

글로벌 ICT 표준 컨퍼런스 2023

Global ICT Standards Conference 2023

(세션3) 표준특허와 AI/빅데이터와의 만남

AI 모델 및 빅데이터 분석을 활용한 표준특허 예측 및 필수성 검증 기법

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주최



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Ministry of Science and ICT



특허청
Korean Intellectual
Property Office

주관



국립전파연구원
National Radio Research Agency



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03 AI 및 빅데이터를 이용한 표준특허 필수성 검증 기법

About presentation

표준특허와 AI/빅데이터와의 만남

ICT Standards

본 세션은 수많은 글로벌 표준특허를 분석하기 위해 다양한 기법이 진행되고 있는데,
그 중에 AI 및 빅데이터를 이용하여 표준특허의 가능성을 예측하고,
표준특허의 사용성을 검토하기 위한 필수성 검증을 방안을 제안합니다.

01. 표준특허의 중요성 및 활용 증가

표준특허의 중요성 및 활용 가능성

“ 표준특허에 대한 확보 및 분석에 대한 필요성이 요구됨 ”



휴대폰 접은 LG전자, 해외서 LTE
표준특허 로열티 받는다

앞마 전에 노키아 및 엘립 등 51개 회사로 구성된
제와 통신 표준특허(SEP, Standard-Essential
한데치고를과도 이미 같은 내용의 라이선스 개
통신(표준특허)는 자원에 탑재되는 자동문인, 자
의 입수(취득) 등에 관한 것.
지난해 다임과 벤츠와 노키아가 이동통신 표준
특허 소송 심판도 이에 영향을 미쳤다고 본다.



표준특허의 활용 및 중요도 증가



기관 보유 특허에 대한
표준특허 현황 파악 X

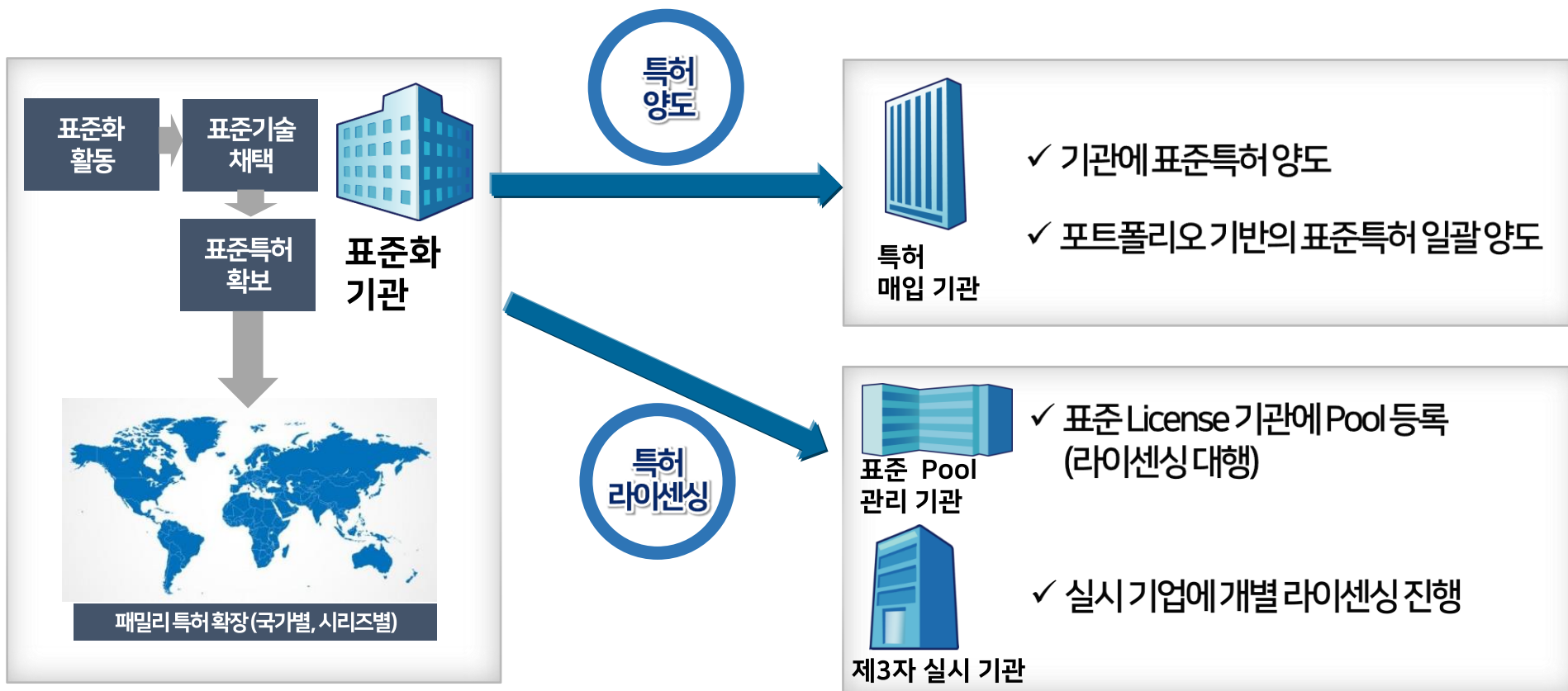


기관 보유 특허에 대한
표준특허 가능성 파악 어려움

표준특허의 중요성 및 활용성은 높지만,
기업, 연구소, 학교 등의 기업에서 표준특허의 분석 및 검토가 어려움

02. 표준특허의 활용 및 수익화

- 표준특허로 수익화하기 위해서 표준특허의 현황 파악이 중요함 (특허 포트폴리오 구축)
- 표준특허가 활용되기 위해서는, 사전적으로 표준특허의 필수성 요건 만족 여부를 검토하는 것이 필요함



03. 표준특허의 정의



협정의 표준 특허: 표준 기술에 필수적(essential)인 구성을 포함하는 청구항을 포함하는 등록 특허

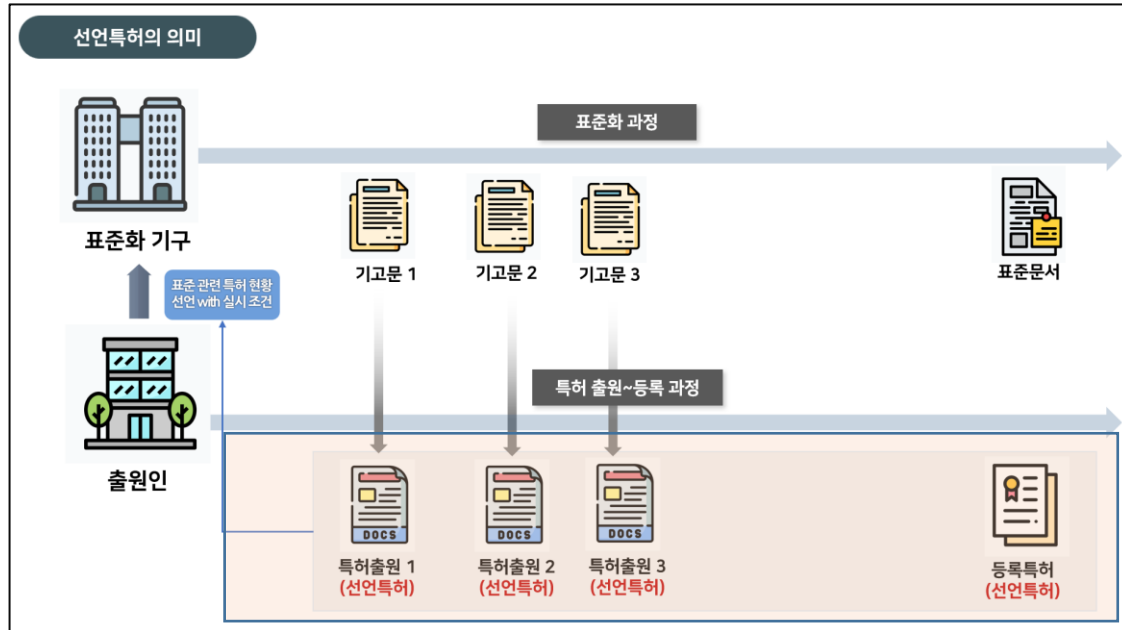
광의의 표준 특허: 표준화 과정에서 각 기관들이 제출한 기술과 연계하여 제출한 특허(출원/등록)

표준특허는 특허법상 규정 X → 실무적으로 등재특허, 선언특허로 구분되기도 함

표준특허의 인정은 특허청에서 수행 X → 사용처에 따라 다름 (법원, 표준 Pool 운영 기관 등)

