1. Method and apparatus for controlling temperature

Date: 2018-07-03 | ID: 10012406

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method for controlling temperature in a temperature controlling system is provided. The

method includes determining occupancy or non-occupancy of a user in a space subject to setback control;

when the user's non-occupancy is determined, determining whether to start the setback control based on

probability distribution of a non-occupancy period that are predetermined; when it is determined to start the

setback control, determining the user's target temperature based on previously collected data; calculating a

setback temperature based on the target temperature; and performing the setback control according to the

calculated setback temperature.

2. Dynamic differential diagnosis training and evaluation system and method for patient

condition determination

Date: 2018-07-17 | ID: 10026328

Abstract: A dynamic differential diagnosis training and evaluation system incorporates a beginner student

learning mode, a beginner student test mode, an advanced student learning mode, and an advanced student

test mode for training, nurturing, and evaluating dynamic differential diagnosis (dynamic DDx) reasoning skills

for patient condition determination. In a preferred embodiment of the invention, the dynamic differential

diagnosis training and evaluation system incorporates one or more computerized user interfaces for

displaying, choosing, and interacting with a simulated virtual patient, hypotheses selections for the patient

condition determination, simulated physical exam selections, simulated medical test selections, simulated

medical test results, a computerized expert's feedback and answers, and an iterative differential diagnosis

(DDx) list modification and refinement process that simulates real-life dynamic differential diagnosis (dynamic

DDx). Furthermore, the dynamic differential diagnosis training and evaluation system can also incorporate

healthcare education contents generated from a healthcare content authoring platform.

3. Method to deliver contextual educational information utilizing smart wearables

Date: 2018-07-17 | ID: 10026332

Abstract: Educational information is provided to a user associated with a trigger object, and an

education-related user attribute. Contemplated trigger objects include wearables, and especially pieces of

jewelry. Contemplated education-related user attributes include current age, gender, subject being studied,

current grade level, hobby, ethnicity, profession, vocation, location of interest, topic of interest, time period of

interest, event of interest, favorite sport, favorite team, current school, color preference, resource preference,

brand affinity, and expertise level. The educational information can be rendered directly on the trigger object,

or on any other electronic rendering device.

4. Method and apparatus for generating, transmitting and receiving signals based on filter

bank in wireless communication system

Date: 2018-07-17 | ID: 10027520

Abstract: The present disclosure relates to a communication method and system for converging a 5G

communication system for supporting higher data rates beyond a 4G system with a technology for IoT. The

present disclosure may be applied to intelligent services based on the 5G communication technology and the

IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health

care, digital education, smart retail, security and safety services. The present application discloses a method

and device for transmitting and receiving signals based on a filter bank. The device comprises: a CS-DFT

spreading unit for generating two data flows by applying a CS-DFT spreading operation to a first

complex-value data flow input thereto; a sub-carrier mapping unit for mapping each of the two data flows to

corresponding sub-carriers; and an OQAM modulator for generating OQAM signals by applying an OQAM

operation to the data flows mapped on sub-carriers.

5. Method and apparatus for estimating location in a terminal

Date: 2018-07-17 | ID: 10028089

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method and apparatus for estimating a location in a terminal are provided. The method

includes calculating locations of the terminal and a tag, calculating information about movement of the

terminal using a motion sensor, and correcting the calculated location of the tag based on information about

the movement of the terminal.

6. Product and presentation placement system and method

Date: 2018-07-24 | ID: 10032196

Abstract: Viewers of presentations of entertainment, news, education and other the like, often observe

unadvertised products of interest therein. However, in order to avoid degrading the artistic or objective

integrity, producers and distributors of such presentations, do not provide sufficient product description

information to permit the viewer to identify and/or purchase the product. The present invention describes

methods and systems for permitting such users to research and/or purchase products observed to be

involved in presentations by accessing presentation appearance data, product description data, and issuance

data prepared, stored and associated in a non-transitory computer-readable database.

7. Account sharing detection in online education

Date: 2018-07-24 | ID: 10033727

Abstract: An education application delivers educational content including videos and documents to any

computing device of a user via a student account. Each video or document is associated with a course and a

corresponding course code. A database lists those courses and course codes that are incompatible with one

another. A University database lists courses that a student is currently enrolled in. Course codes for

educational content delivered via a student account are compared to either database. Access by the student

account is blocked if any course codes for delivered content are incompatible with either database. Another

database records videos watched via a student account. If a threshold number of relatively long videos are

watched in a short time period then access by the student account is blocked. If a student account begins a

second video before the first is finished then access is blocked. Content is hidden if not relevant.

8. Method and apparatus for providing service in wireless network

Date: 2018-07-24 | ID: 10034261

Abstract: A technique for sensor network, Machine to Machine (M2M), Machine Type Communication (MTC),

Internet of Things (IoT) is provided. The present disclosure can be applied to intelligent services (smart

homes, smart buildings, smart cities, smart cars or connected cars, health care, digital education, retail,

security and safety service) based on the technique. A method for operating a user equipment (UE) is

provided. The method includes receiving a first signal comprising a first category identification (ID) and a first

unique ID from a first beacon device, determining a distance from the first beacon device based on the first

signal, if the distance is below a threshold, registering the first category ID, and if a second signal comprising

the registered first category ID from a second beacon device, displaying information corresponding to a

second unique ID of the second signal.

9. System for promoting travel education

Date: 2018-08-07 | ID: 10043412

Abstract: There is a system and method for promoting travel education including a toy having a particular

geographic association represented visually on the toy. The toy includes a unique identifier observable on the

toy and associated with the particular geographic association. The system includes a management module

configured to interact with the toy and thereby promote travel education. The management module includes a

user account management module associated with the unique identifier of the toy and configured to manage

a user account associated therewith and to receive location information in regards to the toy. The

management module includes a geographic rules module in communication with the user account

management module and configured to store, provide and enforce a set of rules on the user account based

on the particular geographic location of the toy associated with the user account.

10. Method and device for selective communication service in communication system

Date: 2018-08-07 | ID: 10045177

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A user equipment in a communication system, according to various embodiments of the

present disclosure, includes: a controller that determines at least one communication service to deactivate

among communication services that are able to be provided and a transmitter that transmits, to a server, a

message for identifying the at least one communication service to deactivate.

11. Job recall services in online education platforms

Date: 2018-08-14 | ID: 10049416

Abstract: An online education platform manages and integrates a number of education services for users of

the platform, including job recall services. These job recall services include management and distribution of

job recall materials that test whether job applicants have acquired desired knowledge or skills for a particular

job opening or class of jobs. The job recall materials are uploaded to the education platform and mapped to

one or more learning units. Each learning unit is associated with an educational course and includes a

distinct concept in the associated course. Responsive to a user of the education platform completing the

learning unit to which a job recall material is mapped, the job recall material is recommended to the user.

12. Automated educational system

Date: 2018-08-14 | ID: 10049593

Abstract: A method and system for providing computerized education may provide a user with a first set of

educational segments such as problem sets or presentations, and may further monitor the user's reactions

and responses using electronic devices, including biometric sensors, to identify difficulty points. Reports may

be generated and presented to the user or another party to assist in manual identification of the difficulty

point. New or modified educational segments may be provided to the user based on the identified difficulty

points.

13. Method and apparatus for transmitting and receiving data in communication system

Date: 2018-08-14 | ID: 10050881

Abstract: Disclosed is a technology for a sensor network, Machine to Machine (M2M), Machine Type

Communication (MTC), and Internet of Things (IoT). The present disclosure can be used for intelligent

services (for example, services related to smart homes, smart buildings, smart cities, smart cars, connected

cars, health care, digital education, retail businesses, security, and safety) based on the technology. A

method of transmitting data in a communication system includes: generating a hash value by applying a hash

function to original data; generating a message including at least one of the original data and the generated

hash value based on whether there is an existing hash value equal to the generated hash value; and

transmitting the message.

14. Method and apparatus for communicating using unlicensed bands in mobile

communication system

Date: 2018-08-14 | ID: 10051661

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4G system with a

technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on

the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart

city, smart car, connected car, health care, digital education, smart retail, security and safety services. A

method for performing communication using an unlicensed band includes reserving a channel of the

unlicensed band using a control frame supporting WLAN by a WLAN module, when reserving the channel of

the unlicensed band succeeds, determining whether the channel of the unlicensed band is used by a mobile

communication module, and transmitting data supporting the unlicensed band through the reserved channel

of the unlicensed band.

15. Advanced remotely operated vehicle for education and research

Date: 2018-08-28 | ID: 10059418

Abstract: Disclosed are watercrafts with rotatable air propulsion steering units and retractable measurement

instruments. The watercraft can include a substantially flat bottom, a top deck, a rotatable air propulsion

steering unit configured to propel the watercraft and to rotate in order to steer the watercraft when the

watercraft is submerged in a liquid body without requiring a submerged rudder steering system under the

substantially flat bottom. The watercraft can also include a retractable measurement deck configured to

alternatively raise measurement instruments above the liquid body and lower into the liquid body.

16. Education kit for open hardware

Date: 2018-08-28 | ID: 10062298

Abstract: An open hardware education kit is provided. The open hardware education kit comprises an

expansion board. The expansion board comprises a plurality of metal terminals joinable with a magnet, a

plurality of conductive connection wires respectively connected with the metal terminals, and a plurality of pin

headers respectively connected with the connection wires. The plurality of pin headers are joinable with an

expansion header of open hardware.

17. Method and apparatus for charging use of radio resources in wireless communication

system

Date: 2018-08-28 | ID: 10064034

Abstract: The present disclosure relates to a communication technique for combining a 5G communication

system that supports higher data transmission rates after 4G systems with IoT technology and to the system

therefor. The present disclosure can be applied for intelligent services based on 5G communication

technology and IoT related technology (for example, smart homes, smart buildings, smart cities, smart cars or

connected cars, healthcare, digital education, retail businesses, security and safety related services, and the

like). According to the present disclosure, a method for charging by a base station in a wireless

communication system comprises, upon sensing use of a resource by a device performing

machine-to-machine (M2M) communication using a resource allocated to the wireless communication system

based on a charging reference, gathering charging-related information about the sensed use of the resource

and transmitting the charging-related information or charging information to a higher entity.

18. Data storage and access platform with jurisdictional control

Date: 2018-09-04 | ID: 10068098

Abstract: There is disclosed a modular data storage and access platform with jurisdictional control. The

platform ensures alignment of jurisdictional compliance between a user, national laws, and associated data

through pre-scripted data channeling and handling during execution of application provider business services

and/or sharing and synchronizing data between approved parties, encapsulated though user defined

encryption technology, while ensuring physical and legal ownership and defined residency of user data with

solution enablement free of technical complexity or need of special education/training or need of information technology services. In an embodiment, the platform enables approved third party value added SaaS applications to manipulate data stored on the modular data storage without removing the data from the platform.

19. Method and apparatus for generating and reporting feedback information in mobile

communication system

Date: 2018-09-04 | ID: 10069550

Abstract: Disclosed are: a communication technique for fusing, with IoT technology, a 5G communication system for supporting a data transmission rate higher than that of a 4 G system and subsequent systems; and a system thereof. The present disclosure can be applied to an intelligent service (for example, smart home, smart building, smart city, smart car or connected car, health care, digital education, retail business, security and safety-related service and the like) based on 5G communication technology and IoT related technology. The present disclosure presents a method by which a base station determines the approximate location of a terminal on the basis of a reception power report, and sets a codebook subset on the basis of the approximate location of the terminal so as to reduce a channel state report burden.

20. Community moderated information

Date: 2018-09-25 | ID: 10083420

Abstract: According to one aspect, an approach is provided that assists in presenting the right information within the ecosystem. The approach involves associating information sources (ads, sponsored information, research requests, debate notices, seminars, education opportunities, peer generated information, etc) with a feedback mechanism. In one embodiment, the feedback mechanism includes a scoring feature, where individual participants within the ecosystem rate the relevancy and/or importance of the information provided. In one example, a user is notified that a potentially relevant information source is available. The notification is typically displayed unobtrusively within a browser or interface window that the user is navigating. In one implementation, the user must perform some affirmative action to reach information associated with the information opportunity. In one example, requiring an affirmative action serves as a shield from pop-ups, banner-ads, and other distracting form of advertising. It is also realized that allowing the user to select the information opportunity rather than display it immediately permits the user to decide explore the opportunity. In one example, permitting the user to decide to explore the opportunity increases the user's receptivity to the information opportunity. In one embodiment, information associated with the information opportunity is displayed in response to user selection. The information associated with the information opportunity

describes the information opportunity available. The user is provided with the opportunity to evaluate the

information opportunity without being required to visit it and/or review it in its entirety. The information

associated with the information opportunity may also be displayed with user feedback.

21. Method and system for collaborative learning

Date: 2018-09-25 | ID: 10083492

Abstract: A method for educating a patient through a collaborative network is provided. The patient is

authenticated with a username and a password. A request is received by a server for entry to a repository for

educational design activities. Each of educational design activities includes exemplar design configurations

and material lists and is configured to include photographs and written texts for other patients who have

completed the associated educational design activity. A hypertext document is transmitted to the client

computerwhich includes the education design activities. The hypertext document is configured to be

displayed through a browsing application on the client computer. A request is received by the server from the

client computer for access to a selected education design activity, and access is provided to a design engine

for the selected educational design activity. A design file created by the patient is then stored using the

design engine.

22. Doll companion integrating child self-directed execution of applications with cell phone

communication, education, entertainment, alert and monitoring systems

Date: 2018-10-02 | ID: 10086302

Abstract: The presented cell phone-enabled doll companion allows a child novel ways to self-select and

self-execute applications while requiring no intervention or supervision from the parent. Further, it provides

learning, entertainment and safety by integrating cell phone communication, education, entertainment, alert

and monitoring systems. While providing a convenient means of communication between the child and

parent, the system allows surveillance of a child's real-time environment, GPS monitoring and SIDS/health

monitoring. The functionality and the physical elements of the system are programmable through installation

of applications downloadable from an application store. Various options for parental access to a configuration

interface to modify settings and download applications are provided, including via a cell phone, a website,

customer service call center and/or the doll companion touch screen.

23. Situated simulation for training, education, and therapy

Date: 2018-10-02 | ID: 10089895

Abstract: Systems, methods, and other embodiments associated with producing an immersive training

content module (ITCM) are described. One example system includes a capture logic to acquire information

from which the ITCM may be produced. An ITCM may include a set of nodes, a set of measures, a logic to

control transitions between nodes during a training session, and a logic to establish values for measures

during the training sessions. Therefore, the example system may also include an assessment definition logic

to define a set of measures to be included in the ITCM and an interaction logic to define a set of interactions

to be included in the ITCM. The ITCM may be written to a computer-readable medium.

24. Dental education model

Date: 2018-10-09 | ID: 10096267

Abstract: The dental education model is a realistic model of a human jaw with removable teeth, including a

base plate and a substantially U-shaped member simulating a human gingiva. The substantially U-shaped

member has upper and lower surfaces, the lower surface being mounted on the base plate. The upper

surface has a plurality of recesses defined therein. A plurality of first magnetic connectors are embedded in

the substantially U-shaped member adjacent to closed ends of the plurality of recesses. A plurality of

simulated teeth have coronal and root portions. The root portions of the plurality of teeth are removably

received within the plurality of recesses formed in the substantially U-shaped member. A plurality of second

magnetic connectors are embedded in the root portions of the plurality of the teeth, such that the first and

second magnetic connectors are releasably magnetically attachable to one another.

