

WIPO - ASEAN IP Strategic Forum



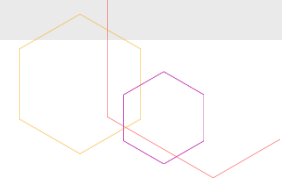
Kim Ki Tae



“ How is AI being leveraged in IP systems ? ”

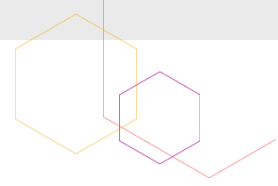
WIPPS Today !

A decorative graphic in the bottom right corner consisting of several overlapping hexagons. One is a solid orange hexagon, another is a larger, fainter orange hexagon behind it, and there are two smaller, fainter purple hexagons, one above and one below the orange ones.



WIPS CO., LTD.

Introduction WIPS



Seoul Sangam, KOREA

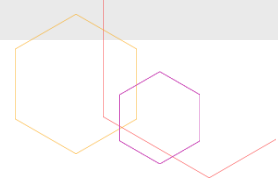


IP Total service provider

No.1 market share in Korea

- **Company** : WIPS Co., Ltd
- **Starting from** : August, 1999
- **Headquarter** : Seoul , Korea

Introduction WIPS



Digital Content Award by the Ministry of Information and Communication



DB Quality Grand Prize by the Ministry of Information and Communication



Certified Highest Quality DB by Korea Database Agency



Certified ISO/IEC 27001:2005 Information Security Management System for KIPO



Designated as “World Class Product” Service by Ministry of Knowledge Economy



Authorized Prior Art Search Institute by KIPO

- ◆ **Top Market Share in Korea**
- ◆ **WIPO ASPI Access to Specialized Patent Information**



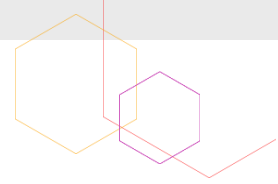
CONTENTS >

- **AI Patent search - Chat GPT + AI search**
- **AI tech Classification – Prism**
- **Easy analysis & Report - InsightPlus**

WIPPS Today !

Several decorative hexagonal shapes in various colors (orange, red, purple) are scattered in the bottom right corner of the slide.

General IP Working Process



❖ Patent search & analysis working process.





*** Most Common and Important question is

- **Is it exist or not ? (It means I can study this ?)**

Which part I can study ? What is next study ?

- **Can I go to market with my technology or products ??**

No Risk ?? Sure ??