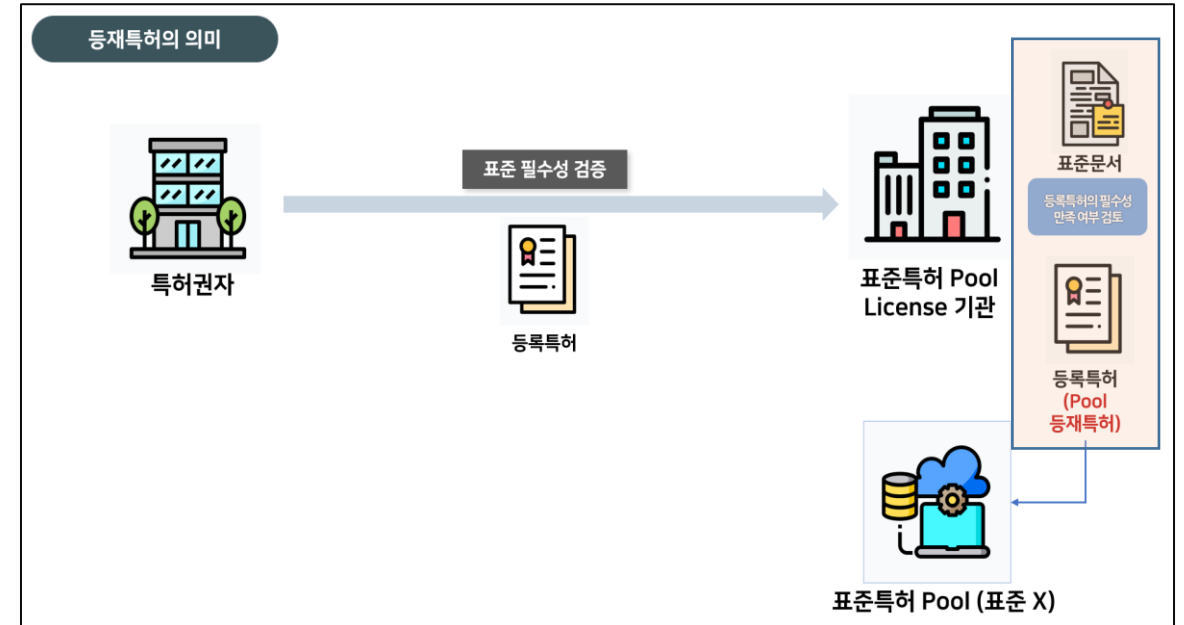
표준 기술에 따라 제품 제작/서비스 실행 → 해당 표준과 매칭된 표준특허의 침해로 연결

04. 표준특허의 구분 (선언특허 & 등재특허)



선언특허

- ✓ 표준화 참여 기관이 표준화 과정에서 진행한 특허출원/등록 등을 표준화 기구에 선언한 특허
- ✓ 광의의 의미의 표준특허 → 표준화 과정의 결과물
- ✓ 표준화 과정에서 제안한 기술의 표준 채택과 무관



등재특허

- ✓ 표준특허 Pool 라이선스 기구가 관리하는 표준특허 Pool에 등재된 등록 특허
- ✓ 시장에서 중요한 기술에 대해 표준특허 Pool 생성
- ✓ 표준문서에 반영된 표준 기술에 매칭되어야 함 (필수성 만족)

05. 표준특허 데이터 제공 (keyword)

키워드만의 '지능형 수집기술'을 통한
'전세계 표준특허' 데이터 통합 제공



- ✓ 전세계 다양한 표준화기구에 선언된 특허와 특허를 등재 특허 한번에 확인
- ✓ 표준화기구, 기술, 선언자 등으로 표준특허 필터링

신규 표준특허 확보
기존 표준특허 라이선싱 전략 수립

표준특허 검색 항목

- 표준화기구
- 표준정보
- 표준번호
- 표준기술명
- 선언(등재)자 국적
- 선언(등재)자
- 선언(등재)일

검색결과 총 5,246건

전체 (17) US (17)

종류 전체(17) | 특허등록(17)
상태 active(16) | 등록(16) | inactive(1) | 요청(1)

keywert

50개의 보기

No	원문 KEY	문헌번호	문헌일	출원번호	출원일	상태	발명의 명칭	해당 IPC
1		US 8073114 B2	2011.12.06	10/95859	2005.03.23	등록	Message handling (메시지 통신 처리)	H04M-011/00
2		US 8072966 B2	2011.12.06	11/408173	2006.04.21	등록	Communication mode controlling method, mobile communication system, radio network controller, base station, and mobile communication terminal (통신 모드 제어 방법, 이동 통신 시스템, 무선 네트워크 제어기, 기지국, 그리고 이동 통신 장비 포함)	H04L-012/28
3		US 8073445 B2	2011.12.06	11/524186	2006.09.21	등록	Method for determining if a first cell managed by a first base station is neighbour of a second cell managed by a second base station (제1 베이스 스테이션에 의해 관리되는 제1 셀이 주변에 제2 기지국에 의해 관리되는 제2 셀과 인접한 셀인지 확인 방법)	H04W-036/00
4		US 8072920 B2	2011.12.06	11/789029	2007.04.23	등록	Method for signaling resource assignment information in a frequency division multiple access system (FDMA) (다중 접속 시스템의 신호 자원 할당 정보를 위한 방법)	H04B-007/212
5		US 8072930 B2	2011.12.06	11/796007	2007.04.25	등록	Communication unit, system and method for saving power therein (그 가운데서 전력을 절약하기 위한 통신 단위, 시스템 및 방법)	H04W-004/00
6		US 8072923 B2	2011.12.06	11/886976	2006.03.23	등록	Packet radio network and method (패킷 무선 통신망과 방법)	H04W-004/00
7		US 8074143 B2	2011.12.06	11/974381	2007.10.12	등록	Direction, avoidance and/or correction of problematic puncturing patterns in parity bit streams used when implementing turbo codes (구현되는 터보 코드가 문제점을 일으키는 패리티 비트 스트림의 방향, 회피 및/또는 교정 방법)	H03M-013/00
8		US 8072961 B2	2011.12.06	11/979020	2007.10.30	스망	High rate packet data transmission system (높은 비율 패킷 데이터 전송 시스템)	H04B-001/18
9		US 8072918 B2	2011.12.06	12/062349	2008.04.09	등록	Network-based inter-call power control for multi-channel wireless networks (다중 채널 무선망에 대한 네트워크 기반 상호 호출 전력 제어)	H04B-007/204

SEP

결과리스트의 발명의 명칭 앞 마크 표시

05. 표준특허 데이터 제공 (keyword)

일반검색

선행조사용검색

번호검색

미국소송검색 Beta

K WORK

송원감님

CS LAB

15개국 전문검색 91개국 초특검

최근검색

IP5 최근 20년 특허

표준특허 검색

검색 조건 설정

국가

☒ 한국
 ☒ 일본 +
 ☒ 미국 +
 ☒ 유럽
 ☒ 중국
 ☒ PCT
 ☐ 독일
 ☐ 대만
 ☐ 프랑스
 ☐ 러시아
 ☐ 영국
 ☐ 캐나다
 ☐ 호주
 ☐ 이탈리아
 ☐ 인도

종류

☒ 특허공개
 ☒ 특허등록
 ☒ 실용공개
 ☒ 실용등록
 ☐ 재발행
 ☐ 식물 (US)
 ☐ 디자인 (US,TW)

기간

☒ 전체
 ☐ 최근
 년
 YYYMMDD ~ YYYMMDD

상태

☒ active
 ☐ inactive

기본검색

연산검색

검색연산자

국가별 번호형식

특허분류코드

☒ 명칭+요약+특립항

×

Q

AI 검색식 자동 확장

검색 필드 보기

☐ 결과 내 검색

검색 히스토리

최근 본 특허

5개씩 보기

No	검색일시	검색식	건수	K Topics	K Technologies
1	2023-10-31 05:20:52	SEC:(ISO OR ITUT OR ITUR OR IEC OR ISIE OR IEEE OR ATSC OR ETSI OR MPEG OR SIS OR ACC OR VIA OR WPC) 검색조건 >	총 572,647건 US (164,060) CN (113,477) EP (96,405) WO (70,906)	communication wireless transmission signal network 통신 transmit terminal channel mobile	디지털정보 전송 전기통신용 전송 무선통신네트워크

06. 표준특허에 대한 업무 니즈

Needs

우리 기업이 보유하고 있는 특허들 중 표준특허 현황은?

보유 특허들 중 표준특허 가능성이 있는 특허들은?

보유 특허들 중 표준 필수성을 만족하는지 여부는?

표준특허의 침해 공격을 받은 경우, 실제로 표준특허인지?

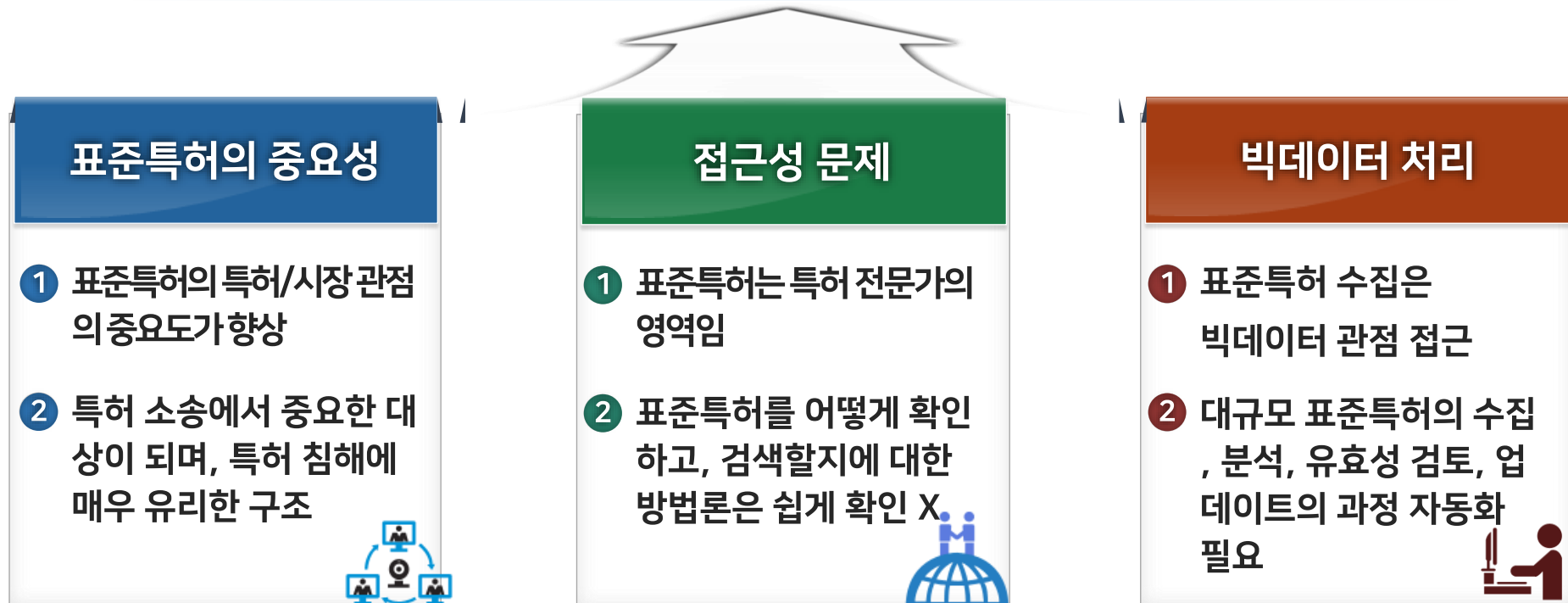
수익화를 위해 표준특허를 보유한 기업은 어디인지?