25. Apparatus and method for power control, reporting and uplink transmission

Date: 2018-10-09 | ID: 10098075

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The present disclosure provides a power adjusting method and corresponding to control

node and UE. According to the present disclosure, interference to adjacent devices of the same or different

wireless access techniques may be avoided, uplink scheduling efficiency of the UE may be increased, and

therefore the efficiency of the whole network is increased.

26. Method and apparatus for adaptive beam hopping in multi cell multi user communication

system

Date: 2018-10-16 | ID: 10103800

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. Disclosed are a method and an apparatus for performing adaptive beam hopping in a multi-cell multi-user communication system. The method includes: making a request for allowing multiple accesses for beam hopping for a predetermined operation time to a plurality of accessible base stations (BSs); receiving a response to the request from two or more BSs among the plurality of BSs and determining, according to a predetermined reference, beams above the reference among transmission beams of the two or more BSs as available beams; determining a beam hopping pattern based on the determined available beams and transmitting the determined hopping pattern to the two or more BSs; and forming reception beams based on the determined beam hopping pattern to receive signals.

## 27. Method and apparatus for transmitting and receiving data using plurality of carriers in mobile communication system

Date: 2018-10-23 | ID: 10111257

Abstract: The present disclosure relates to converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT), and may be applied to intelligent services, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A method according to disclosed aspects includes receiving a first control message including a first random access response window for a first cell group, receiving a second control message for adding a second cell group, including information on a second random access response window size for the second cell group, transmitting, on a cell of the second cell group, a random access response based on the second random access response window size for the second cell group.

#### 28. Method for adaptive learning utilizing facial recognition

Date: 2018-10-30 | ID: 10115038

Abstract: A computer implemented method for significantly increasing the efficacy of computer adaptive learning (which currently measures and acts on a learner's performance in the cognitive or objective learning domain of education) by additionally detecting and identifying the learner's emotional response data and together with the cognitive data, optimizing the educational content being presented. These emotional

responses constitute the affective or emotional domain of education.

29. Reflexive education: a method for automated delivery of educational material linked to

objective or subjective data

Date: 2018-10-30 | ID: 10115482

Abstract: A health management system (10) comprises educational content sessions (150, 152, . . . ) each

being directed toward achieving a health management goal. A user interface (48) is configured for presenting

the content sessions (150, 152, . . . ). At least one feedback path (48, 82, 120, 122) provides at least one

input which includes an item of interest. A content flow engine (170) configured to automatically select the

content sessions (150, 152) based on the at least item of interest and on content flow rules and initiate

presentation of the selected content sessions via the user interface (48).

30. Method and apparatus for transmitting and receiving data

Date: 2018-10-30 | ID: 10116424

Abstract: Provided is a technology related to a sensor network, machine to machine (M2M), machine type

communication (MTC), and the Internet of things (IoT). Transmitting data between transceivers including

transmitting data segments of source data and parity data segments including restoration information for a

transceiver to restore the source data. The method is applicable to intelligent services based on the

technology (e.g., smart home services, smart building services, smart city services, smart or connected car

services, health care services, digital education services, retail business services, security and safety-related

services, etc.).

31. Collaborative, social online education and whiteboard techniques

Date: 2018-11-13 | ID: 10126927

Abstract: Various techniques are disclosed for facilitating a computer-supported collaborative session that

includes at least two participants using different computing devices to view a canvas that is configured to

contain objects added by one or more of the participants. The computer-supported collaborative session is

configured to permit participants to mark and/or edit selected objects presented on the canvas. Participants

may use a mobile device camera to capture images or video clips, and post the captured images or video

clips to the canvas by emailing or text messaging the captured image to a designated email address or phone

number.

32. Advanced transparent projection communication terminals

Date: 2018-11-13 | ID: 10129506

Abstract: Enterprise communication display systems enable life-like images for videoconferencing and entertainment productions. Life-like images appear in a 3D environment where imaged people are visible through specially configured see-through displays. Imaged people can be viewed amongst a reflected foreground. Methods for enterprise-wide deployments for corporate, healthcare, education, and government communications, including hotel properties and a property management system are shown. Direct projection see-through screen configurations are created that eliminate unwanted secondary images in the room, conceal exposed projector lenses, reduce lens flare, makes practical multi-use room installations, images conferees among a room environment, enables touch screen interactivity, and utilizes extreme short throw projectors to reduce cost and bulk of common throw projectors. Further, a multi-format VR/AR production system is disclosed enabling several formats to be created simultaneously. Further, a camera through a transparent OLED for eye contact videoconferencing is disclosed. Additionally, an imaged map projected interior environment that produces the rooms ambient light is disclosed.

#### 33. Method for selecting channel and an electronic device thereof

Date: 2018-11-13 | ID: 10129690

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC), Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. An electronic device, a method of an electronic device, and a method of a terminal apparatus are provided. The electronic device includes a first module configured to transmit/receive a signal through a first transmission interface, a second module configured to transmit/receive a signal through a second transmission interface, and a controller configured to set a channel for transmitting/receiving a signal to/from an other electronic device through the second transmission interface, based on a quality of at least one channel transmitting/receiving a signal to/from the other electronic device through the first transmission interface.

#### 34. Method and device for updating profile management server

Date: 2018-11-13 | ID: 10129736

Abstract: A method to converge a 5th-Generation (5G) communication system to support higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT) is provided. This disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, e.g., smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security/safety services. A method of transmitting and updating modified

information to a profile management server (SM-SR) when a modification is made to information stored in an

eUICC that is a security module embedded in a terminal is provided. The present disclosure relates to a

method to update a profile management server to enable profile management using OTA technology when a

modification is made to data stored in an MNO-SD that is a unique area of each mobile network operator of a

profile stored in an eUICC.

35. Method and device for transmitting synchronization signal for device-to-device

communication

Date: 2018-11-13 | ID: 10129842

Abstract: The present invention relates to a communication technique for converging IoT technology with a

5G communication system for supporting a higher data transmission rate than that of a 4G system and

subsequent systems, and a system thereof. The present invention can be applied to intelligent services on

the basis of 5G communication technology and IoT-related technology (for example, smart home, smart

building, smart city, smart car or connected car, health care, digital education, retail, security, and safety

related services and the like). The present invention provides a method and a device for transmitting a

synchronization signal for device-to-device (D2D) communication. According to the present invention, a first

terminal receives a D2D synchronization signal (D2DSS) and a physical D2D synchronization channel

(PD2DSCH) corresponding to the D2DSS from a second terminal, and transmits the D2DSS to the second

terminal according to a method preassigned with the second terminal so as to indicate that the first terminal

has successfully received the D2DSS or the PD2DSCH.

36. Systems and methods providing enhanced education and training in a virtual reality

environment

Date: 2018-11-20 | ID: 10134303

Abstract: Virtual reality arc welding systems that provide virtual reality simulations for training purposes.

Virtual reality welding systems to aid in training welding students may provide intelligent connections to web

sites on the internet, overlays of ideal weld puddles, recommended corrective actions based on virtual testing

results, simulations of virtual environments with safety hazards, and simulations of relationships between

improperly set welding parameters and weld defects and discontinuities.

37. Method and apparatus for controlling visitor call in home network system

Date: 2018-11-20 | ID: 10135990

Abstract: Disclosed is a technology for a sensor network, machine to machine (M2M), machine type

communication (MTC), and internet of things (IoT). The present disclosure can be used for intelligent services (for example, services related to a smart home, smart building, smart city, smart car, connected car, health care, digital education, retail business, security, and safety) based on the technology. A method of controlling a visitor's call by a first terminal in a home network system includes: reading home information pre-stored in the communication module when communication with a communication module installed inside the home is possible; transmitting a visit request message including the home information and identification information of the first terminal to the smart home server or a at least on second terminal from among a plurality of second terminals; and communicating with the at least one second terminal when at least one of the plurality of second terminals accepts communication with the first terminal.

#### 38. Apparatus and method for wireless distance measurement

Date: 2018-11-27 | ID: 10139484

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC), Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. An apparatus and method for measuring a distance between wireless devices using a first signal transmitted/received between the wireless devices in a wireless communication system are provided. The method includes: receiving the first signal for distance measurement transmitted from a first of the wireless devices; receiving a signal reflected by a reflector after being transmitted from the first of the wireless devices; and based on the received first signal and the received reflected signal, estimating a distance between the second of the wireless devices and the reflector.

## 39. Method for activating pSCell and SCell in mobile communication system supporting dual connectivity

Date: 2018-11-27 | ID: 10141983

Abstract: The present disclosure relates to communication methods and systems for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system utilizing technology for Internet of Things (IoT). The present disclosure is applicable to intelligent services utilizing 5G communication technology and IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A Secondary Cell (SCell) method and apparatus for activating an SCell are provided for use in a mobile communication system supporting dual connectivity. The method includes receiving a control

message instructing activation of at least one SCell, determining whether the SCell is a primary SCell (pSCell) based on the control message, monitoring, when the SCell is the pSCell, a Physical Downlink Control Channel (PDCCH) of the pSCell, and reporting, after starting PDCCH monitoring, Channel Status Information (CSI) for the SCell.

40. Method and apparatus for transmitting and receiving signal through beamforming in

communication system

Date: 2018-11-27 | ID: 10141986

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A signal transmission and reception method implemented by a terminal of a mobile communication system is provided. The terminal receives first information including a request for beam related information from a base station and transmits second information including the beam related information based on the first information to the base station. The terminal changes at least one of a Tx beam or a Rx beam associated with the base station, based on the first information and the second information.

41. Method and apparatus for managing contention window in wireless communication system

Date: 2018-11-27 | ID: 10142079

Abstract: A base station is provided. The base station transmits multiple data in a first subframe, receives response signals corresponding to the multiple data, determines a ratio of negative acknowledge (NACK) signals to the response signals, and adjusts or maintains a contention window based on the determined ratio. The present disclosure relates to communication schemes for combining 5th-generation (5G) communication systems with internet of things (IoT) technology to support higher data transmission rate as post-4th-generation (post-4G) systems and systems for the same. The present disclosure may be used in intelligent services (e.g., smart home, smart building, smart city, smart car, or connected car, health-care, digital education, retail business, security and safety-related services, etc.) based on the 5G communication technology and IoT-related techniques.

42. Method and apparatus for communication in wireless communication system

Date: 2018-11-27 | ID: 10142920

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. The method includes receiving a first message including configuration information from a base station, setting an establishment cause based on whether the first message includes a first indicator indicating that a use of a value indicating a voice service as the establishment cause is requested, and transmitting a second message including the establishment cause for a radio resource control (RRC)

#### 43. Education data platform to support a holistic model of a learner

Date: 2018-12-04 | ID: 10147335

connection request.

Abstract: A computer-implemented holistic student performance management system for education is provided for tracking, analyzing and reporting student data. The system identifies at-risk students and student needs, and generates recommended interventions based on student's academic and non-academic experience and needs to address these needs. The system enables tracking of the interventions, student performance and behavior for all student populations.

# 44. Method and apparatus for reference signal configurations for CSI-RS port sharing in mobile communication system using massive array antennas

Date: 2018-12-04 | ID: 10148334

Abstract: A communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT) are provided. The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. According to embodiments of the present disclosure, The system includes a base station having a large number of transmission antennas of a two dimensional (2D) antenna array structure can prevent excessive feedback resource allocation for transmitting channel state information reference signals (CSI-RSs) and increase of channel estimation complexity of a terminal, and the terminal can effectively measure channels of a large number of transmission antennas and can report to the base station feedback information configured through

the measurement.

45. Method and apparatus for estimating position of terminal

Date: 2018-12-04 | ID: 10149107

Abstract: A method and apparatus for estimating a position of a terminal is provided. The method and

apparatus include a technique for a sensor network, a machine to machine (M2M), a machine type

communication (MTC), and Internet of things (IoT), and may be used for intelligent services based on the

technique (smart homes, smart buildings, smart cities, smart cars or connected cars, healthcare, digital

education, retail industry, and security and safety related services). The method includes identifying direction

information of a received signal if setting up connection between a terminal and an access point (AP),

receiving information about a barometric pressure sensor from the terminal, and calculating the position of

the terminal based on the direction information and the information about the barometric pressure sensor of

the terminal.

46. Method and apparatus for managing device using at least one sensor

Date: 2018-12-11 | ID: 10154427

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC), Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method of managing an electronic device is provided, which includes determining a

management target device, selecting at least one measurement device based on the determined

management target device, transmitting an operation command to the management target device, receiving

measurement information from the at least one measurement device, and determining a state of the

management target device based on the received measurement information.

47. Method and apparatus for improving handover success rate

Date: 2018-12-11 | ID: 10154444

Abstract: The present disclosure relates to a communication technique for combining a 5G communication system for supporting a higher data transmission rate after a 4G system with IoT technology, and a system thereof. The present disclosure can be applied to an intelligent service (for example, smart home, smart building, smart city, smart car or connected car, health care, digital education, retail business, security and safety-related service, and so on) on the basis of 5G communication technology and IoT related technology.

The present disclosure can provide a method for supporting a handover and a base station performing the

same. The method includes receiving a message including a Radio Link Failure (RLF) report for a terminal

from at least another base station, and determining whether a cell in which an RRC connection

reestablishment has been attempted by the terminal after the RLF is a cell that is suitable to serve the

terminal at a time of RLF occurrence on the basis of at least one of RRC connection setup indicator

information and the RLF report.

48. Method to view schedule interdependencies and provide proactive clinical process

decision support in day view form

Date: 2018-12-18 | ID: 10157355

Abstract: A system and method for use in managing and preparing for scheduled procedures that are

characterized as being interdependent and variable. The disclosed method enables schedule risk

management and provides a look-ahead capability along with process diagnostics to isolate specific assets

and tasks that can be managed to reduce schedule risk. The method facilitates review of upcoming tasks by

the process stakeholders for education as to where the schedule risks reside and in an emulation mode for

review and improved scheduling going forward. Clinical workflow is integrated such that process stakeholders

and assets are directed in such a way as to keep on, reduce delay risk or recover the schedule.

49. Method and system for presenting interactive, three-dimensional learning tools

Date: 2018-12-18 | ID: 10157550

Abstract: A system includes an education module (171) that is operable with, includes, or is operable to

control three-dimensional figure generation software (170). The education module (171) is configured to

present an educational three-dimensional object (181) on a display (132) upon detecting an educational flash

card (150) being disposed before a camera (130) that is operable with the education module (171). The

educational three-dimensional object (181) can correspond to a visible graphic (151) disposed on the

educational flash card (150) to provide an educational experience to a student.

50. Apparatus and method for zone management

Date: 2018-12-18 | ID: 10158714

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC),

machine-to-machine (M2M) communication, and technology for Internet of things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. An apparatus for zone management is provided. The apparatus includes a processor

configured to collect environment information of each zone of a plurality of zones, and determine an energy

efficiency level of each zone of the plurality of zones based on the environment information.

