

	<b>Part A</b> <b>: Communication Theory and Systems(통신이론 및 시스템)</b>		<b>Part B</b> <b>: Networks and Services (네트워크 및 서비스)</b>		<b>Part C</b> <b>: Convergence Technologies (융합기술)</b>
1	3D rendering and processing	1	Addressing and location management	1	3D Image convergence
2	AI powered wireless communications	2	AI and machine learning-enabled networks	2	Ambient intelligence
3	Analogue-to-digital/digital-to-analogue converters (ADC, DAC)	3	Big data and network data analytics	3	Applications for cloud computing/Mobile cloud computing
4	Antennas	4	Bio/nature-inspired networking	4	Applications of energy harvesting and wireless power transfer
5	Bio communications	5	Body area networks	5	AR/VR/MR application
6	Broadcasting	6	Capacity planning	6	Big data analysis
7	Channel coding	7	Cellular and broadband wireless networks	7	Blockchain application
8	Channel estimation	8	Cloud computing and data center	8	Brain-IT convergence
9	Channel modeling	9	Cognitive networks	9	Broadcasting and communications convergence
10	Code division multiple access (CDMA)	10	Communication reliability	10	City and transportation IT convergence
11	Coding theory	11	Congestion control	11	Context-awareness
12	Communication components and materials	12	Content distribution network (CDN)	12	Convergence of securities
13	Computational intelligence	13	Content-centric networks	13	Convergence software
14	Cooperative communications	14	Cross layer design and optimization	14	Crowdsourcing
15	Cryptography	15	Cyber-physical systems and networking	15	Digital twin convergence
16	Data storage	16	Delay/disruption tolerant networks	16	Energy-IT convergence
17	Detection and estimation	17	Distributed networks	17	Hybrid apps. (Incl. HTML5)
18	Diversity techniques	18	Dynamic spectrum management	18	Illumination-IT convergence
19	Dynamic spectrum access and cognitive radios	19	Edge and fog computing/networking	19	IoT convergence and services
20	Embedded systems	20	Embedded systems	20	IT for agricultures
21	EMI/EMC & SI/PI	21	Future Internet	21	IT for aviations
22	Energy harvesting and wireless power transfer	22	Green networks	22	IT for constructions
23	Equalization	23	Heterogeneous networks	23	IT for fabrics
24	Frequency converters	24	Implementation and experimental testbeds	24	IT for finances
25	Green communications	25	Internet of things (IoT)	25	IT for forestry
26	Image and video coding	26	Local area networks (LAN)	26	IT for livestock
27	Image signal processing	27	Location and context aware services	27	IT for military and defence
28	Information theory	28	Machine-to-Machine networking	28	IT for robots
29	Intelligent surfaces (RIS, LIS, IRS)	29	Medium access control	29	IT for safety
30	Intelligent/smart systems	30	Middleware support for networking	30	IT for ships
31	Interference management/analysis	31	mmWave and THz communication networks	31	IT for unmanned vehicles
32	Intermediate frequency (IF) systems	32	Mobile ad-hoc networks	32	IT for vehicles
33	Machine type communication	33	Mobile computing	33	IT-empowered systems and services
34	Massive connectivity	34	Mobility models and management	34	ITS/Telematics
35	Medical/bio signal processing	35	Molecular and nano communication networks	35	Location-based services (LBS)
36	Microwave/Millimeter-wave/Tera-Hertz communication	36	Multicast, broadcast and anycast	36	Marine-IT convergence

37	MIMO techniques	37	Multi-hop wireless networks	37	Mechanics-IT convergence
38	Modulations/demodulations	38	Multimedia networks	38	Medical and Bio-IT convergence
39	Molecular and nano communications	39	Multimedia services and applications	39	Multimedia entertainment
40	Multimedia communications	40	Network applications and services	40	Policy for convergence
41	Multiple access technologies	41	Network architectures	41	Profile-based services
42	Multi-user/multi-points transmission	42	Network coding	42	Smart home appliances
43	Nature/bio-inspired communication technologies	43	Network control	43	Smart services
44	New waveform	44	Network economics	44	Smartphone applications
45	Next generation WiFi	45	Network management	45	TV and multi-screen
46	Non-orthogonal multiple access (NOMA)	46	Network science	46	U-health (Smart care, smart living, u-health infrastructure, u-health applicatins)
47	OFDM(A)	47	Network security and privacy	47	Web applications and content distribution
48	Optical communications	48	Network simulation and emulation	48	Other topics in convergence technologies
49	Physical layer security	49	Network software		
50	Power control (전력 제어)	50	Network virtualization		
51	Power line communications	51	Optical networks		
52	Quantum computing and communiations	52	Peer-to-peer networks		
53	Radio frequency (RF) systems	53	Performance evaluation		
54	Radio propagation	54	Personal area networks		
55	Relay systems	55	Power control and management		
56	Resource allocation/management	56	Power line networking		
57	Sampling	57	Pricing, billing, and business model		
58	Signal processing	58	Quality of service/Quality of experience		
59	Smart antennas	59	Resource allocation and management		
60	Software defined radios	60	RFID networks and protocols		
61	Space/satellite communication	61	Routing and switching		
62	Space-time processing	62	Satellite and space communication networks		
63	Speech and acoustic signal processing	63	Scheduling and buffer management		
64	Spread spectrum	64	Self-organizing networks		
65	Sub-systems for information and communications	65	Sensor networks		
66	Synchronization	66	Service overlays		
67	UAV communications	67	Service platforms		
68	Underwater communications	68	Social computing and networks		
69	UWB communication systems	69	Software for communications		
70	Visual analysis and content management	70	Software-defined networking		
71	Wireless communications	71	Standardization activities		
72	Other topics in communication theory and systems	72	Time Sensitive Networking		
		73	Topology characterization and inference		

74	Traffic engineering and control
75	Traffic measurement and analysis
76	Ubiquitous/pervasive computing
77	Underwater networks
78	Unmanned areial/terrestrial networks
79	Vehicular networks
80	Virtual and overlay networks
81	Web services and performance
82	Wireless local area networks (WLAN, WiFi)
83	Wireless mesh networks
84	Other topics in networks and services