- 표준특허 정보 없이 표준특허 업무 진행하는 경우가 많음



07. 표준특허에 AI 및 빅데이터 적용의 필요성

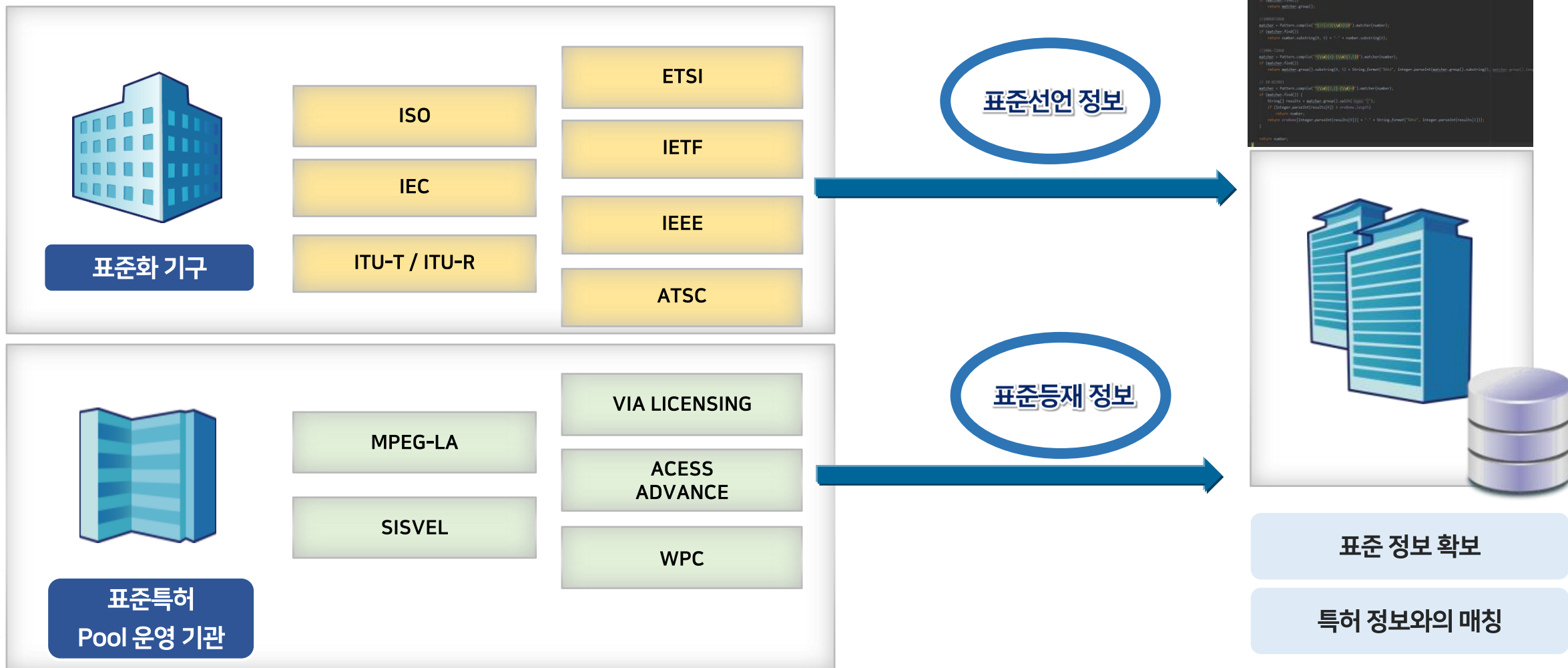
표준특허의 분석 및 검토 → 대규모의 전문성이 높은 특허 분석이 요구됨
시간과 비용의 관점에서 **정확도가 높은 자동화 처리 방식**이 필요 (AI 기술 및 빅데이터 기술 활용)
AI 및 빅데이터 처리는 특허 전문가의 검토를 위한 분석 대상 및 방향을 설정하기 위한 역할로 활용



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01. 빅데이터를 이용한 표준정보 확보



01. 빅데이터를 이용한 표준정보 확보



02. 빅데이터를 이용한 표준 내용 또는 기고문 확보




General Versions Responsibility Related

Specification #: 23.502

Release 18(Spec is UCC for this Release)

Latest Remark:

Meetings	Version	Upload date	Comment		ETSI	3GPP	CR
SA#101	18.3.0	2023-09-19	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#100	18.2.0	2023-06-29	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#99	18.1.1	2023-04-05	MCC Correction of clause numb...	60	ETSI	3GPP	CR
SA#99	18.1.0	2023-04-05	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#98-e	18.0.0	2022-12-21	Updated with approved Rel-18 ...	60	ETSI	3GPP	CR

Release 17(Spec is UCC for this Release)

Latest Remark:

Meetings	Version	Upload date	Comment		ETSI	3GPP	CR
SA#101	17.10.0	2023-09-19	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#100	17.9.0	2023-06-23	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#99	17.8.0	2023-03-31	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#98-e	17.7.0	2022-12-21	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#97-e	17.6.0	2022-09-22	Version updated with TSG SA#9...	60	ETSI	3GPP	CR
SA#96	17.5.0	2022-06-15	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#95-e	17.4.0	2022-03-23	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#94-e	17.3.0	2021-12-23	Updated with approved CRs at ...	60	ETSI	3GPP	CR
SA#93-e	17.2.1	2021-09-29	Correction to implementation ...	60	ETSI	3GPP	CR
SA#93-e	17.2.0	2021-09-24	Version updated with TSG SA#9...	60	ETSI	3GPP	CR

Exit

특정 사이트, 특정 페이지의 위치에서 다운받을 기고문 찾는 데이터 처리 모듈

일자 등 순서대로 중복되지 않게 파일을 찾아서 순차적으로 다운로드하는 모듈

```

import sys, os, urllib, random, re, time, datetime
def download_spec(spec_id, spec_title, spec_type, spec_status, spec_version):
    url = "http://www.3gpp.org/ftp/Specs/standards/rel-18/Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    filename = "3GPP_Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    if not os.path.exists(filename):
        print("Downloading %s" % url)
        urllib.urlretrieve(url, filename)
    return filename

def download_spec_list(spec_id, spec_title, spec_type, spec_status, spec_version):
    url = "http://www.3gpp.org/ftp/Specs/standards/rel-18/Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    filename = "3GPP_Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    if not os.path.exists(filename):
        print("Downloading %s" % url)
        urllib.urlretrieve(url, filename)
    return filename

def download_spec_list_by_date(spec_id, spec_title, spec_type, spec_status, spec_version):
    url = "http://www.3gpp.org/ftp/Specs/standards/rel-18/Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    filename = "3GPP_Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    if not os.path.exists(filename):
        print("Downloading %s" % url)
        urllib.urlretrieve(url, filename)
    return filename

def download_spec_list_by_date_and_version(spec_id, spec_title, spec_type, spec_status, spec_version):
    url = "http://www.3gpp.org/ftp/Specs/standards/rel-18/Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    filename = "3GPP_Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    if not os.path.exists(filename):
        print("Downloading %s" % url)
        urllib.urlretrieve(url, filename)
    return filename
    
```

```

def download_spec_list_by_date_and_version(spec_id, spec_title, spec_type, spec_status, spec_version):
    url = "http://www.3gpp.org/ftp/Specs/standards/rel-18/Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    filename = "3GPP_Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    if not os.path.exists(filename):
        print("Downloading %s" % url)
        urllib.urlretrieve(url, filename)
    return filename

def download_spec_list_by_date_and_version(spec_id, spec_title, spec_type, spec_status, spec_version):
    url = "http://www.3gpp.org/ftp/Specs/standards/rel-18/Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    filename = "3GPP_Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    if not os.path.exists(filename):
        print("Downloading %s" % url)
        urllib.urlretrieve(url, filename)
    return filename

def download_spec_list_by_date_and_version(spec_id, spec_title, spec_type, spec_status, spec_version):
    url = "http://www.3gpp.org/ftp/Specs/standards/rel-18/Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    filename = "3GPP_Spec%03d-%03d-%03d-%03d-%03d.pdf" % (spec_id, spec_title, spec_type, spec_status, spec_version)
    if not os.path.exists(filename):
        print("Downloading %s" % url)
        urllib.urlretrieve(url, filename)
    return filename
    
```

03. 기관 보유 특허의 표준 가능성 검토 (빅데이터 처리)



03. 기관 보유 특허의 표준 가능성 검토 (빅데이터 처리)

```
private static Set<String> tokenize(String index, String str) {
    Set<String> tokenSet = new HashSet<>();

    String[] tokens = str.split(" ");
    for (String token : tokens) {
        token = token.toLowerCase();
        token = token.replaceAll("[^a-z0-9_]", "");
        token = token.trim();
        if (token.length() > 0) {
            tokenSet.add(token);
        }
    }

    return tokenSet;
}

private static Set<String> tokenize(String index, String str) {
    Set<String> tokenSet = new HashSet<>();

    String[] tokens = str.split(" ");
    for (String token : tokens) {
        token = token.toLowerCase();
        token = token.replaceAll("[^a-z0-9_]", "");
        token = token.trim();
        if (token.length() > 0) {
            tokenSet.add(token);
        }
    }

    return tokenSet;
}
```