51. Apparatus and methods for tangible collaborative learning

Date: 2018-12-25 | ID: 10163369

Abstract: The present invention relates generally to a system and method that bring together the advantages

of computer games and the physical world to increase engagement, collaboration and learning. The system

and method can be used with a myriad of physical setups and can be used for many different content areas

in education. In one embodiment, a mixed reality interaction is facilitated with an EarthShake game presented

on a display. The game is synchronized with a tangible interface comprising a physical object and a sensor

capable of detecting a change in the condition of the physical object. The system and method help kids

discover scientific and other learning principles while experimenting with real objects in a physical

environment supported with audio and visual feedback. Students interactively make predictions, see results,

grapple with disconfirming evidence and formulate explanations in forms of general principles.

52. Method and apparatus for controlling scan period in wireless communication system

Date: 2018-12-25 | ID: 10165505

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC),

machine-to-machine (M2M) communication, and technology for internet of things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method includes determining whether a scan period of a first connectivity scheme is

changeable based on a service discovered during the scan period of the first connectivity scheme, if the scan

period of the first connectivity is changeable, detecting a state of a second connectivity scheme, and

changing the scan period of the first connectivity scheme based on the detected state of the second

connectivity scheme.

53. Method and system for synchronizing communication between nodes in a Bluetooth

network

Date: 2018-12-25 | ID: 10165622

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method and an apparatus for synchronizing communication between nodes in a bluetooth

low energy (BLE) mesh network. In the network, a node is configured to generates a seed value based on at least one of own transmission parameter, wherein the seed value indicates next data advertisement instance

of corresponding node. Further, the seed value is used for communicating with other nodes (i.e. 1-hop

neighbor nodes) in the network. Based on data transfer requirements of the node, the node synchronizes

own data transmission and reception settings, such that no two nodes transmit data at the same time.

54. Temperature controlled containers

Date: 2019-01-01 | ID: 10165762

Abstract: Devices and methods are disclosed for the housing and maintenance of aquatic, semi-aquatic, and terrestrial organisms. Methods and device can be applied widely in the care and culture of these species and will find wide applicability in the aquaculture industry, aquarium and pet hobby, science instruction and

education, environmental screening and toxicity testing, and the education-entertainment field.

55. Systems and methods for reducing recidivism among former inmates

Date: 2019-01-01 | ID: 10169739

Abstract: The present invention provides systems and methods for facilitating the integration of former inmates into society upon release from inmate facilities. A representative embodiment of the present invention allows participating inmates to utilize one or more pre-defined services during their period of incarceration. Utilization of these pre-defined services increases the participant's likelihood of rehabilitation, thus reducing recidivism. Examples of pre-defined services include identification, education, employment, financial, housing, and social connection services. A release package based upon information collected during use of these services also provides a personal dossier that facilitates criminal investigations, parole evaluations, probation determinations, and the like.

56. Method and apparatus for scheduling uplink data in mobile communication system

Date: 2019-01-01 | ID: 10172153

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. Provided are a method and apparatus for uplink scheduling in a mobile communication system. The method of uplink scheduling for a user equipment (UE) in a mobile communication system may include identifying the amount of data stored in a buffer, generating a scheduling request (SR), and transmitting the SR to a base station (NB) on the basis of the identified data amount so that an uplink

resource is to be allocated from the NB.

57. Lifescore

Date: 2019-01-08 | ID: 10176233

Abstract: Methods and systems are disclosed that generate life scores for individuals based on various

information associated with the individuals. For example, life scores may be based on data associated with

several aspects of the individual's life, such as work, family, hobbies, education, etc. The life scores may be

generated in realtime and/or periodically and provided to the individual and/or shared with others in various

formats.

58. Device and method for scheduling machine-to-machine communication system

Date: 2019-01-08 | ID: 10178684

Abstract: The present disclosure relates to a technology for a sensor network, a machine-to-machine (M2M)

communication, machine type communication (MTC), and the Internet of things (IoT). The present disclosure

can be utilized for the intelligent service (a smart home, a smart building, a smart city, a smart car or a

connected car, healthcare, digital education, a retail business, a security and safety-related service or the

like) on the basis of the technology. Embodiments of the present invention provide a device and a method for

minimizing an overhead of a mobile communication network in a machine type communication (MTC) system

and minimizing power consumption in devices for MTC. According to an embodiment of the present

invention, a base station device of a mobile communication network for M2M communication comprises: a

transceiver for transmitting and receiving a signal to/from a leader device among a plurality of devices for

M2M communication; and a control unit for transmitting, to the reader device, a downlink control signal

through the transceiver in at least one predetermined interval within a scheduling interval and receiving, from

the reader device, an uplink signal through the transceiver at a specific time point determined from the

predetermined interval within the scheduling interval.

59. Method and apparatus for communication in cellular IoT network

Date: 2019-01-22 | ID: 10187111

Abstract: The present disclosure relates to a communication scheme and system which fuse a 5G

communication system for supporting a higher data transfer rate than a 4G system with IoT technology, and a

system thereof. The present disclosure may be applied to smart services such as smart homes, smart

buildings, smart cities, smart cars or connected cars, healthcare, digital education, retail businesses, security

and safety services, etc., based on 5G communication technologies and IoT related technologies. The

communication method with a device according to the present invention comprises the steps of: transmitting

information on frequency hopping settings to the device; and receiving, from the device, an uplink signal

which hops frequencies according to the frequency hopping settings, wherein the frequency hopping settings

are configured in a way that the uplink signal hops frequencies according to hopping patterns which hop

according to frequency hopping steps, and to additional mirroring hopping patterns which are respectively

inserted between the hopping patterns.

60. Shape-matrix geometric instrument

Date: 2019-02-12 | ID: 10204530

Abstract: Shape-matrix geometric instruments having numerous applications including, but not limited to,

anti-counterfeiting, graphical passwording, games, and geometry education. A shape-matrix geometric

instrument is a manufacture and/or a method whose design is based on a shape-matrix that, in turn

comprises a set of building blocks that are N-dimensional polytopes. Corner shapes are positioned in or near

the interior corner spaces of at least ones of the shape-matrix building blocks. At least ones of the corner

shapes differ from others in at least one property or aspect including, for example, geometric shape,

orientation within the building block, and one or more surface finishes, such as color, shading, cross-hatching

or real or apparent texture.

61. Facilitating a meeting or education session

Date: 2019-02-19 | ID: 10212542

Abstract: Methods include receiving location data of a location associated with a meeting, and receiving

check-in information from a member's device associated with a member in an audience. The meeting has a

leader. A geo-fence is set, based on the location associated with the meeting. The member's device is

determined whether it is within the geo-fence using at least one of (a) using a location sensor disposed within

the member's device; and (b) identifying a locatable device that has a known location and that is connected to

or nearby the member's device. Feedback from a plurality of devices associated with a group of members of

the audience is collected, each one of the plurality of devices having its location determined as to whether it

is within the geo-fence using at least one of (a) or (b) in conjunction with the collecting of feedback. The

feedback is sent to the leader's device.

62. Method of determining the proximity of UE in D2D communication network

Date: 2019-02-19 | ID: 10212673

Abstract: The present disclosure may be applied to intelligent services based on the 5G communication

technology and the IoT-related technology, such as smart home, smart building, smart city, smart car,

connected car, health care, digital education, smart retail, security and safety services. The present invention describes a method of determining proximity of an entity in a device to device (D2D) communication network. The method comprises receiving by a first entity, a message from a second entity, ascertaining by the first entity, a first power information of a signal at which the message being received at the first entity, determining by the first entity, a second power information of the signal at which the message being transmitted by the second entity, determining by the first entity, path loss based on processing the first power information and the second power information, and determining by the first entity, the proximity of the second entity from the first entity based on the determined path loss.

#### 63. Method and apparatus for providing services of network to terminal by using slice

Date: 2019-02-26 | ID: 10219193

Abstract: The present disclosure relates to a communication technique of fusing a 5G communication system for supporting higher data transmission rate beyond a 4G system with an IoT technology and a system thereof. The present disclosure may be applied to intelligent services (e.g., smart home, smart building, smart city, smart car or connected car, health care, digital education, retail business, security and safety related service, or the like) based on the 5G communication technology and the IoT related technology. A communication method of a CCNF comprises detecting a CCNF relocation necessity situation, determining a new CCNF, and transmitting a CCNF relocation request message including information on a terminal being served by the CCNF to the new CCNF The method further comprises receiving a CCNF relocation response message from the new CCNF, and performing a location update procedure with the terminal according to a predetermined condition.

#### 64. Apparatus and method for link setup in wireless communication system

Date: 2019-02-26 | ID: 10219200

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. Link setup using different Radio Access Technologies (RATs) in a wireless communication system is provided. A method for operating a device supporting a first RAT and a second RAT includes sending information notifying a discovery interval start time for the second RAT, using the first RAT, and sending discovery signals during the discovery interval using the second RAT.

65. System for driver's education

Date: 2019-03-05 | ID: 10222228

Abstract: Systems and methods are disclosed for educating vehicle drivers. Auto insurance claim data may

be analyzed to identify hazardous areas associated with an abnormally high amount or severity of vehicle

collisions. A virtual navigation map of roads within the hazardous areas may be built or generated. A common

cause of several vehicle collisions at a hazardous area may be identified, and a virtual reconstruction of a

scenario involving the common cause and/or a road map of collisions locations of may be created. The virtual

reconstruction of the scenario may be displayed on a driver education virtual simulator to enhance driver

education and reduce the likelihood of vehicle collisions.

66. Contemporaneous capture and tagging of media evidence for education evaluation

Date: 2019-03-05 | ID: 10223927

Abstract: An educational evidence and evaluation system for generating media files and context parameters

and linking the media files and context parameters to education profiles during evaluation of a subject is

disclosed. An example educational evidence and evaluation system comprises a capture engine that

captures two media files, a context engine that tags the media files with context parameters, and a linking

engine that links the media files and their tagged context parameters to an education profiles of a subject,

wherein the evaluation engine links a first media file and its first context parameter to the education profile of

a first subject before the capture engine captures a second media file.

67. Apparatus and method of providing a coding education service using a block

Date: 2019-03-12 | ID: 10228914

Abstract: An apparatus and a method of providing coding education service using blocks are disclosed. The

apparatus comprises a plurality of block disposition members configured to have unique coordinate, a main

controller configured to identify plural coding blocks disposed on the block disposition members, and a

communication module configured to transmit identification information and location information of each of

the coding blocks to the user terminal to determine whether or not the coding blocks are disposed according

to coding mission information displayed on a screen of the user terminal.

68. Method and apparatus for channel status information feedback in mobile communication

system

Date: 2019-03-12 | ID: 10230441

Abstract: A communication method and a system for converging a 5th-generation (5G) communication

system for supporting higher data rates beyond a 4th-generation (4G) system with a technology for internet of things (IoT) are provided. The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A method and an apparatus for transmitting cell status information (CSI) in a mobile communication system are provided. The method includes receiving configuration information for a plurality of channel status information reference signals (CSI-RSs), generating feedback information by measuring at least one of the CSI-RSs based on priority information, and transmitting the feedback information. The priority information is associated with a non-precoded CSI-RS, a cell-specific beamformed CSI-RS and a user equipment (UE)-specific beamformed CSI-RS.

#### 69. Method and apparatus for transmitting diversity

Date: 2019-03-12 | ID: 10230446

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. According to a method for transmitting diversity, implemented at a transmitting end, space-time precoding is performed for a digital signal to obtain at least two coded signal streams, and then each coded signal stream is transmitted using a respective transmitting and receiving unit (TXRU) equipped with a multi-antenna array, in which an antenna array weight used by the respective TXRU to transmit each coded signal stream is one of two sets of antenna array weights, and at least two TXRUs use two different sets of antenna array weights. The present disclosure also discloses a corresponding transmitter. With the present disclosure, transmitting diversity may be realized in a large-scale antenna system.

#### 70. Method and apparatus for transmitting information related to a reference signal

Date: 2019-03-12 | ID: 10230508

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. The method for transmitting/receiving signals in a mobile communication system according to

an embodiment of the present invention includes: receiving control information; obtaining information related

to the orthogonal cover code (OCC) length, based on the received control information; and receiving a

reference signal, based on the information related to the OCC length. In a mobile communication system

according to embodiments of the present invention, the base station transmits information related to a

reference signal to a terminal, and the terminal receives the reference signal based on the received

information, thereby improving the performance of channel estimation.

71. System and method of paging in next generation wireless communication system

Date: 2019-03-12 | ID: 10231208

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. An apparatus and method are provided for transmitting/receiving a paging message in a next

generation communication system.

72. Modular education, entertainment and toy block

Date: 2019-03-19 | ID: 10232280

Abstract: The invention relates to a modular education and toy block having at least one piece 10 having a

body (11), a jointer (20) working with comb fitting principle (finger joint), having recesses and/or protrusions

that each of them is in triangular on at least one surface of the joinder (20) which is appropriate to form new

pieces (10) by combining the piece (10) with another piece (10).

73. Registration management method for terminal accessing 5G network on non-3GPP

access

Date: 2019-03-19 | ID: 10237681

Abstract: A communication technique of fusing a fifth generation (5G) communication for supporting higher

data transmission rate beyond a fourth generation (4G) system with an Internet of things (IoT) technology and

a system thereof is provided. The technique may be applied to an intelligent service (smart home, smart

building, smart city, smart car or connected car, health care, digital education, retail business, security and

safety related service, or the like) based on the 5G communication technology and the IoT related

technology. A method is provided for effectively managing a registration state for a terminal in a 5G core

network such as an access and mobility management function (AMF) in a situation of accessing a 5G

network via a non-3rd generation partnership project (3GPP) access.

74. Method of performing cell selection and re-selection using PMAX parameters and system

adapted thereto

Date: 2019-03-19 | ID: 10237813

Abstract: The present disclosure relates to a communication method and system for converging a 5th

Generation (5G) communication system for supporting higher data rates beyond a 4th Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A cell selection/re-selection method and an apparatus adapted thereto is provided. The cell

selection method of a terminal includes: receiving, from a base station, first maximum power information,

PEMAX1 and second maximum power information, PEMAX2, related to maximum transmission power levels

of the terminal on the uplink; calculating a compensation parameter, Pcompensation, related to uplink

transmission power of the terminal, using the first maximum power information and the second maximum

power information; calculating a cell selection reception level value, Srxlev, using the compensation

parameter; and selecting a cell based on the calculated cell selection reception level value.

75. Method and apparatus for managing resources for D2D communication

Date: 2019-03-19 | ID: 10237912

Abstract: The present disclosure relates to a communication method and system for converging a fifth

generation (5G) communication system for supporting higher data rates beyond a fourth generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure applies to intelligent services

based on 5G communications technology and IoT related technology, such as a smart home, smart building,

smart city, smart car, connected car, health care, digital education, smart retail, and security and safety

services. A method for managing resources for Device to Device (D2D) communication includes: establishing

a radio connection with an evolved NodeB (eNB); receiving allocated resources for D2D communication from

the eNB through the radio connection; performing the D2D communication by using the allocated resources

in an idle state after the radio connection is released; and responsive to receiving a message from the eNB

indicating a release of the allocated resources, releasing the allocated resources.

