBA) (사)한국디지털경영학회

■ Co-organizer:



Korea Institute of Digital Convergence (KIDICO)

Social Science Research Institute, Yeungnam University

■ Sponsors: NIA 한국정보화진흥원

National Information Society Agency



### Contents

	Keynote Speech
	Korea's ICT Policy
	2. Enterprise Digital Transformation
I	Presentation Session 1-1: Digital Technology
	Design and Standardization of Metadata Information For Content     Delivery Scheduling Used For Digital Signage Service
	Hairpin Resonator Bandpass Filter for Cognition Radio System     Applications
	3. SIR Based Symmetric Hairpin Bandstop Filter
	4. Design of An Information System-Based Internal Control Framework ····· 43  I Yongpyo Kim, Jaesoo Yang, Seongsoo Cho
	5. Advanced Metering Infrastructure IoT Service in DTV Channel 45  I Chang Hyung Kim, Kyoung Yoon Jeong, Chae-Bong Sohn
	6. Restful API for Controlling Overlay Resources in Managed P2P Network
	■ Wook Hyun, ShinGak Kang, Juyoung Park

Pı	resentation Session 1-2 Digital Information
1.	Dynamic Allocation Of Contents Servers for Peer-to-Peer Real-Time  Streaming
	■ Sung Hei Kim, Wook Hyun
2.	Extended Advanced Zonal Rectangular LEACH (EAZR-LEACH) for Wireless Sensors Networks
3.	Implementation of Dynamic Resource Allocation in Managed P2P 63  I Yeonwoo Nam, Changkyu Lee, Shin-Gak Kang
4.	Channel Capacity Improvement by Spectrum Reuse and Multiple Antenna Reception in Advanced Metering Infrastructure Network
5.	Congestion Control Strategy in NDN-RIOT-OS Powered IoTs
6.	The Diffusion of Innovation Of Internet of Things Technology in Korea:  A Case Study For Technology Adaptation Analysis Using Moor's Model · 83  Rashid Ali, Noor Hassan, Byung-Seo Kim, Sung Won Kim
Pı	resentation Session 1-3: Digital Convergence
1.	A Framework for an Efficient Destruction of Personal Information 87  • A-Young Cho, Myungsin Chae
2.	Geolocation-based 'Daily Specials' Application for Consumers
3.	Ambidextrous Strategy for Innovation Cluster - Focused on Technological Exploration and Exploitation in Korea95  • Won-II Lee
4.	Functional Entity and Related Information for Smart Greenhouse 117

**I** MiYoung Huh, JaeHong Min, JuYoung Park

	5.	What Factors Determine The Financing Decision of Non-Financial Firms In Pakistan?
		■ Maqbool Ahmad, Muhammad Yaqoob, Shoaib Imtiaz
	6.	Factors Affecting on the Successful Brand Extension of Lifebuoy 129  Shoaib Imtiaz, Jafar Ali, Changsu Kim
	P	oster Presentation Session
	1.	Radar Signal Recognition Using Direction of DPRI and Statistics of PRI
		Chang-Ho Lee, Tae-Kyung Sung
	2.	Electrocardiogram Noise Reduction Method Using Correlation Technique
		■ Bawul Kim, Myoungouk Park, Joonwoo Son
	3.	Comparisons of Gender Difference Between Self-Reported Road Safety Behavior and Actual On-Road Driving behavior
ı	P	resentation Session 2-1: Digital Innovation
	1.	A Compact Multi-Band Reconfigurable CPW-FED Slot Loop Antenna ···· 153  • Vu Van Yem
	2.	A Recommendation Mechanism Improving Diversity Using Spark Framework  : Considering Bandwagon Effect
	3.	Implementation of Multiple License Plates Recognition System using HD CCTVs
	4.	RIOT-OS: Operating System for Future IoTs

5	D. IoT Theoretical to Practical: Contiki-OS and Zolertia Re-Mote
6	5. Eliminating Doppler Shift in High Speed Rail Communications
	Presentation Session 2-2: Digital Management
1	. An Exploratory Research about Identifying Security Practices Based on Social Psychology Theory ————————————————————————————————————
2	2. Comparison between Impacts of Information Controls on Privacy Protective Behaviors of SNS users
3	B. A Study on a Convergence Business Portfolio ································ 207  ■ Hi-Yeob Joo
4	Impacts of Difference between Smartphone Usage Behaviors on Health Belief of Smartphone Users
5	5. A Growth Strategy of Smart Banking 217  I Suk-Hyun Kim
6	5. The Growth Strategies of Fin-Tech Business
7	7. A Study on Download Time of ECU Data According to the  Network Type

### The diffusion of innovation of Internet of Things technology in Korea: A case study for technology adaptation analysis using Moor's Model

Rashid Ali<sup>1</sup>, Noor Hassan<sup>2</sup>, Byung-Seo Kim<sup>3</sup> and Sung Won Kim<sup>\*1</sup>

<sup>1</sup>Department of Information and Communication Engineering, <sup>2</sup>Department of Business Administration, Yeungnam University, Republic of Korea <sup>3</sup>Department of Computer and Information Communication Engineering, Hongik University, Republic of Korea

#### **Abstract**

There is a great demand on adoption of 'Internet of Things' (IoT) in upcoming technologies. Studies show that IoT is more sensitive to be consumer's adaptive preciseness. It is because adapting new technologies is quite expensive and demands more intellectual attention of the users. This factor with others mostly causes consumers' intention to decide whether should be adapting to use them more effectively or should carry on with the existing technologies. Therefore, we need to make efforts to find main factors affecting adaption intention of expected IoT consumers to bring guidelines for technology developers. As consumer utilization of information systems and technology continues to grow, the ability of a consumer to retain valuable technology is likely to become critical factor in the attainment of strategic goals. This study investigates what kinds of factors affect consumer intention of IoT adaptation and finds the ways to increase technology acceptance specific to the IoT situation by developing a research model and testing it empirically. As a case study for the diffusion of IoT, the empirical data is collected from the consumers in Korea. The objective of this study is to understand factors affecting consumer intention of IoT acceptance and the mechanism of their effects on adaptation of IoT. For this objective, a causal model is developed on the basis of Moor's Technology Acceptance Model, in which perceived usefulness of IoT and ease of use of IoT are considered as major antecedents of consumers' intention of IoT acceptance.

Keywords and phrases: Internet of Things, Technology adaptation.

<sup>\*</sup> Corresponding Author (swon@yu.ac.kr)