표준정보 Tokenize Code

```
private static Set<String> tokenize(String index, String str) {
    Set<String> tokenSet = new HashSet<>();

    String[] tokens = str.split(" ");
    for (String token : tokens) {
        token = token.toLowerCase();
        token = token.replaceAll("[^a-z0-9_]", "");
        token = token.trim();
        if (token.length() > 0) {
            tokenSet.add(token);
        }
    }

    return tokenSet;
}
```

표준정보 VS 미국등록특허 비교 Code

특허고유 ID
-표준별 Top 3 도출

유사도 도출
(0.001~2.95 범위)
-Token화된 표준정보
키워드가 한국등록특허에 많이
존재할수록 증가

Token화된 표준 정보
-불용어 처리
-핵심 키워드 도출

미국등록특허 데이터
-명칭, 요약, 전체청구항

표준정보 VS 한국등록특허 비교 결과

출원번호	표준번호	특허-표준 유사도
	IEC 62443-3-3:2013/COR1:2014	0.531887233
	IEC 60086-4:2019/ISH1:2020	0.735580981
	IEC 60825-1:2014/ISH1:2017	0.51750493
	IEC 60825-1:2014/ISH2:2017	0.517488241
	IEC 61010-1:2010/ISH1:2013	0.547006845
	IEC 62827-1:2016	0.531182587
	IEC 62827-2:2017	2.933979511
	IEC 62827-1:2016	0.516707182
	IEC 62827-2:2017	2.958803692
	IEC 62827-3:2016	0.506056964
	ISO/IEC 9316:1995	0.666023433
	IEC 60642-3:1992	0.541943192
	IEC	0.690446377
	61837-2:2018/AMD1:2020	
	ISO/IEC	1.669768214
	30141:2018/COR1:2020	
	ISO/IEC 8073:1997	0.56994772
	ISO/IEC 8473-1:1998	0.587025881
	ISO/IEC TR 30146:2019	0.548632741
	ISO/IEC 13236:1998	1.330071449
	ISO/IEC 13252:1999	0.801024318
	ISO/IEC	0.529578507
	20000-2:2019/AMD1:2020	
	ISO/IEC 21000-22:2019	1.133496523
	ISO/IEC 8072:1996	0.653315604
	ISO/IEC 8073:1997	0.552975535
	ISO/IEC 8473-1:1998	0.687325954
	ISO/IEC TR 15413:2001	0.768592119
	ISO 1177:1985	0.506145179
	ISO/IEC 13236:1998	0.978753448

표준정보 VS 미국등록특허 비교 결과

03. 기관 보유 특허의 표준 가능성 검토 (빅데이터 처리)

IEC 62827-2:2017

Wireless power transfer - Management - Part 2: Multiple device control management

TC 100/TA 15 | [Additional information](#)

Abstract

[PREVIEW](#)

IEC 62827-2:2017, defines a wireless power management protocol for wireless power transfer to multiple devices in a wireless power management system. Various functions of wireless power management systems are justified. The wireless power management frames and messages that work between the management block of a power source and the management block or the coupler block of a device, or the coupler block of a power source, are defined as well to execute various functions. Also, the procedures for each functionality are described based on its frames and messages.
[Show more »](#)

Additional information

[Details](#)

Publication type	International Standard
Publication date	2017-06-19
Edition	1.0
Available language(s)	English, English/French
TC/SC	TC 100/TA 15 - Wireless Power Transfer
ICS	29.240.99 - Other equipment related to power transmission and distribution networks 33.160.99 - Other audio, video and audiovisual equipment 35.100.01 - Open systems interconnection in general

IEC 표준정보

[등록](#) Method for transferring wireless power (무선 전력을 이양하기 위한 방법)

등록번호	9923603 (2018.03.20) (공개 US 2014-0312833 A1)	형정정보 보기	이력PDF 보기
국가	미국(US)	출원번호	14-255645 (2014.04.17)
상태정보	등록 (PTA 적용) 현재 진행상태	심사진행상태	등록공고 - 등록로 납부
존속기간(예상)만료일	2034.06.17 (PTA 적용)	문헌종류	B2 문헌종류 코드 보기 >
		공개번호	2014-0312833 (2014.10.23)
		keyValue	A+ 특허평가보고서 보기 >

요약

This invention defines management protocols for wireless power transfer to multiple devices in Multi-device Wireless Power Management System. Various functions of Multi-device Wireless Power Management System are justified from this invention. The WPT frames and messages which work between the management block of a charger and the management block or the coupler block of a device, or the coupler block of a charger are defined as well to execute various functions. Also the procedures for each functionality are described based on its frames and messages.

유사도 2.9588

청구 범위

[+ 전체 펼치기](#) [자이보기](#) [N](#)

[독립항 보기](#) | [전체청구항 보기](#)

[+ \[청구항 1\]](#) [독](#) [?](#)

1. A method of controlling a multi-device wireless power charger (MWPC) to wirelessly transfer power to a plurality of receivers, the method comprising:

initializing power transfer service to the receivers;

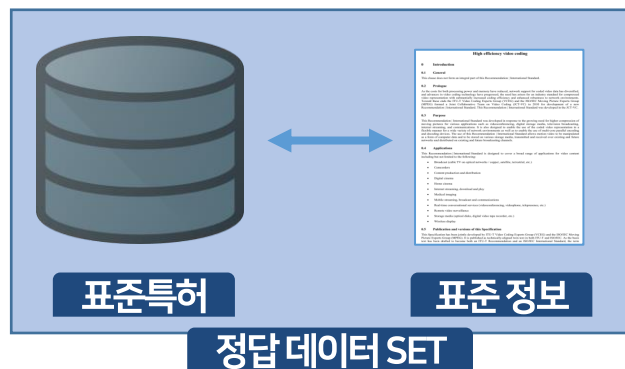
associating the MWPC with the receivers by transmitting a plurality of connection requests to the receivers at the same time, and receiving at least one response from the receivers, respectively, in response to the connection requests, wherein the at least one response comprises an identifier(ID) identifying a corresponding receiver among the receivers; and

wirelessly transferring the power from the MWPC to at least one of the receivers based on a result of the associating so that the receiver is charged by the transferred power,

wherein the ID comprises at least one from among an address, a communication port (COM) ID, a wireless power transfer (WPT) ID of the receiver.

A 기관 보유 특허

03. 기관 보유 특허의 표준 가능성 검토 (AI 기반 접근)



AI모델 학습



AI 기반 표준 후보도출 학습 모델



AI 기반 표준 후보도출 학습 모델



표준 가능성

관련 표준화기구

관련 표준 정보

113

시학습 모델 선정

시학습 모델 학습 진행

```

EPOCHS = 100

optimizer = optim.Adam(model.parameters(), lr=0.5, correct_bias=False, eps=1e-08, weight_decay=0.01)

from apex import amp

model, optimizer = amp.initialize(model, optimizer, opt_level="O3") # O3 需要  Volta 显卡 支持

total_step = len(train_data_loader) * EPOCHS

scheduler = get_linear_schedule_with_warmup(
    optimizer,
    num_warmup_steps=total_step//10,
    num_training_steps=total_step
)

#loss_fn = nn.BCEWithLogitsLoss().to(device)
#loss_fn = NormalizedLoss(alpha=0.25).to(device)
loss_fn = FocalLoss(alpha=0.25).to(device)

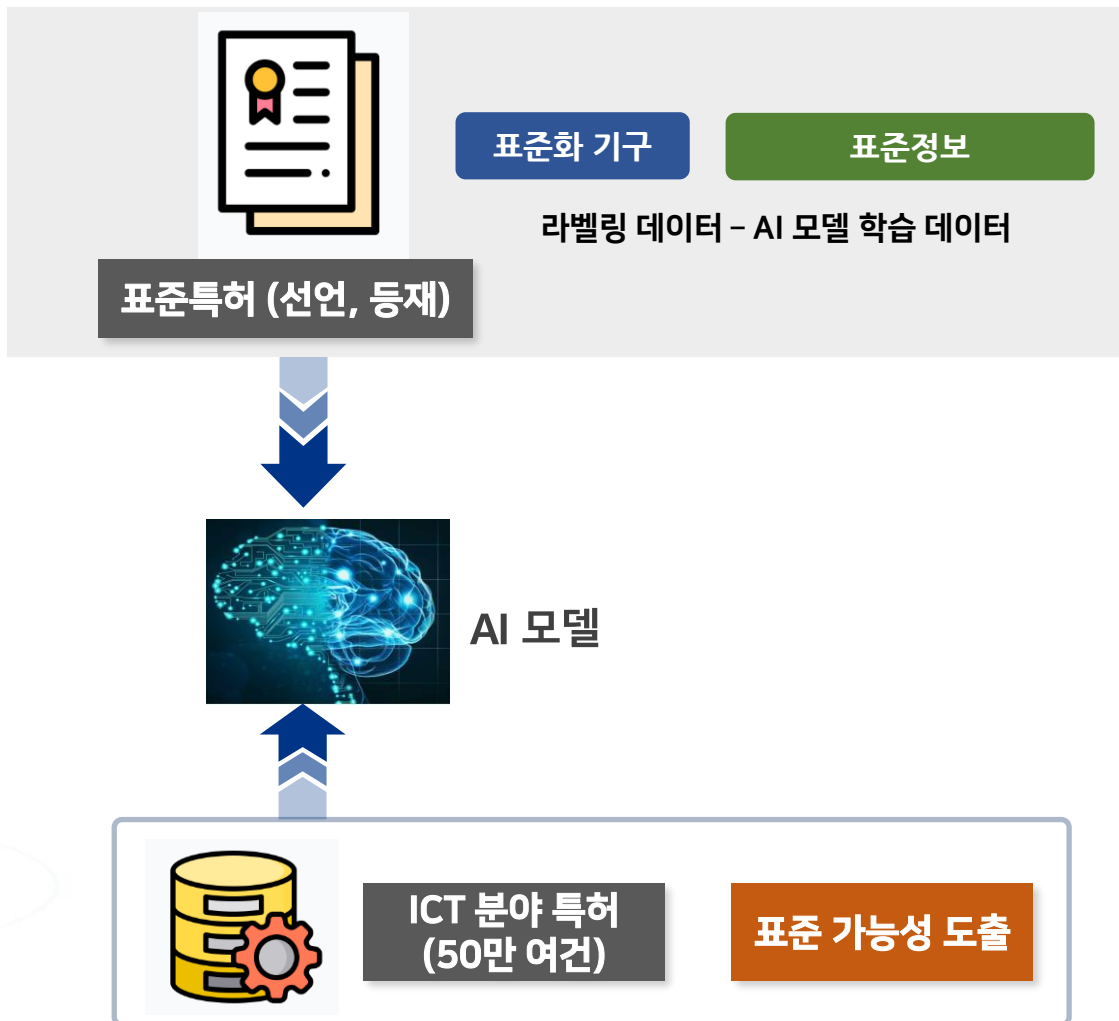
Selected optimization level O3: Insert automatic casts around Pytorch functions and Tensor methods.

Defaults for this optimization level are:
enabled                : True
opt_level              : O3
cast_model_type        : None
patch_torch_functions  : True
keep_batchnorm_fp32    : None
master_weights         : None
loss_scale              : dynamic
Processing user overrides (additional kwargs that are not None)...
After processing overrides, optimization options are:
enabled                : True
opt_level              : O3
cast_model_type        : None
patch_torch_functions  : True
keep_batchnorm_fp32    : None
master_weights         : None
loss_scale              : dynamic