76. Apparatus and method for profile installation in communication system

Date: 2019-03-26 | ID: 10244384

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method of providing a profile package by a profile server and the profile server includes

generating a profile package, dividing the profile package in a unit installable in a UICC of an electronic

device, reconfiguring the divided profile information in an encryptable unit, and transmitting the reconfigured

profile information to the electronic device. Further, provided is an operating method and apparatus of an

electronic device communicating with the profile server.

77. Apparatus and method for transmitting/receiving power transmitting unit presence

information in wireless charging network

Date: 2019-03-26 | ID: 10244462

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC),

machine-to-machine (M2M) communication, and technology for internet of things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method for transmitting power transmitting unit (PTU) presence information is provided.

The method includes receiving an advertisement message from a power receiving unit (PRU); determining

whether a current state is a state that power is supplied to a resonator; and outputting PTU presence

information indicating that a PTU exists, or transmitting the PTU presence information to a management

server, if the current state is the state that the power is not supplied to the resonator.

78. Systems and methods providing enhanced education and training in a virtual reality

environment

Date: 2019-04-02 | ID: 10249215

Abstract: Virtual reality arc welding systems that provide virtual reality simulations for training purposes.

Virtual reality welding systems to aid in training welding students may provide a programmable

processor-based subsystem, a rendering engine, an analysis engine, and recommended corrective actions

based on virtual testing results.

79. Apparatus and method for scheduling packet in communication system

Date: 2019-04-02 | ID: 10250518

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC), machine-to-machine (M2M) communication, and technology for internet of things (IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A method for scheduling a packet in a communication node in a communication system is provided. The method includes detecting a parameter value of a parameter related to a delay characteristic that is related to at least one packet; comparing the detected parameter value and a preset threshold parameter value; determining a priority for the at least one packet based on the compared result; and transmitting the at least one packet corresponding to the determined priority.

#### 80. Account sharing prevention and detection in online education

Date: 2019-04-02 | ID: 10250614

Abstract: An application delivers educational, entertainment or work-related content including videos and documents to any computing device of a user via an account, each account being uniquely identified. Upon each login, the application checks whether the user is already logged in on another computing device and issues a warning or logs out the new device. The application also checks all user accounts periodically to determine whether one account is logged into more than one computing device. Each video or document is associated with a course and has a corresponding course code. An institution database lists courses that a student is currently enrolled in. Another database records videos watched or documents viewed via a student account. Each student account is allowed a maximum number of courses or is limited by the courses in which they are actually enrolled. The application checks whether the videos watched correspond to more than the courses allowed and if so, then access by the student account is blocked.

#### 81. Apparatus and method for providing service in wireless communication system

Date: 2019-04-02 | ID: 10251113

Abstract: Disclosed is a sensor network, machine type communication (MTC), machine-to-machine (M2M) communication, and technology for Internet of Things (IoT), and is applicable to intelligent services such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. An access point (AP) includes a controller that generates a neighbor AP information message including location information of neighbor APs, and a transmitter that transmits the neighbor AP information message including a field indicating that a type of a currently transmitted message includes location information, a length field indicating a length of fields located after the length field in the currently transmitted message, and a location information field indicating location information of each of the neighbor APs.

82. Method for supporting efficient PDU session activation and deactivation in cellular

networks

Date: 2019-04-02 | ID: 10251147

Abstract: The present disclosure relates to a communication method and system for converging a 5G

communication system for supporting higher data rates beyond a 4G system with an IoT technology. The

present disclosure may be applied to intelligent services based on the 5G communication technology and the

IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health

care, digital education, smart retail, security and safety services. The present disclosure provides a scheme

for efficiently operating an UP connection of a session in case where a terminal has a plurality of sessions in

a mobile communication system, such as a 5G system, having a network structure in which an AMF for

mobility management and an SMF for session management are separated from each other. Through the

present disclosure, a terminal (UE) can optimize a non-access stratum (NAS) signaling message, and can

perform data transmission/reception with low latency.

83. Method and apparatus for wireless communication in wireless communication system

Date: 2019-04-09 | ID: 10254413

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The vehicle-to-everything (V2X) communication method by a terminal in a wireless

communication system includes transmitting, to a base station, a first message including assistance

information associated with a semi-persistent scheduling (SPS) for the V2X communication, receiving, from

the base station, a second message including SPS configuration information for the V2X communication,

receiving, from the base station, a third message including downlink control information (DCI) associated with

activation of the SPS for the V2X communication, and transmitting, to another terminal, data based on the

SPS configuration information and the DCI.

84. Method and apparatus for controlling operation based on distance between transmission

device and reception device

Date: 2019-04-09 | ID: 10256928

Abstract: A pre-5th-Generation (5G) or 5G communication system is provided for supporting higher data rates

Beyond 4th-Generation (4G) communication system such as Long Term Evolution (LTE). A method of transmitting a beacon signal and a device using the same are provided. The method includes configuring beacon-related information; generating a beacon signal based on the configured beacon-related information; and transmitting the beacon signal, wherein the beacon-related information includes at least one piece of mode information corresponding to distance information between a beacon transmitting device and at least one beacon receiving device. The present disclosure relates to a sensor network, machine type communication (MTC), machine-to-machine (M2M) communication, and technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services.

## 85. Structure of MAC sub-header for supporting next generation mobile communication system and method and apparatus using the same

Date: 2019-04-09 | ID: 10257747

Abstract: A communication technique of fusing a fifth generation (5G) communication system for supporting higher data transmission rate beyond a fourth generation (4G) system with an Internet of things (IoT) technology and a system thereof are provided. The communication technique may be used for an intelligent service (for example, a smart home, a smart building, a smart city, a smart car or a connected car, health care, digital education, a retail business, a security and safety related service, or the like) based on the 5G communication technology and the IoT related technology. A method for defining media access control (MAC) sub-header structures suitable for a next generation mobile communication system and applying the MAC sub-header structures to provide a high data transmission rate and a low latency in the next generation mobile communication system is provided.

## 86. Structure of MAC sub-header for supporting next generation mobile communication system and method and apparatus using the same

Date: 2019-04-09 | ID: 10257748

Abstract: A communication technique of fusing a fifth generation (5G) communication system for supporting higher data transmission rate beyond a fourth generation (4G) system with an Internet of things (IoT) technology and a system thereof are provided. The communication technique may be used for an intelligent service (for example, a smart home, a smart building, a smart city, a smart car or a connected car, health care, digital education, a retail business, a security and safety related service, or the like) based on the 5G communication technology and the IoT related technology. A method for defining media access control

(MAC) sub-header structures suitable for a next generation mobile communication system and applying the

MAC sub-header structures to provide a high data transmission rate and a low latency in the next generation

mobile communication system is provided.

87. Device and method for controlling standby power of mobile terminal

Date: 2019-04-09 | ID: 10257785

Abstract: Disclosed are: a communication technique combining, with IoT technology, a 5G communication

system for supporting a data transmission rate higher than that of a 4G system, and subsequent systems;

and a system therefor. The disclosed communication technique and system therefor can be applied to

intelligent services (for example, services related to a smart home, a smart building, a smart city, a smart car

or a connected car, health care, digital education, retail business, security, safety and the like) on the basis of

5G communication technology and IoT-related technology. A method for controlling standby power of a

mobile terminal, of the present invention, comprises: detecting applications and services related to a

background operation; classifying the detected applications and services according to characteristics;

predicting use patterns for the applications and the services classified by the characteristics, in consideration

of a user response to the applications and the services classified according to the characteristics; and

controlling the applications and the services classified by the characteristics, on the basis of the applications

and the services classified by the characteristics and the predicted use patterns.

88. Apparatus and method for installing electronic device in wireless communication system

Date: 2019-04-09 | ID: 10257865

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The present disclosure provides an apparatus and a method for installing an electronic

device in a wireless communication system. A method for operating a first electronic device includes

obtaining location information of the first electronic device, and sending the location information of the first

electronic device to a system controller to operate a second electronic device to be paired with a third

electronic device located near the first electronic device, in a pairing mode.

89. Method, system and apparatus for dynamic registry of books and for modeling real-time

market demand for books within academic sectors

Date: 2019-04-16 | ID: 10262040

Abstract: A system provides a connection between education administration, particularly as such

administration assigns or selects books, and the marketing and use of those books. Such marketing and use

of those books and information related to those books can include, without limitation, consumer product

information, the publishing industry and specifically book publishing, and market analysis, analysis of data,

markets, demand and supply chain and inventory management.

90. Method and apparatus for reporting periodic channel state information in mobile

communication system using massive array antennas

Date: 2019-04-16 | ID: 10263681

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The present disclosure proposes a method and an apparatus for determining channel state

information (CSI) to be reported according to a plurality of channel state reporting priority if periodic channel

state information reporting collide with each other, and reporting the channel state information.

91. Method and apparatus for providing web services

Date: 2019-04-23 | ID: 10270836

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The method and apparatus provide information on traffic of a user equipment in a mobile

communication system to an operator's network or to a third server. An operator can operate a proxy and

may inspect and control a hypertext transfer protocol over secured layer (HTTPS) traffic through the proxy to

collect HTTPS traffic relevant information.

92. Resume management and recruitment workflow system and method

Date: 2019-04-30 | ID: 10275741

Abstract: A computer system and method for managing access to a resume database. For each skill or

experience-related phrase in a resume, the system computes a term of experience based on an experience

range associated with a contextual use of the phrase in the resume. The term of experience for a phrase that occurs multiple times in the resume is the summation of the term of experience for each occurrence of the phrase associated with a different contextual use. The system stores each phrase and the term of experience in a parsed resume. The resume database also stores job descriptions that include required phrases and a required term of experience for each required phrase. The job descriptions also store a required level of education or field of specialization, and a required salary range. A recruiter searches the resume database to find matching resumes that satisfy a job description.

### 93. Apparatus and method for alarm service using user status recognition information in

electronic device

Date: 2019-04-30 | ID: 10276010

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC), Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A method and an apparatus for alarm service using user status recognition information in an electronic device is provided. The method of electronic device includes determining a rule for eliminating a fire danger of at least one device capable of communicating with the electronic device, determining the fire danger of the at least one device based on the rule, and if the fire danger exists, notifying the fire danger to a user.

#### 94. Apparatus and method for executing task of electronic device

Date: 2019-04-30 | ID: 10277712

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC), machine-to-machine (M2M) communication, and technology for Internet of Things (IoT). The present disclosure provides intelligent services based on a variety of technologies, such as a smart home, a smart building, a smart city, a smart car, a connected car, a health care, a digital education, a smart retail, security and safety services. An apparatus and method for executing a task of an electronic device are provided. The apparatus includes a communication interface configured to receive state information associated with the electronic device from the electronic device, and a processor configured to determine whether to execute a specific task in the electronic device or a mobile terminal based on the state information about the electronic device and state information about the mobile terminal, and to indicate a result of the determination to the electronic device through the communication interface.

95. Multimedia apparatus, online education system, and method for providing education

content thereof

Date: 2019-05-07 | ID: 10283004

Abstract: A multimedia apparatus and a method for providing content thereof are provided. In the method for

providing content of the multimedia apparatus, user private information corresponding to authentication

information of a user is acquired when the authentication information of the user for execution of content is

received, a state of the user using at least one sensor is detected during reproduction of the content, a

parameter of the content is changed according to the acquired private information and the state of the user,

and the content is reproduced with the changed parameter.

96. Thoracic cavity simulator

Date: 2019-05-07 | ID: 10283016

Abstract: Provided is a thoracic cavity simulator that, for the purpose of training or education in thoracic cavity

microscopic surgery, faithfully reproduces the shape and feel of a human body and that can simulate a

surgical environment for a human body that has multiple constraints. A device that comprises a model human

skeleton that simulates at least ribs, and comprises a casing that houses the model human skeleton, the

device being configured such that an opening is provided to a rib section of the casing, such that a diaphragm

section can be opened and closed, and such that model organs can be housed inside the ribs of the model

human skeleton. The diaphragm section is configured so as to be removable and/or openable and closable,

and the model organs housed inside the ribs of the model human skeleton are replaced.

97. Method for implementing control of display of highlighted area on display

Date: 2019-05-14 | ID: 10290100

Abstract: This invention discloses a method to control highlighting of certain part of image on a display,

wherein the image processing unit forwards the physical coordinates acquired by the host computer's

coordinate acquisition unit to the coordinate transmission unit, and draws a regular shape centered on the

acquired physical coordinates, and then displays the area within the regular shape at the normal brightness,

and the rest outside the area at the corresponding proportion of low brightness. According to the method of

the present invention, the attention of the doctor is focused on the specific or targeted area, the interferences

caused by the surrounding images and the brightness are shielded, and the images in the specific pattern

area is easier to identify. Thus, it will help doctors to improve the efficiency and accuracy of medical diagnosis

for a lesion and make medical consultation and education more convenient.

98. Method and system for minimizing channel preservation time in cellular communications

on un-licensed band

Date: 2019-05-14 | ID: 10291445

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. Method and system for minimizing channel preservation time in a cellular communication

network. The system, after channel sensing and if the channel is free, dynamically determines a Preservation

Signal (PS) value, and then adjusts the channel preservation time, based on the determined PS value. The

system can minimize the channel preservation time, by restarting data transmission upon detecting a symbol

boundary, while the data transmission is in progress.

99. Method and apparatus for transmitting and receiving data between terminal and base

station in mobile communication system

Date: 2019-05-14 | ID: 10291450

Abstract: The present disclosure relates to a communication technique for converging a 5G communication

system for supporting a higher data rate beyond a 4G system with an IoT technology, and a system therefor.

The present disclosure can be applied to intelligent services (for example, smart home, smart building, smart

city, smart car or connected car, healthcare, digital education, retail, security and safety-related service, and

the like) on the basis of a 5G communication technology and an IoT-related technology. The present

invention relates to a method for transmitting and receiving data, and a method for receiving data by a

terminal according to the present invention comprises: receiving, from a base station, a random sequence

generation parameter for generating a random sequence including a random variable in a first band;

generating the random sequence using the received parameter; and performing decoding on the basis of the

random variable included in the random sequence in a second band.

100. Resume management and recruitment workflow system and method

Date: 2019-05-21 | ID: 10296872

Abstract: A computer system and method for managing access to a resume database. For each skill or

experience-related phrase in a resume, the system computes a term of experience based on an experience

range associated with a contextual use of the phrase in the resume. The term of experience for a phrase that

occurs multiple times in the resume is the summation of the term of experience for each occurrence of the phrase associated with a different contextual use. The system stores each phrase and the term of experience in a parsed resume. The resume database also stores job descriptions that include required phrases and a required term of experience for each required phrase. The job descriptions also store a required level of education or field of specialization, and a required salary range. A recruiter searches the resume database to find matching resumes that satisfy a job description.

# 101. Method and apparatus for controlling temperature

Date: 2018-07-03 | ID: 10012406

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC), Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A method for controlling temperature in a temperature controlling system is provided. The method includes determining occupancy or non-occupancy of a user in a space subject to setback control; when the user's non-occupancy is determined, determining whether to start the setback control based on probability distribution of a non-occupancy period that are predetermined; when it is determined to start the setback control, determining the user's target temperature based on previously collected data; calculating a setback temperature based on the target temperature; and performing the setback control according to the calculated setback temperature.

# 102. Dynamic differential diagnosis training and evaluation system and method for patient condition determination

Date: 2018-07-17 | ID: 10026328

Abstract: A dynamic differential diagnosis training and evaluation system incorporates a beginner student learning mode, a beginner student test mode, an advanced student learning mode, and an advanced student test mode for training, nurturing, and evaluating dynamic differential diagnosis (dynamic DDx) reasoning skills for patient condition determination. In a preferred embodiment of the invention, the dynamic differential diagnosis training and evaluation system incorporates one or more computerized user interfaces for displaying, choosing, and interacting with a simulated virtual patient, hypotheses selections for the patient condition determination, simulated physical exam selections, simulated medical test selections, simulated medical test results, a computerized expert's feedback and answers, and an iterative differential diagnosis (DDx) list modification and refinement process that simulates real-life dynamic differential diagnosis (dynamic

DDx). Furthermore, the dynamic differential diagnosis training and evaluation system can also incorporate

healthcare education contents generated from a healthcare content authoring platform.

103. Method to deliver contextual educational information utilizing smart wearables

Date: 2018-07-17 | ID: 10026332

Abstract: Educational information is provided to a user associated with a trigger object, and an

education-related user attribute. Contemplated trigger objects include wearables, and especially pieces of

jewelry. Contemplated education-related user attributes include current age, gender, subject being studied,

current grade level, hobby, ethnicity, profession, vocation, location of interest, topic of interest, time period of

interest, event of interest, favorite sport, favorite team, current school, color preference, resource preference,

brand affinity, and expertise level. The educational information can be rendered directly on the trigger object,

or on any other electronic rendering device.

104. Method and apparatus for generating, transmitting and receiving signals based on filter

bank in wireless communication system

Date: 2018-07-17 | ID: 10027520

Abstract: The present disclosure relates to a communication method and system for converging a 5G

communication system for supporting higher data rates beyond a 4G system with a technology for IoT. The

present disclosure may be applied to intelligent services based on the 5G communication technology and the

IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health

care, digital education, smart retail, security and safety services. The present application discloses a method

and device for transmitting and receiving signals based on a filter bank. The device comprises: a CS-DFT

spreading unit for generating two data flows by applying a CS-DFT spreading operation to a first

complex-value data flow input thereto; a sub-carrier mapping unit for mapping each of the two data flows to

corresponding sub-carriers; and an OQAM modulator for generating OQAM signals by applying an OQAM

operation to the data flows mapped on sub-carriers.

105. Method and apparatus for estimating location in a terminal

Date: 2018-07-17 | ID: 10028089

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method and apparatus for estimating a location in a terminal are provided. The method

includes calculating locations of the terminal and a tag, calculating information about movement of the

terminal using a motion sensor, and correcting the calculated location of the tag based on information about

the movement of the terminal.

106. Product and presentation placement system and method

Date: 2018-07-24 | ID: 10032196

Abstract: Viewers of presentations of entertainment, news, education and other the like, often observe

unadvertised products of interest therein. However, in order to avoid degrading the artistic or objective

integrity, producers and distributors of such presentations, do not provide sufficient product description

information to permit the viewer to identify and/or purchase the product. The present invention describes

methods and systems for permitting such users to research and/or purchase products observed to be

involved in presentations by accessing presentation appearance data, product description data, and issuance

data prepared, stored and associated in a non-transitory computer-readable database.

107. Account sharing detection in online education

Date: 2018-07-24 | ID: 10033727

Abstract: An education application delivers educational content including videos and documents to any

computing device of a user via a student account. Each video or document is associated with a course and a

corresponding course code. A database lists those courses and course codes that are incompatible with one

another. A University database lists courses that a student is currently enrolled in. Course codes for

educational content delivered via a student account are compared to either database. Access by the student

account is blocked if any course codes for delivered content are incompatible with either database. Another

database records videos watched via a student account. If a threshold number of relatively long videos are

watched in a short time period then access by the student account is blocked. If a student account begins a

second video before the first is finished then access is blocked. Content is hidden if not relevant.

108. Method and apparatus for providing service in wireless network

Date: 2018-07-24 | ID: 10034261

Abstract: A technique for sensor network, Machine to Machine (M2M), Machine Type Communication (MTC),

Internet of Things (IoT) is provided. The present disclosure can be applied to intelligent services (smart

homes, smart buildings, smart cities, smart cars or connected cars, health care, digital education, retail,

security and safety service) based on the technique. A method for operating a user equipment (UE) is

provided. The method includes receiving a first signal comprising a first category identification (ID) and a first

unique ID from a first beacon device, determining a distance from the first beacon device based on the first

signal, if the distance is below a threshold, registering the first category ID, and if a second signal comprising

the registered first category ID from a second beacon device, displaying information corresponding to a

second unique ID of the second signal.

109. System for promoting travel education

Date: 2018-08-07 | ID: 10043412

Abstract: There is a system and method for promoting travel education including a toy having a particular

geographic association represented visually on the toy. The toy includes a unique identifier observable on the

toy and associated with the particular geographic association. The system includes a management module

configured to interact with the toy and thereby promote travel education. The management module includes a

user account management module associated with the unique identifier of the toy and configured to manage

a user account associated therewith and to receive location information in regards to the toy. The

management module includes a geographic rules module in communication with the user account

management module and configured to store, provide and enforce a set of rules on the user account based

on the particular geographic location of the toy associated with the user account.

110. Method and device for selective communication service in communication system

Date: 2018-08-07 | ID: 10045177

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A user equipment in a communication system, according to various embodiments of the

present disclosure, includes: a controller that determines at least one communication service to deactivate

among communication services that are able to be provided and a transmitter that transmits, to a server, a

message for identifying the at least one communication service to deactivate.

111. Job recall services in online education platforms

Date: 2018-08-14 | ID: 10049416

Abstract: An online education platform manages and integrates a number of education services for users of

the platform, including job recall services. These job recall services include management and distribution of

job recall materials that test whether job applicants have acquired desired knowledge or skills for a particular

job opening or class of jobs. The job recall materials are uploaded to the education platform and mapped to

one or more learning units. Each learning unit is associated with an educational course and includes a

distinct concept in the associated course. Responsive to a user of the education platform completing the learning unit to which a job recall material is mapped, the job recall material is recommended to the user.

112. Automated educational system

Date: 2018-08-14 | ID: 10049593

Abstract: A method and system for providing computerized education may provide a user with a first set of educational segments such as problem sets or presentations, and may further monitor the user's reactions and responses using electronic devices, including biometric sensors, to identify difficulty points. Reports may be generated and presented to the user or another party to assist in manual identification of the difficulty point. New or modified educational segments may be provided to the user based on the identified difficulty

points.

113. Method and apparatus for transmitting and receiving data in communication system

Date: 2018-08-14 | ID: 10050881

Abstract: Disclosed is a technology for a sensor network, Machine to Machine (M2M), Machine Type Communication (MTC), and Internet of Things (IoT). The present disclosure can be used for intelligent services (for example, services related to smart homes, smart buildings, smart cities, smart cars, connected cars, health care, digital education, retail businesses, security, and safety) based on the technology. A method of transmitting data in a communication system includes: generating a hash value by applying a hash function to original data; generating a message including at least one of the original data and the generated hash value based on whether there is an existing hash value equal to the generated hash value; and transmitting the message.

114. Method and apparatus for communicating using unlicensed bands in mobile

communication system

Date: 2018-08-14 | ID: 10051661

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4G system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A method for performing communication using an unlicensed band includes reserving a channel of the unlicensed band using a control frame supporting WLAN by a WLAN module, when reserving the channel of the unlicensed band succeeds, determining whether the channel of the unlicensed band is used by a mobile

communication module, and transmitting data supporting the unlicensed band through the reserved channel

of the unlicensed band.

115. Advanced remotely operated vehicle for education and research

Date: 2018-08-28 | ID: 10059418

Abstract: Disclosed are watercrafts with rotatable air propulsion steering units and retractable measurement

instruments. The watercraft can include a substantially flat bottom, a top deck, a rotatable air propulsion

steering unit configured to propel the watercraft and to rotate in order to steer the watercraft when the

watercraft is submerged in a liquid body without requiring a submerged rudder steering system under the

substantially flat bottom. The watercraft can also include a retractable measurement deck configured to

alternatively raise measurement instruments above the liquid body and lower into the liquid body.

116. Education kit for open hardware

Date: 2018-08-28 | ID: 10062298

Abstract: An open hardware education kit is provided. The open hardware education kit comprises an

expansion board. The expansion board comprises a plurality of metal terminals joinable with a magnet, a

plurality of conductive connection wires respectively connected with the metal terminals, and a plurality of pin

headers respectively connected with the connection wires. The plurality of pin headers are joinable with an

expansion header of open hardware.

117. Method and apparatus for charging use of radio resources in wireless communication

system

Date: 2018-08-28 | ID: 10064034

Abstract: The present disclosure relates to a communication technique for combining a 5G communication

system that supports higher data transmission rates after 4G systems with IoT technology and to the system

therefor. The present disclosure can be applied for intelligent services based on 5G communication

technology and IoT related technology (for example, smart homes, smart buildings, smart cities, smart cars or

connected cars, healthcare, digital education, retail businesses, security and safety related services, and the

like). According to the present disclosure, a method for charging by a base station in a wireless

communication system comprises, upon sensing use of a resource by a device performing

machine-to-machine (M2M) communication using a resource allocated to the wireless communication system

based on a charging reference, gathering charging-related information about the sensed use of the resource

and transmitting the charging-related information or charging information to a higher entity.

118. Data storage and access platform with jurisdictional control

Date: 2018-09-04 | ID: 10068098

Abstract: There is disclosed a modular data storage and access platform with jurisdictional control. The

platform ensures alignment of jurisdictional compliance between a user, national laws, and associated data

through pre-scripted data channeling and handling during execution of application provider business services

and/or sharing and synchronizing data between approved parties, encapsulated though user defined

encryption technology, while ensuring physical and legal ownership and defined residency of user data with

solution enablement free of technical complexity or need of special education/training or need of information

technology services. In an embodiment, the platform enables approved third party value added SaaS

applications to manipulate data stored on the modular data storage without removing the data from the

platform.

119. Method and apparatus for generating and reporting feedback information in mobile

communication system

Date: 2018-09-04 | ID: 10069550

Abstract: Disclosed are: a communication technique for fusing, with IoT technology, a 5G communication

system for supporting a data transmission rate higher than that of a 4 G system and subsequent systems;

and a system thereof. The present disclosure can be applied to an intelligent service (for example, smart

home, smart building, smart city, smart car or connected car, health care, digital education, retail business,

security and safety-related service and the like) based on 5G communication technology and IoT related

technology. The present disclosure presents a method by which a base station determines the approximate

location of a terminal on the basis of a reception power report, and sets a codebook subset on the basis of

the approximate location of the terminal so as to reduce a channel state report burden.

120. Community moderated information

Date: 2018-09-25 | ID: 10083420

Abstract: According to one aspect, an approach is provided that assists in presenting the right information

within the ecosystem. The approach involves associating information sources (ads, sponsored information,

research requests, debate notices, seminars, education opportunities, peer generated information, etc) with a

feedback mechanism. In one embodiment, the feedback mechanism includes a scoring feature, where

individual participants within the ecosystem rate the relevancy and/or importance of the information provided.

In one example, a user is notified that a potentially relevant information source is available. The notification is

typically displayed unobtrusively within a browser or interface window that the user is navigating. In one

implementation, the user must perform some affirmative action to reach information associated with the information opportunity. In one example, requiring an affirmative action serves as a shield from pop-ups, banner-ads, and other distracting form of advertising. It is also realized that allowing the user to select the information opportunity rather than display it immediately permits the user to decide explore the opportunity. In one example, permitting the user to decide to explore the opportunity increases the user's receptivity to the information opportunity. In one embodiment, information associated with the information opportunity is displayed in response to user selection. The information associated with the information opportunity describes the information opportunity available. The user is provided with the opportunity to evaluate the information opportunity without being required to visit it and/or review it in its entirety. The information associated with the information opportunity may also be displayed with user feedback.

# 121. Method and system for collaborative learning

Date: 2018-09-25 | ID: 10083492

Abstract: A method for educating a patient through a collaborative network is provided. The patient is authenticated with a username and a password. A request is received by a server for entry to a repository for educational design activities. Each of educational design activities includes exemplar design configurations and material lists and is configured to include photographs and written texts for other patients who have completed the associated educational design activity. A hypertext document is transmitted to the client computerwhich includes the education design activities. The hypertext document is configured to be displayed through a browsing application on the client computer. A request is received by the server from the client computer for access to a selected education design activity, and access is provided to a design engine for the selected educational design activity. A design file created by the patient is then stored using the design engine.

# 122. Doll companion integrating child self-directed execution of applications with cell phone communication, education, entertainment, alert and monitoring systems

Date: 2018-10-02 | ID: 10086302

Abstract: The presented cell phone-enabled doll companion allows a child novel ways to self-select and self-execute applications while requiring no intervention or supervision from the parent. Further, it provides learning, entertainment and safety by integrating cell phone communication, education, entertainment, alert and monitoring systems. While providing a convenient means of communication between the child and parent, the system allows surveillance of a child's real-time environment, GPS monitoring and SIDS/health monitoring. The functionality and the physical elements of the system are programmable through installation

of applications downloadable from an application store. Various options for parental access to a configuration

interface to modify settings and download applications are provided, including via a cell phone, a website,

customer service call center and/or the doll companion touch screen.

123. Situated simulation for training, education, and therapy

Date: 2018-10-02 | ID: 10089895

Abstract: Systems, methods, and other embodiments associated with producing an immersive training

content module (ITCM) are described. One example system includes a capture logic to acquire information

from which the ITCM may be produced. An ITCM may include a set of nodes, a set of measures, a logic to

control transitions between nodes during a training session, and a logic to establish values for measures

during the training sessions. Therefore, the example system may also include an assessment definition logic

to define a set of measures to be included in the ITCM and an interaction logic to define a set of interactions

to be included in the ITCM. The ITCM may be written to a computer-readable medium.

124. Dental education model

Date: 2018-10-09 | ID: 10096267

Abstract: The dental education model is a realistic model of a human jaw with removable teeth, including a

base plate and a substantially U-shaped member simulating a human gingiva. The substantially U-shaped

member has upper and lower surfaces, the lower surface being mounted on the base plate. The upper

surface has a plurality of recesses defined therein. A plurality of first magnetic connectors are embedded in

the substantially U-shaped member adjacent to closed ends of the plurality of recesses. A plurality of

simulated teeth have coronal and root portions. The root portions of the plurality of teeth are removably

received within the plurality of recesses formed in the substantially U-shaped member. A plurality of second

magnetic connectors are embedded in the root portions of the plurality of the teeth, such that the first and

second magnetic connectors are releasably magnetically attachable to one another.

125. Apparatus and method for power control, reporting and uplink transmission

Date: 2018-10-09 | ID: 10098075

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The present disclosure provides a power adjusting method and corresponding to control

node and UE. According to the present disclosure, interference to adjacent devices of the same or different wireless access techniques may be avoided, uplink scheduling efficiency of the UE may be increased, and therefore the efficiency of the whole network is increased.