```

출발번호	docId	표준 후보 1	표준 후보 2	표준 후보 3	표준 후보 4	표준 후보 5	표준 후보 1 정확도	표준 후보 2 정확도	표준 후보 3 정확도	표준 후보 4 정확도	표준 후보 5 정확도
2013-010350	20130136558	WPS-L H.265	ISO HMM 130/12624	ETSI HMM 130.26.23	WPS-L H.264	ATSC H.262	0.96354577	0.0145545	0.0097335	0.00952685	0.00327798
2013-010351	20130140009	WPS-L H.265	ISO HMM 130/12624	ETSI HMM 130.26.23	ATSC H.262	ATSC H.264	0.96296266	0.0109569	0.00989214	0.00987612	0.00399769
2013-010419	20130140999	WPS-L H.265	ETSI HMM 130.27.92	ETSI HMM 130.23.20	ETSI HMM 130.36.31	ATSC H.264/104	0.96705004	0.0139392	0.0261496	0.02310603	0.02395414
2013-010471	20130147151	WPS-L H.265	ISO HMM 130/12624	ETSI HMM 130.26.23	ATSC HMM 130.26.24	ETSI HMM 130.36.21	0.95959848	0.0104209	0.0031975	0.00948957	0.0094917
2013-010512	20130017648	ISO HMM 130/12624	ATSC HMM 130.26.23	ISO HMM 130/12624	ATSC HMM 130.26.23	ISO HMM 130/12624	0.92299312	0.0493954	0.0470546	0.0329956	0.0302344
2013-010522	20130033248	IEEE H.262	ETSI HMM 130.26.21	ATSC HMM 130.26.21	ATSC HMM 130.26.21	ATSC HMM 130.26.21	0.9125946	0.0215700	0.0164807	0.0164807	0.0164807
2013-010541	20130061486	ETSI HMM 130.36.23	ETSI HMM 130.36.21	ETSI HMM 130.36.31	ETSI HMM 130.36.31	ETSI HMM 130.21.41	0.95073986	0.0501271	0.0256112	0.0243697	0.0147563
2013-010549	20130070591	ISO HMM 130.26.23	ETSI HMM 130.26.21	ETSI HMM 130.26.31	ETSI HMM 130.36.00	ETSI HMM 130.23.41	0.92582185	0.0161037	0.0184903	0.0185931	0.0150479
2013-010552	20130075276	WPS-L H.265	ISO HMM 130/12624	ETSI HMM 130.26.23	WPS-L H.264	ATSC H.262	0.9304189	0.0172532	0.0104672	0.0101969	0.00962439
2013-010719	20130077161	ISO HMM 130/12624	WPS-L H.265	WPS-L H.265	ATSC H.264	ATSC H.264	0.96984201	0.0123372	0.0159149	0.0160061	0.0060161
2013-010842	20130042300	ISO HMM 130.26.23	IEEE H.262	ETSI HMM 130.26.32	ETSI HMM 130.36.31	ETSI HMM 130.36.31	0.90674543	0.0195247	0.0189425	0.0758672	0.0963955
2013-010843	20130026636	ETSI HMM 130.26.23	ETSI HMM 130.26.20	ETSI HMM 130.23.21	ATSC H.262	ATSC H.262	0.9878991	0.0481757	0.0251541	0.0114873	0.00947728
2013-010910	20130040888	ETSI HMM 130.36.34	ETSI HMM 130.36.31	ETSI HMM 130.36.34	ETSI HMM 130.36.31	ETSI HMM 130.36.31	0.92489999	0.0308732	0.0125941	0.0110676	0.0094833
2013-010946	20130047676	ETSI HMM 130.26.21	ETSI HMM 130.26.21	ETSI HMM 130.26.21	ETSI HMM 130.36.31	ETSI HMM 130.36.31	0.9796274	0.0130478	0.0169056	0.01014816	0.01012987
2013-010954	20130089349	ETSI HMM 130.36.31	ETSI HMM 130.36.423	ETSI HMM 130.36.473	ETSI HMM 130.36.323	ETSI HMM 130.23.51	0.91512407	0.0100487	0.07540128	0.06020187	0.05982437
2013-011002	20130100420	ETSI HMM 130.36.31	ETSI HMM 130.36.31	ETSI HMM 130.36.31	ETSI HMM 130.36.34	ETSI HMM 130.36.213	0.94466575	0.0195491	0.02514821	0.0425259	0.0396664
2013-011011	20130111938	ATSC H.262	ISO HMM 130/12624	ISO HMM 130/12624	WPS-L H.265	ISO HMM 130/12624	0.92075262	0.04677521	0.04031169	0.0391346	0.0307779
2013-011020	20130103240	ETSI HMM 130.26.23	ETSI HMM 130.26.21	ETSI HMM 130.26.21	WPS-L H.265	ATSC H.262	0.97459587	0.0320303	0.0346691	0.0374668	0.0374668
2013-011033	20130103320	ETSI HMM 130.26.21	ETSI HMM 130.26.21	ETSI HMM 130.26.00	IEEE H.262	ETSI HMM 130.36.30	0.9001490	0.0306771	0.0254825	0.01314076	0.01280139
2013-011044	20130106448	ETSI HMM 130.26.23	ETSI HMM 130.26.32	ATSC H.262	ATSC H.262	ETSI HMM 130.26.213	0.6498522	0.13737878	0.13640047	0.11732542	0.1169735
2013-011054	20130109496										

03. 기관 보유 특허의 표준 가능성 검토 (AI 기반 접근)



표준특허 확실 - 표준특허
DB 존재 사건

표준특허 가능 - 표준특허 X
but, 표준특허 가능성

검색결과 총 3,321건

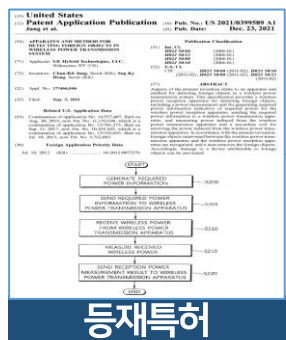
국가: KR (3321)

상태: Inactive (1312) Active (1809)

구분: 표준특허 확실 (8) 표준특허 가능 (2323) 표준특허 어려움 (990)

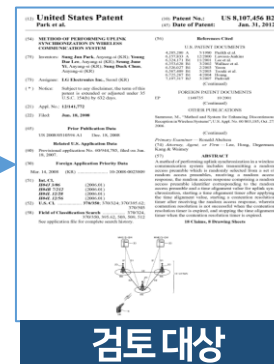
No	상태	문헌번호	문헌일	출원번호	출원일	우선일	발명의 명칭	출원인	AI 표준특허 예측	표준화 기구	표준 정보
1	등록	KR 2075208 B1	2020.02.03	2017-0171993	2017.12.14	-	참조 프레임워크를 적용적으로 제한하는 영상 부호화 방법 및 장치		가능 (98%)	MPEG-LA	H.265
2	소멸	KR 2011-0078509 A	2011.07.07	2009-0135337	2009.12.31	-	배치공간 예측을 이용한 영상부호화방법		가능 (98%)	MPEG-LA	H.265
3	소멸	KR 1073938 B1	2011.10.10	2009-0135324	2009.12.31	-	배치공간 예측을 이용한 영상부호화방법		가능 (98%)	MPEG-LA	H.265
4	등록	KR 1873993 B1	2018.06.27	2016-0153953	2016.11.18	-	적응적 샘플 오버셋 피라미드 예측 방법 및 이를 위한 장치		가능 (98%)	MPEG-LA	H.265
5	소멸	KR 1073939 B1	2011.10.10	2009-0135337	2009.12.31	-	배치공간 예측을 이용한 영상부호화방법		가능 (98%)	MPEG-LA	H.265
6	등록	KR 2075207 B1	2020.02.03	2017-0170124	2017.12.12	-	부호화 유닛의 문맥을 사용하여 참조 프레임들을 선택하는 영상 부호화 방법 및 장치		가능 (98%)	MPEG-LA	H.265
7	등록	KR 2018-0056447 A	2018.05.29	2016-0153953	2016.11.18	-	적응적 샘플 오버셋 피라미드 예측 방법 및 이를 위한 장치		가능 (98%)	MPEG-LA	H.265
8	소멸	KR 1227932 B1	2013.01.24	2011-0004198	2011.01.14	-	다채널 멀티트랙 오디오 시스템 및 오디오 처리 방법		가능 (98%)	ATSC	A/342
9	등록	KR 2019-0071189 A	2019.06.24	2017-0171993	2017.12.14	-	참조 프레임워크를 적용적으로 제한하는 영상 부호화 방법 및 장치		가능 (98%)	MPEG-LA	H.265
10	소멸	KR 2012-0082738 A	2012.07.24	2011-0004198	2011.01.14	-	다채널 멀티트랙 오디오 시스템 및 오디오 처리 방법		가능 (97%)	ATSC	A/342
11	등록	KR 2019-0069830 A	2019.06.30	2017-0170124	2017.12.12	-	부호화 유닛의 문맥을 사용하여 참조 프레임들을 선택하는 영상 부호화 방법 및 장치		가능 (97%)	MPEG-LA	H.265
12	거절	KR 2010-0018810 A	2010.02.18	2008-0077491	2008.08.07	-	초고화질 영상 부호화, 복호화 방법 및 장치 및 컴퓨터로 판독 가능한 기록매체		가능 (97%)	MPEG-LA	H.265