126. Method and apparatus for adaptive beam hopping in multi cell multi user

communication system

Date: 2018-10-16 | ID: 10103800

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. Disclosed are a method and an apparatus for performing adaptive beam hopping in a multi-cell multi-user communication system. The method includes: making a request for allowing multiple accesses for beam hopping for a predetermined operation time to a plurality of accessible base stations (BSs); receiving a response to the request from two or more BSs among the plurality of BSs and determining, according to a predetermined reference, beams above the reference among transmission beams of the two or more BSs as available beams; determining a beam hopping pattern based on the determined available beams and transmitting the determined hopping pattern to the two or more BSs; and forming reception beams based on the determined beam hopping pattern to receive signals.

127. Method and apparatus for transmitting and receiving data using plurality of carriers in

mobile communication system

Date: 2018-10-23 | ID: 10111257

Abstract: The present disclosure relates to converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT), and may be applied to intelligent services, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A method according to disclosed aspects includes receiving a first control message including a first random access response window for a first cell group, receiving a second control message for adding a second cell group, including information on a second random access response window size for the second cell group, transmitting, on a cell of the second cell group, a random access preamble, and monitoring, on the cell of the second cell group, a random access response based on the second random access response window size for the second cell group.

128. Method for adaptive learning utilizing facial recognition

Date: 2018-10-30 | ID: 10115038

Abstract: A computer implemented method for significantly increasing the efficacy of computer adaptive

learning (which currently measures and acts on a learner's performance in the cognitive or objective learning

domain of education) by additionally detecting and identifying the learner's emotional response data and

together with the cognitive data, optimizing the educational content being presented. These emotional

responses constitute the affective or emotional domain of education.

129. Reflexive education: a method for automated delivery of educational material linked to

objective or subjective data

Date: 2018-10-30 | ID: 10115482

Abstract: A health management system (10) comprises educational content sessions (150, 152, . . . ) each

being directed toward achieving a health management goal. A user interface (48) is configured for presenting

the content sessions (150, 152, . . . ). At least one feedback path (48, 82, 120, 122) provides at least one

input which includes an item of interest. A content flow engine (170) configured to automatically select the

content sessions (150, 152) based on the at least item of interest and on content flow rules and initiate

presentation of the selected content sessions via the user interface (48).

130. Method and apparatus for transmitting and receiving data

Date: 2018-10-30 | ID: 10116424

Abstract: Provided is a technology related to a sensor network, machine to machine (M2M), machine type

communication (MTC), and the Internet of things (IoT). Transmitting data between transceivers including

transmitting data segments of source data and parity data segments including restoration information for a

transceiver to restore the source data. The method is applicable to intelligent services based on the

technology (e.g., smart home services, smart building services, smart city services, smart or connected car

services, health care services, digital education services, retail business services, security and safety-related

services, etc.).

131. Collaborative, social online education and whiteboard techniques

Date: 2018-11-13 | ID: 10126927

Abstract: Various techniques are disclosed for facilitating a computer-supported collaborative session that

includes at least two participants using different computing devices to view a canvas that is configured to

contain objects added by one or more of the participants. The computer-supported collaborative session is configured to permit participants to mark and/or edit selected objects presented on the canvas. Participants may use a mobile device camera to capture images or video clips, and post the captured images or video clips to the canvas by emailing or text messaging the captured image to a designated email address or phone number.

## 132. Advanced transparent projection communication terminals

Date: 2018-11-13 | ID: 10129506

Abstract: Enterprise communication display systems enable life-like images for videoconferencing and entertainment productions. Life-like images appear in a 3D environment where imaged people are visible through specially configured see-through displays. Imaged people can be viewed amongst a reflected foreground. Methods for enterprise-wide deployments for corporate, healthcare, education, and government communications, including hotel properties and a property management system are shown. Direct projection see-through screen configurations are created that eliminate unwanted secondary images in the room, conceal exposed projector lenses, reduce lens flare, makes practical multi-use room installations, images conferees among a room environment, enables touch screen interactivity, and utilizes extreme short throw projectors to reduce cost and bulk of common throw projectors. Further, a multi-format VR/AR production system is disclosed enabling several formats to be created simultaneously. Further, a camera through a transparent OLED for eye contact videoconferencing is disclosed. Additionally, an imaged map projected interior environment that produces the rooms ambient light is disclosed.

### 133. Method for selecting channel and an electronic device thereof

Date: 2018-11-13 | ID: 10129690

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC), Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. An electronic device, a method of an electronic device, and a method of a terminal apparatus are provided. The electronic device includes a first module configured to transmit/receive a signal through a first transmission interface, a second module configured to transmit/receive a signal through a second transmission interface, and a controller configured to set a channel for transmitting/receiving a signal to/from an other electronic device through the second transmission interface, based on a quality of at least one channel transmitting/receiving a signal to/from the other electronic device through the first transmission interface.

134. Method and device for updating profile management server

Date: 2018-11-13 | ID: 10129736

Abstract: A method to converge a 5th-Generation (5G) communication system to support higher data rates

beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT) is provided. This

disclosure may be applied to intelligent services based on the 5G communication technology and the

IoT-related technology, e.g., smart home, smart building, smart city, smart car, connected car, health care,

digital education, smart retail, security/safety services.A method of transmitting and updating modified

information to a profile management server (SM-SR) when a modification is made to information stored in an

eUICC that is a security module embedded in a terminal is provided. The present disclosure relates to a

method to update a profile management server to enable profile management using OTA technology when a

modification is made to data stored in an MNO-SD that is a unique area of each mobile network operator of a

profile stored in an eUICC.

135. Method and device for transmitting synchronization signal for device-to-device

communication

Date: 2018-11-13 | ID: 10129842

Abstract: The present invention relates to a communication technique for converging IoT technology with a

5G communication system for supporting a higher data transmission rate than that of a 4G system and

subsequent systems, and a system thereof. The present invention can be applied to intelligent services on

the basis of 5G communication technology and IoT-related technology (for example, smart home, smart

building, smart city, smart car or connected car, health care, digital education, retail, security, and safety

related services and the like). The present invention provides a method and a device for transmitting a

synchronization signal for device-to-device (D2D) communication. According to the present invention, a first

terminal receives a D2D synchronization signal (D2DSS) and a physical D2D synchronization channel

(PD2DSCH) corresponding to the D2DSS from a second terminal, and transmits the D2DSS to the second

terminal according to a method preassigned with the second terminal so as to indicate that the first terminal

has successfully received the D2DSS or the PD2DSCH.

136. Systems and methods providing enhanced education and training in a virtual reality

environment

Date: 2018-11-20 | ID: 10134303

Abstract: Virtual reality arc welding systems that provide virtual reality simulations for training purposes.

Virtual reality welding systems to aid in training welding students may provide intelligent connections to web

sites on the internet, overlays of ideal weld puddles, recommended corrective actions based on virtual testing

results, simulations of virtual environments with safety hazards, and simulations of relationships between

improperly set welding parameters and weld defects and discontinuities.

137. Method and apparatus for controlling visitor call in home network system

Date: 2018-11-20 | ID: 10135990

Abstract: Disclosed is a technology for a sensor network, machine to machine (M2M), machine type

communication (MTC), and internet of things (IoT). The present disclosure can be used for intelligent services

(for example, services related to a smart home, smart building, smart city, smart car, connected car, health

care, digital education, retail business, security, and safety) based on the technology. A method of controlling

a visitor's call by a first terminal in a home network system includes: reading home information pre-stored in

the communication module when communication with a communication module installed inside the home is

possible; transmitting a visit request message including the home information and identification information of

the first terminal to the smart home server or a at least on second terminal from among a plurality of second

terminals; and communicating with the at least one second terminal when at least one of the plurality of

second terminals accepts communication with the first terminal.

138. Apparatus and method for wireless distance measurement

Date: 2018-11-27 | ID: 10139484

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. An apparatus and method for measuring a distance between wireless devices using a first

signal transmitted/received between the wireless devices in a wireless communication system are provided.

The method includes: receiving the first signal for distance measurement transmitted from a first of the

wireless devices; receiving a signal reflected by a reflector after being transmitted from the first of the

wireless devices; and based on the received first signal and the received reflected signal, estimating a

distance between the second of the wireless devices and the reflector.

139. Method for activating pSCell and SCell in mobile communication system supporting

dual connectivity

Date: 2018-11-27 | ID: 10141983

Abstract: The present disclosure relates to communication methods and systems for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system utilizing technology for Internet of Things (IoT). The present disclosure is applicable to intelligent services utilizing 5G communication technology and IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A Secondary Cell (SCell) method and apparatus for activating an SCell are provided for use in a mobile communication system supporting dual connectivity. The method includes receiving a control message instructing activation of at least one SCell, determining whether the SCell is a primary SCell (pSCell) based on the control message, monitoring, when the SCell is the pSCell, a Physical Downlink Control Channel (PDCCH) of the pSCell, and reporting, after starting PDCCH monitoring, Channel Status Information (CSI) for the SCell.

# 140. Method and apparatus for transmitting and receiving signal through beamforming in communication system

Date: 2018-11-27 | ID: 10141986

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A signal transmission and reception method implemented by a terminal of a mobile communication system is provided. The terminal receives first information including a request for beam related information from a base station and transmits second information including the beam related information based on the first information to the base station. The terminal changes at least one of a Tx beam or a Rx beam associated with the base station, based on the first information and the second information.

# 141. Method and apparatus for managing contention window in wireless communication system

Date: 2018-11-27 | ID: 10142079

Abstract: A base station is provided. The base station transmits multiple data in a first subframe, receives response signals corresponding to the multiple data, determines a ratio of negative acknowledge (NACK) signals to the response signals, and adjusts or maintains a contention window based on the determined ratio. The present disclosure relates to communication schemes for combining 5th-generation (5G) communication systems with internet of things (IoT) technology to support higher data transmission rate as

post-4th-generation (post-4G) systems and systems for the same. The present disclosure may be used in

intelligent services (e.g., smart home, smart building, smart city, smart car, or connected car, health-care,

digital education, retail business, security and safety-related services, etc.) based on the 5G communication

technology and IoT-related techniques.

142. Method and apparatus for communication in wireless communication system

Date: 2018-11-27 | ID: 10142920

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The method includes receiving a first message including configuration information from a

base station, setting an establishment cause based on whether the first message includes a first indicator

indicating that a use of a value indicating a voice service as the establishment cause is requested, and

transmitting a second message including the establishment cause for a radio resource control (RRC)

connection request.

143. Education data platform to support a holistic model of a learner

Date: 2018-12-04 | ID: 10147335

Abstract: A computer-implemented holistic student performance management system for education is

provided for tracking, analyzing and reporting student data. The system identifies at-risk students and student

needs, and generates recommended interventions based on student's academic and non-academic

experience and needs to address these needs. The system enables tracking of the interventions, student

performance and behavior for all student populations.

144. Method and apparatus for reference signal configurations for CSI-RS port sharing in

mobile communication system using massive array antennas

Date: 2018-12-04 | ID: 10148334

Abstract: A communication method and system for converging a 5th-Generation (5G) communication system

for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of

Things (IoT) are provided. The present disclosure may be applied to intelligent services based on the 5G

communication technology and the IoT-related technology, such as smart home, smart building, smart city,

smart car, connected car, health care, digital education, smart retail, security and safety services. According

to embodiments of the present disclosure. The system includes a base station having a large number of

transmission antennas of a two dimensional (2D) antenna array structure can prevent excessive feedback

resource allocation for transmitting channel state information reference signals (CSI-RSs) and increase of

channel estimation complexity of a terminal, and the terminal can effectively measure channels of a large

number of transmission antennas and can report to the base station feedback information configured through

the measurement.

145. Method and apparatus for estimating position of terminal

Date: 2018-12-04 | ID: 10149107

Abstract: A method and apparatus for estimating a position of a terminal is provided. The method and

apparatus include a technique for a sensor network, a machine to machine (M2M), a machine type

communication (MTC), and Internet of things (IoT), and may be used for intelligent services based on the

technique (smart homes, smart buildings, smart cities, smart cars or connected cars, healthcare, digital

education, retail industry, and security and safety related services). The method includes identifying direction

information of a received signal if setting up connection between a terminal and an access point (AP),

receiving information about a barometric pressure sensor from the terminal, and calculating the position of

the terminal based on the direction information and the information about the barometric pressure sensor of

the terminal.

146. Method and apparatus for managing device using at least one sensor

Date: 2018-12-11 | ID: 10154427

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method of managing an electronic device is provided, which includes determining a

management target device, selecting at least one measurement device based on the determined

management target device, transmitting an operation command to the management target device, receiving

measurement information from the at least one measurement device, and determining a state of the

management target device based on the received measurement information.

147. Method and apparatus for improving handover success rate

Date: 2018-12-11 | ID: 10154444

Abstract: The present disclosure relates to a communication technique for combining a 5G communication

system for supporting a higher data transmission rate after a 4G system with IoT technology, and a system

thereof. The present disclosure can be applied to an intelligent service (for example, smart home, smart

building, smart city, smart car or connected car, health care, digital education, retail business, security and

safety-related service, and so on) on the basis of 5G communication technology and IoT related technology.

The present disclosure can provide a method for supporting a handover and a base station performing the

same. The method includes receiving a message including a Radio Link Failure (RLF) report for a terminal

from at least another base station, and determining whether a cell in which an RRC connection

reestablishment has been attempted by the terminal after the RLF is a cell that is suitable to serve the

terminal at a time of RLF occurrence on the basis of at least one of RRC connection setup indicator

information and the RLF report.

148. Method to view schedule interdependencies and provide proactive clinical process

decision support in day view form

Date: 2018-12-18 | ID: 10157355

Abstract: A system and method for use in managing and preparing for scheduled procedures that are

characterized as being interdependent and variable. The disclosed method enables schedule risk

management and provides a look-ahead capability along with process diagnostics to isolate specific assets

and tasks that can be managed to reduce schedule risk. The method facilitates review of upcoming tasks by

the process stakeholders for education as to where the schedule risks reside and in an emulation mode for

review and improved scheduling going forward. Clinical workflow is integrated such that process stakeholders

and assets are directed in such a way as to keep on, reduce delay risk or recover the schedule.

149. Method and system for presenting interactive, three-dimensional learning tools

Date: 2018-12-18 | ID: 10157550

Abstract: A system includes an education module (171) that is operable with, includes, or is operable to

control three-dimensional figure generation software (170). The education module (171) is configured to

present an educational three-dimensional object (181) on a display (132) upon detecting an educational flash

card (150) being disposed before a camera (130) that is operable with the education module (171). The

educational three-dimensional object (181) can correspond to a visible graphic (151) disposed on the

educational flash card (150) to provide an educational experience to a student.

150. Apparatus and method for zone management

Date: 2018-12-18 | ID: 10158714

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC),

machine-to-machine (M2M) communication, and technology for Internet of things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. An apparatus for zone management is provided. The apparatus includes a processor

configured to collect environment information of each zone of a plurality of zones, and determine an energy

efficiency level of each zone of the plurality of zones based on the environment information.