01. 표준특허 필수성 검증에서의 AI 적용



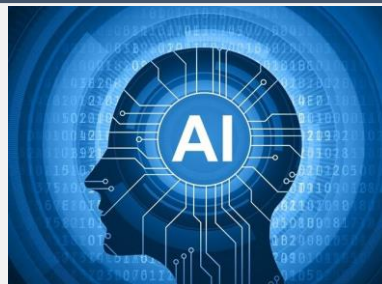
문서 콘텐츠 기반의
표준 필수성 판단

표준 필수성 판단
Feature
추출 및 학습



** 등재특허는 특허 전문가에 의해
필수성 검증을 통과한 특허임

AI 모델 활용



AI 기반 표준 필수성 검증 학습 모델

(1) 타겟 표준에 대해 필수성 점수가 특정 임계치
이상인 특허 확인

(2) 특허별 필수성 점수 제시

(3) 필수성에 참고된 표준 정보 제시

01. 표준특허 필수성 검증에서의 AI 적용

표준특허 필수성 검증 서비스 학습 결과

```

***** Epoch 19 / 20 *****
Training...
Gradient overflow. Skipping step, loss scaler 0 reducing loss scale to 2097152.0
[I 220928 10:14:02 <ipython-input-27-805cb771cddf>:90]
[I 220928 10:14:02 <ipython-input-27-805cb771cddf>:91] Average training loss: 0.00005
[I 220928 10:14:02 <ipython-input-27-805cb771cddf>:92] Training epoch took: 0:03:06
Average training loss: 0.00005
Training epoch took: 0:03:06

[I 220928 10:14:10 <ipython-input-27-805cb771cddf>:118]
[I 220928 10:14:10 <ipython-input-27-805cb771cddf>:119] create best model
[I 220928 10:14:10 <ipython-input-27-805cb771cddf>:127]
[I 220928 10:14:10 <ipython-input-27-805cb771cddf>:128] 18 valid loss: 0.00130 p1 : 0.97476 p3 : 0.33107 p5 : 0.19864
check_step : 0
[I 220928 10:14:10 <ipython-input-27-805cb771cddf>:25]
[I 220928 10:14:10 <ipython-input-27-805cb771cddf>:26] ***** Epoch 20 / 20 *****
[I 220928 10:14:10 <ipython-input-27-805cb771cddf>:27] Training...
18 valid loss: 0.00130 p1 : 0.97476 p3 : 0.33107 p5 : 0.19864 check_step : 0

***** Epoch 20 / 20 *****
Training...
[I 220928 10:17:17 <ipython-input-27-805cb771cddf>:90]
[I 220928 10:17:17 <ipython-input-27-805cb771cddf>:91] Average training loss: 0.00004
[I 220928 10:17:17 <ipython-input-27-805cb771cddf>:92] Training epoch took: 0:03:06
Average training loss: 0.00004
Training epoch took: 0:03:06

[I 220928 10:17:26 <ipython-input-27-805cb771cddf>:118]
[I 220928 10:17:26 <ipython-input-27-805cb771cddf>:119] create best model
[I 220928 10:17:26 <ipython-input-27-805cb771cddf>:127]
[I 220928 10:17:26 <ipython-input-27-805cb771cddf>:128] 19 valid loss: 0.00130 p1 : 0.97330 p3 : 0.33058 p5 : 0.19835
check_step : 0
19 valid loss: 0.00130 p1 : 0.97330 p3 : 0.33058 p5 : 0.19835 check_step : 0
    
```

표준특허 필수성 검증 서비스 학습 결과

출원번호	docId	표준 정보	필수성 검증 지수
2012-0126050	kr20120126050b1	MPEG-LA ### H.265	3.705659389
2013-0040008	kr20130040008b1	MPEG-LA ### H.265	3.700921297
2013-0044999	kr20130044999b1	MPEG-LA ### MVC	2.737007141
2013-0047151	kr20130047151b1	MPEG-LA ### H.265	3.717814684
2013-0061724	kr20130061724b1	MPEG-LA ### EV Charging	1.7217803
2013-0063224	kr20130063224b1	SISVEL ### LTE	0.571547806
2013-0066146	kr20130066146b1	SISVEL ### LTE	1.330979109
2013-0070581	kr20130070581b1	SISVEL ### Wi-Fi	2.582939863
2013-0075276	kr20130075276b1	MPEG-LA ### H.265	3.717160225
2013-0079176	kr20130079176b1	MPEG-LA ### VC-1	1.554984689
2013-0084230	kr20130084230b1	SISVEL ### Wi-Fi	2.601749659
2013-0092663	kr20130092663b1	MPEG-LA ### H.265	1.450298667
2013-0094088	kr20130094088b1	SISVEL ### 3G	0.306677341
2013-0094767	kr20130094767b1	SISVEL ### Wi-Fi	1.593724608
2013-0098394	kr20130098394b1	SISVEL ### LTE	0.89268291
2013-0100432	kr20130100432b1	MPEG-LA ### H.264	3.188055277
2013-0101193	kr20130101193b1	MPEG-LA ### H.265	3.453604221
2013-0103242	kr20130103242b1	MPEG-LA ### MPEG-4	1.239014626
2013-0103302	kr20130103302b1	SISVEL ### Wi-Fi	0.989536464
2013-0106449	kr20130106449b1	SISVEL ### LTE	0.884652853
2013-0109494	kr20130109494b1	SISVEL ### LTE	0.678541124

01. 표준특허 필수성 검증에서의 AI 적용

특허 정보 입력

국가코드	출원번호
US	17-541809
US	17-486426
US	17-484817
US	17-462796
US	17-398939
US	17-394149
US	17-388160
US	17-379985
US	17-376320
US	17-361252
US	17-358154
US	17-343315
US	17-341274
US	17-323374
US	17-317856
US	17-308031

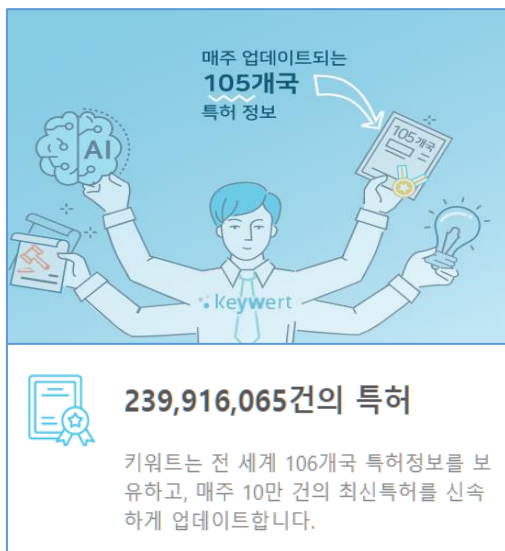


결과 리스트

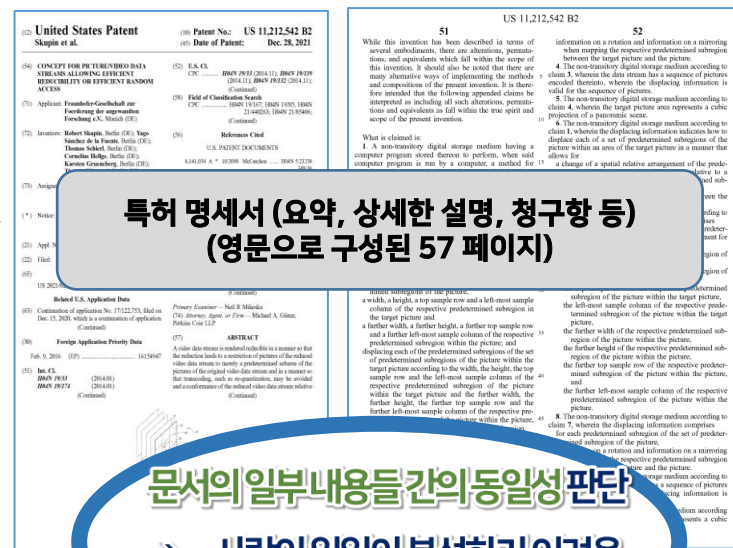
국가코드	출원번호	출원일	발명의 명칭	출원인	표준화기구	표준정보	표준타입
US	17-541809	20211203	System and method for distributed	REARDEN	ETSI	TS 136 211 v8.8.0 TS 3D	
US	17-486426	20210927	Prefix indexing	SNOWFLAKE	MPEG-LA ISO/IEC JTC1	ISO/IEC 14496-31 AVC/H D L	
US	17-484817	20210924	Prefix N-gran indexing	SNOWFLAKE	MPEG-LA ISO/IEC JTC1	ISO/IEC 14496-31 AVC/H D L	
US	17-462796	20210831	Processing techniques for queries	SNOWFLAKE	MPEG-LA ISO/IEC JTC1	ISO/IEC 14496-31 AVC/H D L	
US	17-398939	20210810	Media content management	ICONTROL NETWORKS	ISO/IEC ISO/IEC JTC1	ISO/IEC 29341	D
US	17-394149	20210804	Pruning index to support semi-stru	SNOWFLAKE	MPEG-LA ISO/IEC JTC1	ISO/IEC 14496-31 AVC/H D L	
US	17-388160	20210729	Pruning index generation for patte	SNOWFLAKE	MPEG-LA ISO/IEC JTC1	ISO/IEC 14496-31 AVC/H D L	
US	17-379985	20210719	System and methods for planned evo	REARDEN	ETSI	TS 136 211 v8.8.0 TS 3D	
US	17-376320	20210715	Receiving device and method for de	TECHNISCHE UNIVERSITAT D	ITU-T	G.680 (ex. G.ott)	D
US	17-361252	20210628	Systems and methods for mitigating	REARDEN	ETSI	TS 136 211 v8.8.0 TS 3D	
US	17-358154	20210625	Pruning index maintenance	SNOWFLAKE	MPEG-LA ISO/IEC JTC1	ISO/IEC 14496-31 AVC/H D L	
US	17-343315	20210609	Premises management configuration	ICONTROL NETWORKS	ISO/IEC ISO/IEC JTC1	ISO/IEC 29341	D
US	17-341274	20210607	Messaging enhancement with locatio	IPVENTURE	ETSI ATSC	TS 124 030 TS 44.018 TD	
US	17-323374	20210518	Sensor based logistics system	FEDEX SERVICES	ETSI ATSC	TS 124 030 TS 44.018 TD	
US	17-317856	20210511	System and method for distributed	REARDEN	ETSI	TS 136 211 v8.8.0 TS 3D	
US	17-308031	20210504	System and method for distributed	REARDEN	ETSI	TS 136 211 v8.8.0 TS 3D	
US	17-277530	20190924	Method and apparatus for performin	SAMSUNG ELECTRONICS	ITU-R	M.1225	D
US	17-247248	20201204	Systems, methods, and devices for	DIGITAL GLOBAL SYSTEMS	ETSI	TS 45.005 TS 21.101 TS D	
US	17-234699	20210419	System and method for distributed	REARDEN	ETSI	TS 136 211 v8.8.0 TS 3D	

02. 표준특허 필수성 검증의 고도화

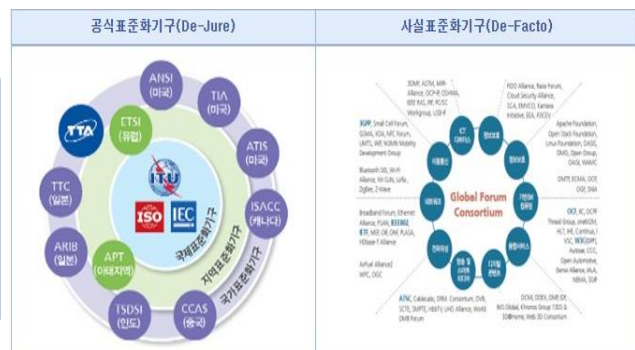
특허



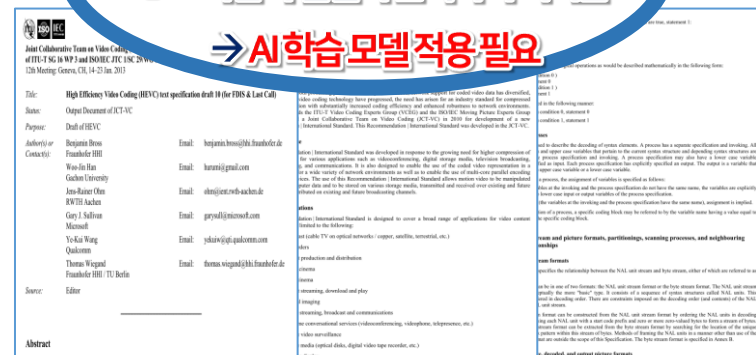
예시: HEVC 비디오 표준
특허
(US 11,212,542)



표준



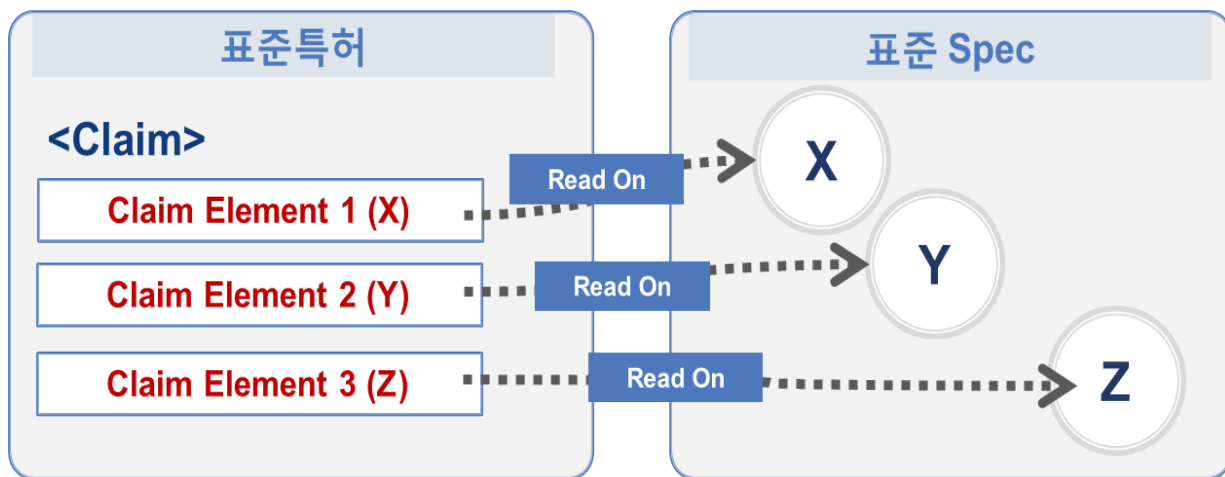
예시: ISO/IEC JTC 1
(HEVC 비디오 표준 기술)



표준 문서 (영문)
(429 페이지)

국내외 표준기구에서 배포된 표준 기술 : 수천여개

03. 표준특허 필수성 검증의 고도화

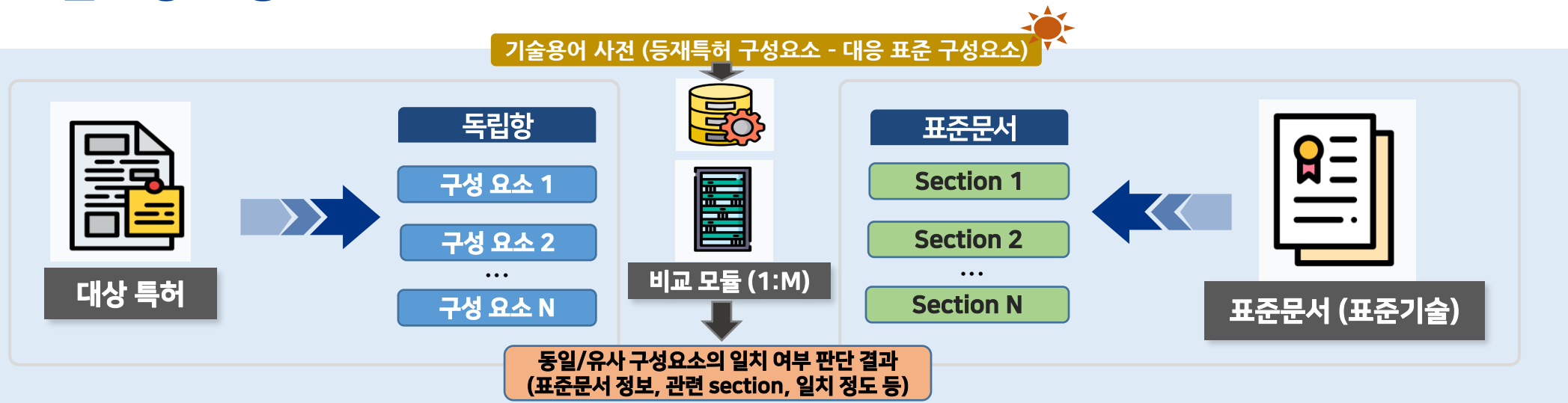


- AI 모델 학습을 위한 정답 데이터 확보 필요 (Claim Chart 등 학습/검증)
- 대상 특허의 청구항과 비교할 표준문서가 많음
- 특허 청구항의 구성 요소와 수백 Page의 표준문서와의 비교 필요
- 특허 청구항의 표현과 표준 SPEC상 표현 과의 차이점 존재 (의미는 동일)
- 필수성 검증 정도에 대한 수치화 필요