151. Apparatus and methods for tangible collaborative learning

Date: 2018-12-25 | ID: 10163369

Abstract: The present invention relates generally to a system and method that bring together the advantages

of computer games and the physical world to increase engagement, collaboration and learning. The system

and method can be used with a myriad of physical setups and can be used for many different content areas

in education. In one embodiment, a mixed reality interaction is facilitated with an EarthShake game presented

on a display. The game is synchronized with a tangible interface comprising a physical object and a sensor

capable of detecting a change in the condition of the physical object. The system and method help kids

discover scientific and other learning principles while experimenting with real objects in a physical

environment supported with audio and visual feedback. Students interactively make predictions, see results,

grapple with disconfirming evidence and formulate explanations in forms of general principles.

152. Method and apparatus for controlling scan period in wireless communication system

Date: 2018-12-25 | ID: 10165505

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC),

machine-to-machine (M2M) communication, and technology for internet of things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method includes determining whether a scan period of a first connectivity scheme is

changeable based on a service discovered during the scan period of the first connectivity scheme, if the scan

period of the first connectivity is changeable, detecting a state of a second connectivity scheme, and

changing the scan period of the first connectivity scheme based on the detected state of the second

connectivity scheme.

153. Method and system for synchronizing communication between nodes in a Bluetooth

network

Date: 2018-12-25 | ID: 10165622

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC), Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A method and an apparatus for synchronizing communication between nodes in a bluetooth low energy (BLE) mesh network. In the network, a node is configured to generates a seed value based on at least one of own transmission parameter, wherein the seed value indicates next data advertisement instance of corresponding node. Further, the seed value is used for communicating with other nodes (i.e. 1-hop neighbor nodes) in the network. Based on data transfer requirements of the node, the node synchronizes own data transmission and reception settings, such that no two nodes transmit data at the same time.

## 154. Temperature controlled containers

Date: 2019-01-01 | ID: 10165762

Abstract: Devices and methods are disclosed for the housing and maintenance of aquatic, semi-aquatic, and terrestrial organisms. Methods and device can be applied widely in the care and culture of these species and will find wide applicability in the aquaculture industry, aquarium and pet hobby, science instruction and education, environmental screening and toxicity testing, and the education-entertainment field.

# 155. Systems and methods for reducing recidivism among former inmates

Date: 2019-01-01 | ID: 10169739

Abstract: The present invention provides systems and methods for facilitating the integration of former inmates into society upon release from inmate facilities. A representative embodiment of the present invention allows participating inmates to utilize one or more pre-defined services during their period of incarceration. Utilization of these pre-defined services increases the participant's likelihood of rehabilitation, thus reducing recidivism. Examples of pre-defined services include identification, education, employment, financial, housing, and social connection services. A release package based upon information collected during use of these services also provides a personal dossier that facilitates criminal investigations, parole evaluations, probation determinations, and the like.

### 156. Method and apparatus for scheduling uplink data in mobile communication system

Date: 2019-01-01 | ID: 10172153

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. Provided are a method and apparatus for uplink scheduling in a mobile communication

system. The method of uplink scheduling for a user equipment (UE) in a mobile communication system may

include identifying the amount of data stored in a buffer, generating a scheduling request (SR), and

transmitting the SR to a base station (NB) on the basis of the identified data amount so that an uplink

resource is to be allocated from the NB.

157. Lifescore

Date: 2019-01-08 | ID: 10176233

Abstract: Methods and systems are disclosed that generate life scores for individuals based on various

information associated with the individuals. For example, life scores may be based on data associated with

several aspects of the individual's life, such as work, family, hobbies, education, etc. The life scores may be

generated in realtime and/or periodically and provided to the individual and/or shared with others in various

formats.

158. Device and method for scheduling machine-to-machine communication system

Date: 2019-01-08 | ID: 10178684

Abstract: The present disclosure relates to a technology for a sensor network, a machine-to-machine (M2M)

communication, machine type communication (MTC), and the Internet of things (IoT). The present disclosure

can be utilized for the intelligent service (a smart home, a smart building, a smart city, a smart car or a

connected car, healthcare, digital education, a retail business, a security and safety-related service or the

like) on the basis of the technology. Embodiments of the present invention provide a device and a method for

minimizing an overhead of a mobile communication network in a machine type communication (MTC) system

and minimizing power consumption in devices for MTC. According to an embodiment of the present

invention, a base station device of a mobile communication network for M2M communication comprises: a

transceiver for transmitting and receiving a signal to/from a leader device among a plurality of devices for

M2M communication; and a control unit for transmitting, to the reader device, a downlink control signal

through the transceiver in at least one predetermined interval within a scheduling interval and receiving, from

the reader device, an uplink signal through the transceiver at a specific time point determined from the

predetermined interval within the scheduling interval.

159. Method and apparatus for communication in cellular IoT network

Date: 2019-01-22 | ID: 10187111

Abstract: The present disclosure relates to a communication scheme and system which fuse a 5G communication system for supporting a higher data transfer rate than a 4G system with IoT technology, and a system thereof. The present disclosure may be applied to smart services such as smart homes, smart buildings, smart cities, smart cars or connected cars, healthcare, digital education, retail businesses, security and safety services, etc., based on 5G communication technologies and IoT related technologies. The communication method with a device according to the present invention comprises the steps of: transmitting information on frequency hopping settings to the device; and receiving, from the device, an uplink signal which hops frequencies according to the frequency hopping settings, wherein the frequency hopping settings are configured in a way that the uplink signal hops frequencies according to hopping patterns which hop according to frequency hopping steps, and to additional mirroring hopping patterns which are respectively inserted between the hopping patterns.

# 160. Shape-matrix geometric instrument

Date: 2019-02-12 | ID: 10204530

Abstract: Shape-matrix geometric instruments having numerous applications including, but not limited to, anti-counterfeiting, graphical passwording, games, and geometry education. A shape-matrix geometric instrument is a manufacture and/or a method whose design is based on a shape-matrix that, in turn comprises a set of building blocks that are N-dimensional polytopes. Corner shapes are positioned in or near the interior corner spaces of at least ones of the shape-matrix building blocks. At least ones of the corner shapes differ from others in at least one property or aspect including, for example, geometric shape, orientation within the building block, and one or more surface finishes, such as color, shading, cross-hatching or real or apparent texture.

#### 161. Facilitating a meeting or education session

Date: 2019-02-19 | ID: 10212542

Abstract: Methods include receiving location data of a location associated with a meeting, and receiving check-in information from a member's device associated with a member in an audience. The meeting has a leader. A geo-fence is set, based on the location associated with the meeting. The member's device is determined whether it is within the geo-fence using at least one of (a) using a location sensor disposed within the member's device; and (b) identifying a locatable device that has a known location and that is connected to or nearby the member's device. Feedback from a plurality of devices associated with a group of members of the audience is collected, each one of the plurality of devices having its location determined as to whether it is within the geo-fence using at least one of (a) or (b) in conjunction with the collecting of feedback. The feedback is sent to the leader's device.

162. Method of determining the proximity of UE in D2D communication network

Date: 2019-02-19 | ID: 10212673

Abstract: The present disclosure may be applied to intelligent services based on the 5G communication

technology and the IoT-related technology, such as smart home, smart building, smart city, smart car,

connected car, health care, digital education, smart retail, security and safety services. The present invention

describes a method of determining proximity of an entity in a device to device (D2D) communication network.

The method comprises receiving by a first entity, a message from a second entity, ascertaining by the first

entity, a first power information of a signal at which the message being received at the first entity, determining

by the first entity, a second power information of the signal at which the message being transmitted by the

second entity, determining by the first entity, path loss based on processing the first power information and

the second power information, and determining by the first entity, the proximity of the second entity from the

first entity based on the determined path loss.

163. Method and apparatus for providing services of network to terminal by using slice

Date: 2019-02-26 | ID: 10219193

Abstract: The present disclosure relates to a communication technique of fusing a 5G communication system

for supporting higher data transmission rate beyond a 4G system with an IoT technology and a system

thereof. The present disclosure may be applied to intelligent services (e.g., smart home, smart building, smart

city, smart car or connected car, health care, digital education, retail business, security and safety related

service, or the like) based on the 5G communication technology and the IoT related technology. A

communication method of a CCNF comprises detecting a CCNF relocation necessity situation, determining a

new CCNF, and transmitting a CCNF relocation request message including information on a terminal being

served by the CCNF to the new CCNF The method further comprises receiving a CCNF relocation response

message from the new CCNF, and performing a location update procedure with the terminal according to a

predetermined condition.

164. Apparatus and method for link setup in wireless communication system

Date: 2019-02-26 | ID: 10219200

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. Link setup using different Radio Access Technologies (RATs) in a wireless communication

system is provided. A method for operating a device supporting a first RAT and a second RAT includes

sending information notifying a discovery interval start time for the second RAT, using the first RAT, and

sending discovery signals during the discovery interval using the second RAT.

165. System for driver's education

Date: 2019-03-05 | ID: 10222228

Abstract: Systems and methods are disclosed for educating vehicle drivers. Auto insurance claim data may

be analyzed to identify hazardous areas associated with an abnormally high amount or severity of vehicle

collisions. A virtual navigation map of roads within the hazardous areas may be built or generated. A common

cause of several vehicle collisions at a hazardous area may be identified, and a virtual reconstruction of a

scenario involving the common cause and/or a road map of collisions locations of may be created. The virtual

reconstruction of the scenario may be displayed on a driver education virtual simulator to enhance driver

education and reduce the likelihood of vehicle collisions.

166. Contemporaneous capture and tagging of media evidence for education evaluation

Date: 2019-03-05 | ID: 10223927

Abstract: An educational evidence and evaluation system for generating media files and context parameters

and linking the media files and context parameters to education profiles during evaluation of a subject is

disclosed. An example educational evidence and evaluation system comprises a capture engine that

captures two media files, a context engine that tags the media files with context parameters, and a linking

engine that links the media files and their tagged context parameters to an education profiles of a subject,

wherein the evaluation engine links a first media file and its first context parameter to the education profile of

a first subject before the capture engine captures a second media file.

167. Apparatus and method of providing a coding education service using a block

Date: 2019-03-12 | ID: 10228914

Abstract: An apparatus and a method of providing coding education service using blocks are disclosed. The

apparatus comprises a plurality of block disposition members configured to have unique coordinate, a main

controller configured to identify plural coding blocks disposed on the block disposition members, and a

communication module configured to transmit identification information and location information of each of

the coding blocks to the user terminal to determine whether or not the coding blocks are disposed according

to coding mission information displayed on a screen of the user terminal.

168. Method and apparatus for channel status information feedback in mobile

communication system

Date: 2019-03-12 | ID: 10230441

Abstract: A communication method and a system for converging a 5th-generation (5G) communication

system for supporting higher data rates beyond a 4th-generation (4G) system with a technology for internet of

things (IoT) are provided. The present disclosure may be applied to intelligent services based on the 5G

communication technology and the IoT-related technology, such as smart home, smart building, smart city,

smart car, connected car, health care, digital education, smart retail, security and safety services. A method

and an apparatus for transmitting cell status information (CSI) in a mobile communication system are

provided. The method includes receiving configuration information for a plurality of channel status information

reference signals (CSI-RSs), generating feedback information by measuring at least one of the CSI-RSs

based on priority information, and transmitting the feedback information. The priority information is associated

with a non-precoded CSI-RS, a cell-specific beamformed CSI-RS and a user equipment (UE)-specific

beamformed CSI-RS.

169. Method and apparatus for transmitting diversity

Date: 2019-03-12 | ID: 10230446

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. According to a method for transmitting diversity, implemented at a transmitting end,

space-time precoding is performed for a digital signal to obtain at least two coded signal streams, and then

each coded signal stream is transmitted using a respective transmitting and receiving unit (TXRU) equipped

with a multi-antenna array, in which an antenna array weight used by the respective TXRU to transmit each

coded signal stream is one of two sets of antenna array weights, and at least two TXRUs use two different

sets of antenna array weights. The present disclosure also discloses a corresponding transmitter. With the

present disclosure, transmitting diversity may be realized in a large-scale antenna system.

170. Method and apparatus for transmitting information related to a reference signal

Date: 2019-03-12 | ID: 10230508

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The method for transmitting/receiving signals in a mobile communication system according to

an embodiment of the present invention includes: receiving control information; obtaining information related

to the orthogonal cover code (OCC) length, based on the received control information; and receiving a

reference signal, based on the information related to the OCC length. In a mobile communication system

according to embodiments of the present invention, the base station transmits information related to a

reference signal to a terminal, and the terminal receives the reference signal based on the received

information, thereby improving the performance of channel estimation.

171. System and method of paging in next generation wireless communication system

Date: 2019-03-12 | ID: 10231208

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. An apparatus and method are provided for transmitting/receiving a paging message in a next

generation communication system.

172. Modular education, entertainment and toy block

Date: 2019-03-19 | ID: 10232280

Abstract: The invention relates to a modular education and toy block having at least one piece 10 having a

body (11), a jointer (20) working with comb fitting principle (finger joint), having recesses and/or protrusions

that each of them is in triangular on at least one surface of the joinder (20) which is appropriate to form new

pieces (10) by combining the piece (10) with another piece (10).

173. Registration management method for terminal accessing 5G network on non-3GPP

access

Date: 2019-03-19 | ID: 10237681

Abstract: A communication technique of fusing a fifth generation (5G) communication for supporting higher

data transmission rate beyond a fourth generation (4G) system with an Internet of things (IoT) technology and

a system thereof is provided. The technique may be applied to an intelligent service (smart home, smart building, smart city, smart car or connected car, health care, digital education, retail business, security and safety related service, or the like) based on the 5G communication technology and the IoT related technology. A method is provided for effectively managing a registration state for a terminal in a 5G core network such as an access and mobility management function (AMF) in a situation of accessing a 5G network via a non-3rd generation partnership project (3GPP) access.

# 174. Method of performing cell selection and re-selection using PMAX parameters and system adapted thereto

Date: 2019-03-19 | ID: 10237813

Abstract: The present disclosure relates to a communication method and system for converging a 5th Generation (5G) communication system for supporting higher data rates beyond a 4th Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. A cell selection/re-selection method and an apparatus adapted thereto is provided. The cell selection method of a terminal includes: receiving, from a base station, first maximum power information, PEMAX1 and second maximum power information, PEMAX2, related to maximum transmission power levels of the terminal on the uplink; calculating a compensation parameter, Pcompensation, related to uplink transmission power of the terminal, using the first maximum power information and the second maximum power information; calculating a cell selection reception level value, Srxlev, using the compensation parameter; and selecting a cell based on the calculated cell selection reception level value.

## 175. Method and apparatus for managing resources for D2D communication

Date: 2019-03-19 | ID: 10237912

Abstract: The present disclosure relates to a communication method and system for converging a fifth generation (5G) communication system for supporting higher data rates beyond a fourth generation (4G) system with a technology for Internet of Things (IoT). The present disclosure applies to intelligent services based on 5G communications technology and IoT related technology, such as a smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, and security and safety services. A method for managing resources for Device to Device (D2D) communication includes: establishing a radio connection with an evolved NodeB (eNB); receiving allocated resources for D2D communication from the eNB through the radio connection; performing the D2D communication by using the allocated resources

in an idle state after the radio connection is released; and responsive to receiving a message from the eNB

indicating a release of the allocated resources, releasing the allocated resources.

176. Apparatus and method for profile installation in communication system

Date: 2019-03-26 | ID: 10244384

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method of providing a profile package by a profile server and the profile server includes

generating a profile package, dividing the profile package in a unit installable in a UICC of an electronic

device, reconfiguring the divided profile information in an encryptable unit, and transmitting the reconfigured

profile information to the electronic device. Further, provided is an operating method and apparatus of an

electronic device communicating with the profile server.

177. Apparatus and method for transmitting/receiving power transmitting unit presence

information in wireless charging network

Date: 2019-03-26 | ID: 10244462

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC),

machine-to-machine (M2M) communication, and technology for internet of things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method for transmitting power transmitting unit (PTU) presence information is provided.

The method includes receiving an advertisement message from a power receiving unit (PRU); determining

whether a current state is a state that power is supplied to a resonator; and outputting PTU presence

information indicating that a PTU exists, or transmitting the PTU presence information to a management

server, if the current state is the state that the power is not supplied to the resonator.

178. Systems and methods providing enhanced education and training in a virtual reality

environment

Date: 2019-04-02 | ID: 10249215

Abstract: Virtual reality arc welding systems that provide virtual reality simulations for training purposes.

Virtual reality welding systems to aid in training welding students may provide a programmable

processor-based subsystem, a rendering engine, an analysis engine, and recommended corrective actions

based on virtual testing results.

179. Apparatus and method for scheduling packet in communication system

Date: 2019-04-02 | ID: 10250518

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC),

machine-to-machine (M2M) communication, and technology for internet of things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method for scheduling a packet in a communication node in a communication system is

provided. The method includes detecting a parameter value of a parameter related to a delay characteristic

that is related to at least one packet; comparing the detected parameter value and a preset threshold

parameter value; determining a priority for the at least one packet based on the compared result; and

transmitting the at least one packet corresponding to the determined priority.

180. Account sharing prevention and detection in online education

Date: 2019-04-02 | ID: 10250614

Abstract: An application delivers educational, entertainment or work-related content including videos and

documents to any computing device of a user via an account, each account being uniquely identified. Upon

each login, the application checks whether the user is already logged in on another computing device and

issues a warning or logs out the new device. The application also checks all user accounts periodically to

determine whether one account is logged into more than one computing device. Each video or document is

associated with a course and has a corresponding course code. An institution database lists courses that a

student is currently enrolled in. Another database records videos watched or documents viewed via a student

account. Each student account is allowed a maximum number of courses or is limited by the courses in which

they are actually enrolled. The application checks whether the videos watched correspond to more than the

courses allowed and if so, then access by the student account is blocked.

181. Apparatus and method for providing service in wireless communication system

Date: 2019-04-02 | ID: 10251113

Abstract: Disclosed is a sensor network, machine type communication (MTC), machine-to-machine (M2M)

communication, and technology for Internet of Things (IoT), and is applicable to intelligent services such as

smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail,

security and safety services. An access point (AP) includes a controller that generates a neighbor AP information message including location information of neighbor APs, and a transmitter that transmits the neighbor AP information message including a field indicating that a type of a currently transmitted message includes location information, a length field indicating a length of fields located after the length field in the currently transmitted message, and a location information field indicating location information of each of the neighbor APs.

# 182. Method for supporting efficient PDU session activation and deactivation in cellular networks

Date: 2019-04-02 | ID: 10251147

Abstract: The present disclosure relates to a communication method and system for converging a 5G communication system for supporting higher data rates beyond a 4G system with an IoT technology. The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. The present disclosure provides a scheme for efficiently operating an UP connection of a session in case where a terminal has a plurality of sessions in a mobile communication system, such as a 5G system, having a network structure in which an AMF for mobility management and an SMF for session management are separated from each other. Through the present disclosure, a terminal (UE) can optimize a non-access stratum (NAS) signaling message, and can perform data transmission/reception with low latency.

## 183. Method and apparatus for wireless communication in wireless communication system

Date: 2019-04-09 | ID: 10254413

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. The vehicle-to-everything (V2X) communication method by a terminal in a wireless communication system includes transmitting, to a base station, a first message including assistance information associated with a semi-persistent scheduling (SPS) for the V2X communication, receiving, from the base station, a third message including downlink control information (DCI) associated with

activation of the SPS for the V2X communication, and transmitting, to another terminal, data based on the

SPS configuration information and the DCI.

184. Method and apparatus for controlling operation based on distance between

transmission device and reception device

Date: 2019-04-09 | ID: 10256928

Abstract: A pre-5th-Generation (5G) or 5G communication system is provided for supporting higher data rates

Beyond 4th-Generation (4G) communication system such as Long Term Evolution (LTE). A method of

transmitting a beacon signal and a device using the same are provided. The method includes configuring

beacon-related information; generating a beacon signal based on the configured beacon-related information;

and transmitting the beacon signal, wherein the beacon-related information includes at least one piece of

mode information corresponding to distance information between a beacon transmitting device and at least

one beacon receiving device. The present disclosure relates to a sensor network, machine type

communication (MTC), machine-to-machine (M2M) communication, and technology for Internet of Things

(IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as

smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail,

security and safety services.

185. Structure of MAC sub-header for supporting next generation mobile communication

system and method and apparatus using the same

Date: 2019-04-09 | ID: 10257747

Abstract: A communication technique of fusing a fifth generation (5G) communication system for supporting

higher data transmission rate beyond a fourth generation (4G) system with an Internet of things (IoT)

technology and a system thereof are provided. The communication technique may be used for an intelligent

service (for example, a smart home, a smart building, a smart city, a smart car or a connected car, health

care, digital education, a retail business, a security and safety related service, or the like) based on the 5G

communication technology and the IoT related technology. A method for defining media access control

(MAC) sub-header structures suitable for a next generation mobile communication system and applying the

MAC sub-header structures to provide a high data transmission rate and a low latency in the next generation

mobile communication system is provided.

186. Structure of MAC sub-header for supporting next generation mobile communication

system and method and apparatus using the same

Date: 2019-04-09 | ID: 10257748

Abstract: A communication technique of fusing a fifth generation (5G) communication system for supporting higher data transmission rate beyond a fourth generation (4G) system with an Internet of things (IoT) technology and a system thereof are provided. The communication technique may be used for an intelligent service (for example, a smart home, a smart building, a smart city, a smart car or a connected car, health care, digital education, a retail business, a security and safety related service, or the like) based on the 5G communication technology and the IoT related technology. A method for defining media access control (MAC) sub-header structures suitable for a next generation mobile communication system and applying the MAC sub-header structures to provide a high data transmission rate and a low latency in the next generation mobile communication system is provided.

## 187. Device and method for controlling standby power of mobile terminal

Date: 2019-04-09 | ID: 10257785

Abstract: Disclosed are: a communication technique combining, with IoT technology, a 5G communication system for supporting a data transmission rate higher than that of a 4G system, and subsequent systems; and a system therefor. The disclosed communication technique and system therefor can be applied to intelligent services (for example, services related to a smart home, a smart building, a smart city, a smart car or a connected car, health care, digital education, retail business, security, safety and the like) on the basis of 5G communication technology and IoT-related technology. A method for controlling standby power of a mobile terminal, of the present invention, comprises: detecting applications and services related to a background operation; classifying the detected applications and services according to characteristics; predicting use patterns for the applications and the services classified by the characteristics, in consideration of a user response to the applications and the services classified according to the characteristics; and controlling the applications and the services classified by the characteristics, on the basis of the applications and the services classified by the characteristics and the predicted use patterns.

# 188. Apparatus and method for installing electronic device in wireless communication system

Date: 2019-04-09 | ID: 10257865

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC), Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the above technologies, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The present disclosure provides an apparatus and a method for installing an electronic

device in a wireless communication system. A method for operating a first electronic device includes

obtaining location information of the first electronic device, and sending the location information of the first

electronic device to a system controller to operate a second electronic device to be paired with a third

electronic device located near the first electronic device, in a pairing mode.

189. Method, system and apparatus for dynamic registry of books and for modeling real-time

market demand for books within academic sectors

Date: 2019-04-16 | ID: 10262040

Abstract: A system provides a connection between education administration, particularly as such

administration assigns or selects books, and the marketing and use of those books. Such marketing and use

of those books and information related to those books can include, without limitation, consumer product

information, the publishing industry and specifically book publishing, and market analysis, analysis of data,

markets, demand and supply chain and inventory management.

190. Method and apparatus for reporting periodic channel state information in mobile

communication system using massive array antennas

Date: 2019-04-16 | ID: 10263681

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The present disclosure proposes a method and an apparatus for determining channel state

information (CSI) to be reported according to a plurality of channel state reporting priority if periodic channel

state information reporting collide with each other, and reporting the channel state information.

191. Method and apparatus for providing web services

Date: 2019-04-23 | ID: 10270836

Abstract: The present disclosure relates to a communication method and system for converging a

5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G)

system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent

services based on the 5G communication technology and the IoT-related technology, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. The method and apparatus provide information on traffic of a user equipment in a mobile

communication system to an operator's network or to a third server. An operator can operate a proxy and

may inspect and control a hypertext transfer protocol over secured layer (HTTPS) traffic through the proxy to

collect HTTPS traffic relevant information.

192. Resume management and recruitment workflow system and method

Date: 2019-04-30 | ID: 10275741

Abstract: A computer system and method for managing access to a resume database. For each skill or

experience-related phrase in a resume, the system computes a term of experience based on an experience

range associated with a contextual use of the phrase in the resume. The term of experience for a phrase that

occurs multiple times in the resume is the summation of the term of experience for each occurrence of the

phrase associated with a different contextual use. The system stores each phrase and the term of experience

in a parsed resume. The resume database also stores job descriptions that include required phrases and a

required term of experience for each required phrase. The job descriptions also store a required level of

education or field of specialization, and a required salary range. A recruiter searches the resume database to

find matching resumes that satisfy a job description.

193. Apparatus and method for alarm service using user status recognition information in

electronic device

Date: 2019-04-30 | ID: 10276010

Abstract: The present disclosure relates to a sensor network, Machine Type Communication (MTC),

Machine-to-Machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure may be applied to intelligent services based on the above technologies, such as smart home,

smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and

safety services. A method and an apparatus for alarm service using user status recognition information in an

electronic device is provided. The method of electronic device includes determining a rule for eliminating a

fire danger of at least one device capable of communicating with the electronic device, determining the fire

danger of the at least one device based on the rule, and if the fire danger exists, notifying the fire danger to a

user.

194. Apparatus and method for executing task of electronic device

Date: 2019-04-30 | ID: 10277712

Abstract: The present disclosure relates to a sensor network, machine type communication (MTC),

machine-to-machine (M2M) communication, and technology for Internet of Things (IoT). The present

disclosure provides intelligent services based on a variety of technologies, such as a smart home, a smart

building, a smart city, a smart car, a connected car, a health care, a digital education, a smart retail, security

and safety services. An apparatus and method for executing a task of an electronic device are provided. The

apparatus includes a communication interface configured to receive state information associated with the

electronic device from the electronic device, and a processor configured to determine whether to execute a

specific task in the electronic device or a mobile terminal based on the state information about the electronic

device and state information about the mobile terminal, and to indicate a result of the determination to the

electronic device through the communication interface.

195. Multimedia apparatus, online education system, and method for providing education

content thereof

Date: 2019-05-07 | ID: 10283004

Abstract: A multimedia apparatus and a method for providing content thereof are provided. In the method for

providing content of the multimedia apparatus, user private information corresponding to authentication

information of a user is acquired when the authentication information of the user for execution of content is

received, a state of the user using at least one sensor is detected during reproduction of the content, a

parameter of the content is changed according to the acquired private information and the state of the user,

and the content is reproduced with the changed parameter.

196. Thoracic cavity simulator

Date: 2019-05-07 | ID: 10283016

Abstract: Provided is a thoracic cavity simulator that, for the purpose of training or education in thoracic cavity

microscopic surgery, faithfully reproduces the shape and feel of a human body and that can simulate a

surgical environment for a human body that has multiple constraints. A device that comprises a model human

skeleton that simulates at least ribs, and comprises a casing that houses the model human skeleton, the

device being configured such that an opening is provided to a rib section of the casing, such that a diaphragm

section can be opened and closed, and such that model organs can be housed inside the ribs of the model

human skeleton. The diaphragm section is configured so as to be removable and/or openable and closable,

and the model organs housed inside the ribs of the model human skeleton are replaced.

197. Method for implementing control of display of highlighted area on display

Date: 2019-05-14 | ID: 10290100

Abstract: This invention discloses a method to control highlighting of certain part of image on a display,

wherein the image processing unit forwards the physical coordinates acquired by the host computer's coordinate acquisition unit to the coordinate transmission unit, and draws a regular shape centered on the acquired physical coordinates, and then displays the area within the regular shape at the normal brightness, and the rest outside the area at the corresponding proportion of low brightness. According to the method of the present invention, the attention of the doctor is focused on the specific or targeted area, the interferences caused by the surrounding images and the brightness are shielded, and the images in the specific pattern area is easier to identify. Thus, it will help doctors to improve the efficiency and accuracy of medical diagnosis for a lesion and make medical consultation and education more convenient.

# 198. Method and system for minimizing channel preservation time in cellular communications on un-licensed band

Date: 2019-05-14 | ID: 10291445

Abstract: The present disclosure relates to a communication method and system for converging a 5th-Generation (5G) communication system for supporting higher data rates beyond a 4th-Generation (4G) system with a technology for Internet of Things (IoT). The present disclosure may be applied to intelligent services based on the 5G communication technology and the IoT-related technology, such as smart home, smart building, smart city, smart car, connected car, health care, digital education, smart retail, security and safety services. Method and system for minimizing channel preservation time in a cellular communication network. The system, after channel sensing and if the channel is free, dynamically determines a Preservation Signal (PS) value, and then adjusts the channel preservation time, based on the determined PS value. The system can minimize the channel preservation time, by restarting data transmission upon detecting a symbol boundary, while the data transmission is in progress.

# 199. Method and apparatus for transmitting and receiving data between terminal and base station in mobile communication system

Date: 2019-05-14 | ID: 10291450

Abstract: The present disclosure relates to a communication technique for converging a 5G communication system for supporting a higher data rate beyond a 4G system with an IoT technology, and a system therefor. The present disclosure can be applied to intelligent services (for example, smart home, smart building, smart city, smart car or connected car, healthcare, digital education, retail, security and safety-related service, and the like) on the basis of a 5G communication technology and an IoT-related technology. The present invention relates to a method for transmitting and receiving data, and a method for receiving data by a terminal according to the present invention comprises: receiving, from a base station, a random sequence

generation parameter for generating a random sequence including a random variable in a first band; generating the random sequence using the received parameter; and performing decoding on the basis of the random variable included in the random sequence in a second band.

## 200. Resume management and recruitment workflow system and method

Date: 2019-05-21 | ID: 10296872

Abstract: A computer system and method for managing access to a resume database. For each skill or experience-related phrase in a resume, the system computes a term of experience based on an experience range associated with a contextual use of the phrase in the resume. The term of experience for a phrase that occurs multiple times in the resume is the summation of the term of experience for each occurrence of the phrase associated with a different contextual use. The system stores each phrase and the term of experience in a parsed resume. The resume database also stores job descriptions that include required phrases and a required term of experience for each required phrase. The job descriptions also store a required level of education or field of specialization, and a required salary range. A recruiter searches the resume database to find matching resumes that satisfy a job description.