Claim charts: Comparison between the claims and the standard Date: 2018.11.09

Title	Apparatus and method for encoding and decoding of integrated speech and audio utilizing a band expander to output the audio or speech to a frequency domain encoder or an LPC encoder	
Patent Owner		
Patent No / Date of Patent		
Application No / Filed Date		
Priority / Priority Date		
Standard(Spec.)	ISO/IEC 23003-3 MPEG Audio Technologies-Part 3: Unified speech and audio coding (USAC)	
Abstract	Provided are an apparatus and a method for integrally encoding and decoding a speech signal and a audio signal. The encoding apparatus may include: an input signal analyzer to analyze a characteristic of an input signal; a first conversion encoder to convert the input signal to a frequency domain signal, and to encode the input signal when the input signal is a audio characteristic signal; a Linear Predictive Coding (LPC) encoder to perform LPC encoding of the input signal when the input signal is a speech characteristic signal; a frequency band expander for expanding a frequency band of the input signal whose output is transmitted to either the first conversion encoder or the LPC encoder based on the input characteristic; and a bitstream generator to generate a bitstream using an output signal of the first conversion encoder and an output signal of the LPC encoder.	
Claim 14	SPECIFICATION (REFERENCE TO US PAT. PUB. NO. 20150154974) FIG. 5 is a block diagram illustrating a decoding apparatus for integrally decoding a speech signal and a audio signal according to an embodiment of the present invention.	MPEG-4 AAC Standards Subclause 1.5.1.2.40 of the MPEG-4 Audio Standard defines the USAC object type: 1.5.1.2.40 USAC object type The USAC object type conveys Unified Speech and Audio Coding payload (see ISO/IEC 23003-3) in the MPEG-4 Audio framework. Subclause 1.5.1.1, Table 1.1 shows the inclusion of the USAC object as object type 42. The MPEG-4 Audio Standard defines the USAC audio object type in Table 1.1 and subclause 1.5.1.2.40. Table 1.1 – Audio Object Type definition based on Tools/Modules

검토



거증

[illegible]

등재특허 정보

	신청특목의 구성요소	대상표준(표기공통)의 내용	첨가사항
제1호	요청: 피어에게 필요한 정보(자료)를 가진 모든 피어에게 필요한 정보 요청지를 전송. 해당 상기 요청에 대응하는 메시지를 생성하는 단계;	4.2.2. Complex query for peer list 1) A peer sends OMS a request for the list of peers participating the desired transaction(s). 2) Upon receiving such request, OMS sends P2P2E a message requesting peer list meeting the criteria. The request can include overlay security, minimum number of peer to be responded, etc.	요청에 따라된, 원하는 조건을 보유한 피어의 리스트에 대한 요청이 있으면, OMS는 P2P2E/피어 활동 관리 서버에게 메시지를 전송함.
제2호	요청: 피어에게 필요한 정보(자료)를 가진 모든 피어에게 필요한 정보 요청지를 전송. 해당 상기 요청에 대응하는 메시지를 생성하는 단계;	4.2.2. Complex query for peer list 1) A peer sends OMS a request for the list of peers participating the desired transaction(s). 2) Upon receiving such request, OMS sends P2P2E a message requesting peer list meeting the criteria. The request can include overlay security, minimum number of peer to be responded, etc.	다만, 생성된다는 내용이 피어에 정확히 없으므로, 이 때에 요청을 취하여 부합된 모든 구성요소와 하위 값이 보정될 수 있음.
제3호	제1항에 있어서, 시버의 동작 방법. 제1항에 있어서, 시버의 동작 방법.	4.2.2.2. Peer query condition details The peer query condition details provide the information about the condition for query peers on some peer. The peer condition details is defined as follows: 1) Peer ID 2) Peer type 3) Peer location 4) Peer status 5) Peer security 6) Peer reputation 7) Peer activity 8) Peer contact information 9) Peer transaction history 10) Peer transaction type 11) Peer transaction amount 12) Peer transaction time 13) Peer transaction location 14) Peer transaction status 15) Peer transaction type 16) Peer transaction amount 17) Peer transaction time 18) Peer transaction location 19) Peer transaction status 20) Peer transaction type 21) Peer transaction amount 22) Peer transaction time 23) Peer transaction location 24) Peer transaction status 25) Peer transaction type 26) Peer transaction amount 27) Peer transaction time 28) Peer transaction location 29) Peer transaction status 30) Peer transaction type 31) Peer transaction amount 32) Peer transaction time 33) Peer transaction location 34) Peer transaction status 35) Peer transaction type 36) Peer transaction amount 37) Peer transaction time 38) Peer 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Peer transaction type 251) Peer transaction amount 252) Peer transaction time 253) Peer transaction location 254) Peer transaction status 255) Peer transaction type 256) Peer transaction amount 257) Peer transaction time 258) Peer transaction location 259) Peer transaction status 260) Peer transaction type 261) Peer transaction amount 262) Peer transaction time 263) Peer transaction location 264) Peer transaction status 265) Peer transaction type 266) Peer transaction amount 267) Peer transaction time 268) Peer transaction location 269) Peer transaction status 270) Peer transaction type 271) Peer transaction amount 272) Peer transaction time 273) Peer transaction location 274) Peer transaction status 275) Peer transaction type 276) Peer transaction amount 277) Peer transaction time 278) Peer transaction location 279) Peer transaction status 280) Peer transaction type 281) Peer transaction amount 282) Peer transaction time 283) Peer transaction location 284) Peer transaction status 285) 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제4호	제1항에 있어서, 시버의 동작 방법. 제1항에 있어서, 시버의 동작 방법.	4.2.2.2. Peer query condition details The peer query condition details provide the information about the condition for query peers on some peer. The peer condition details is defined as follows: 1) Peer ID 2) Peer type 3) Peer location 4) Peer status 5) Peer security 6) Peer reputation 7) Peer activity 8) Peer contact information 9) Peer transaction history 10) Peer transaction type 11) Peer transaction amount 12) Peer transaction time 13) Peer transaction location 14) Peer transaction status 15) Peer transaction type 16) Peer transaction amount 17) Peer transaction time 18) Peer transaction location 19) Peer transaction status 20) Peer transaction type 21) Peer transaction amount 22) Peer transaction time 23) Peer transaction location 24) Peer transaction status 25) Peer transaction type 26) Peer transaction amount 27) Peer transaction time 28) Peer transaction location 29) Peer transaction status 30) Peer transaction type 31) Peer transaction amount 32) Peer transaction time 33) Peer transaction location 34) Peer transaction status 35) Peer transaction type 36) Peer transaction amount 37) Peer transaction time 38) Peer 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제5호	제1항에 있어서, 시버의 동작 방법. 제1항에 있어서, 시버의 동작 방법.	4.2.2.2. Peer query condition details The peer query condition details provide the information about the condition for query peers on some peer. The peer condition details is defined as follows: 1) Peer ID 2) Peer type 3) Peer location 4) Peer status 5) Peer security 6) Peer reputation 7) Peer activity 8) Peer contact information 9) Peer transaction history 10) Peer transaction type 11) Peer transaction amount 12) Peer transaction time 13) Peer transaction location 14) Peer transaction status 15) Peer transaction type 16) Peer transaction amount 17) Peer transaction time 18) Peer transaction location 19) Peer transaction status 20) Peer transaction type 21) Peer transaction amount 22) Peer transaction time 23) Peer transaction location 24) Peer transaction status 25) Peer transaction type 26) Peer transaction amount 27) Peer transaction time 28) Peer transaction location 29) Peer transaction status 30) Peer transaction type 31) Peer transaction amount 32) Peer transaction time 33) Peer transaction location 34) Peer transaction status 35) Peer transaction type 36) Peer transaction amount 37) Peer transaction time 38) Peer 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U P L O A D E D, LEFT의 대응함. 따라서, 청구주 3은 종료에 도달함.
제6호	제1항에 있어서, 시버의 동작 방법. 제1항에 있어서, 시버의 동작 방법.	4.2.2.2. Peer query condition details The peer query condition details provide the information about the condition for query peers on some peer. The peer condition details is defined as follows: 1) Peer ID 2) Peer type 3) Peer location 4) Peer status 5) Peer security 6) Peer reputation 7) Peer activity 8) Peer contact information 9) Peer transaction history 10) Peer transaction type 11) Peer transaction amount 12) Peer transaction time 13) Peer transaction location 14) Peer transaction status 15) Peer transaction type 16) Peer transaction amount 17) Peer transaction time 18) Peer transaction location 19) Peer transaction status 20) Peer transaction type 21) Peer transaction amount 22) Peer transaction time 23) Peer transaction location 24) Peer transaction status 25) Peer transaction type 26) Peer transaction amount 27) Peer transaction time 28) Peer transaction location 29) Peer transaction status 30) Peer transaction type 31) Peer transaction amount 32) Peer transaction time 33) Peer transaction location 34) Peer transaction status 35) Peer transaction type 36) Peer transaction amount 37) Peer transaction time 38) Peer transaction location 39) Peer transaction status 40) Peer transaction type 41) Peer transaction amount 42) Peer transaction time 43) Peer transaction location 44) Peer transaction status 45) Peer transaction type 46) Peer transaction amount 47) Peer transaction time 48) Peer transaction location 49) Peer transaction status 50) Peer transaction type 51) Peer transaction amount 52) Peer transaction time 53) Peer transaction location 54) Peer transaction status 55) Peer transaction type 56) Peer transaction amount 57) Peer transaction time 58) Peer transaction location 59) Peer transaction status 60) Peer transaction type 61) Peer transaction amount 62) Peer transaction time 63) Peer transaction location 64) Peer transaction status 65) Peer transaction type 66) Peer transaction amount 67) Peer transaction time 68) Peer transaction location 69) Peer transaction status 70) Peer transaction type 71) Peer transaction amount 72) Peer transaction time 73) Peer transaction location 74) Peer transaction status 75) Peer transaction type 76) Peer transaction amount 77) Peer transaction time 78) Peer transaction location 79) Peer transaction status 80) Peer transaction type 81) Peer transaction amount 82) Peer transaction time 83) Peer transaction location 84) Peer transaction status 85) Peer transaction type 86) Peer transaction amount 87) Peer transaction time 88	

Claim Chart



감사합니다.

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