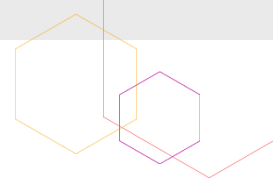


AI Patent search

with

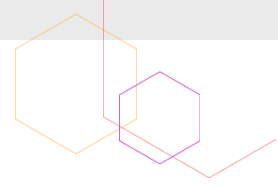
Chat GPT + AI search

AI Patent search - Chat GPT + AI search

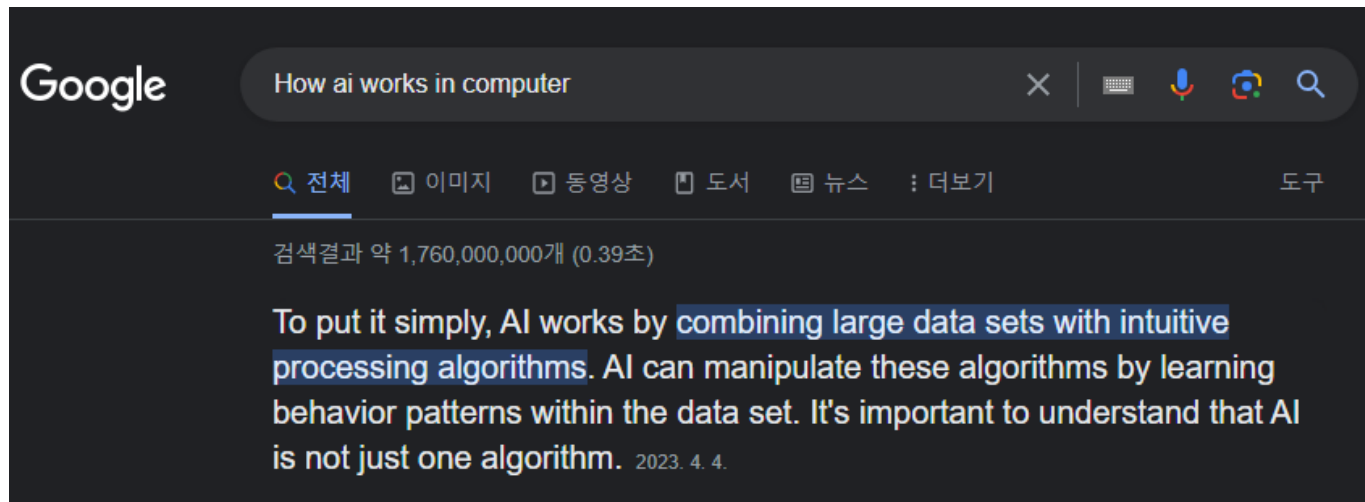


((폴리에틸렌* 폴리에칠렌* 폴리에설린* 폴리에치렌* 폴리에스틸렌* 팔리에틸렌* 팔리에칠렌* 팔리에설린* 팔리에설린* 팔리에치렌* 포리에틸렌* 포리에칠렌* 포리에설린* 포리에설린* 포리에치렌*포리에스틸렌* 폴리올레핀* 폴리올레핀* 폴리에텐* ((폴리* 팔리* 포리* 수지* 고분자* 공중합* 중합체* 레진* 코폴리* 공폴리* resin* poly* copoly*)) near (에틸렌* 에칠렌* 에설린* 에설린* 에치렌* 에스틸렌* 올레핀* 에텐* ethene* olefin* ethylen*)) polyethylen* polyolefin* polyethylene).ti,ab,cla. (C08F-010* C08L-023/04*).ipc.) AND (헥센* 헥센* 헥센* 1-헥센* 1-헤키센* 해키센* 해키센* 헤키센* 1헤키센* 1헥센* 1-hexene* hexene*).ti,ab,cla. AND (파이프* 빠이뿌* 파이뿌* 도관* 수도관* 직관* 하수관* 합성수지관* 상수도관* 강관* 배관* 관체* 수로관* 파이핑* 송수관* 하수관* 폐수관* pipe*).dsc. AND ((BOREALIS* 보레알리스* 아토피나* atofina* (FINA adj RESEARCH) ((토탈 TOTAL) adj (페트로케미칼스* PETROCHEMICALS*)) 토탈페트로케미컬* 이네오스 ineos 바젤* basell 바스프* BASF* (CIBA adj HOLDING) (Ciba adj Geigy) 미쓰이케이컬* ((미쓰이 mitsui) adj (가가쿠* chemicals*)) 필립스* 세브론필립스* philips* 다우글로벌테크놀로지스* 다우케미컬* 다우케미칼* ((다우 dow) adj (글로벌 global) adj (테크놀로지* technologies*)) ((다우 dow) adj (케미칼* 케미컬* chemical*)) 닛폰폴리에치렌* (japan adj polyethylene*) ((노바 nova) adj (케미칼* chem*)) sabic* DSM* 디에스엠* 로얄디에스엠* 사빅* 사우디베이직* ((사우디 Saudi) adj (베이직* basic*))).ap. (ボリアリス* ボリアリス* アトフィナ* (トータル adj ペトロケミカルズ*) イネオス バーゼル* बीएएएसエフ* (チバ adj ホールディング) 三井化学* フィリップス* (ダウ adj グローバル adj テクノロジーズ) (ダウ adj ケミカル) 日本ポリエチレン* (ノバ adj ケミカルズ) ディーエスएम* サビック* (サウディ adj 베이직*))).apj. (510310277 511114678 511233496 500224380 504231966 500161100 508014132 510312628 509011363 508349470 503461629 504469606 501330477 505455130 513076604 513043455 506126071 396023948 508020155 000005887 502303175 502141050 502130582 303060664 505382548 503200752 503220392 508171804 502132128).ac. (KR001182 EN004244 EN012782 EN001256 EN008881 EN015340 EN016149 KR000759 EN008312 EN001114 EN003633 EN012951 KR001505 EN003565 EN001508 KR000033 EN000012 KR000171 EN000207 KR000065 KR000179 EN000048 EN000417 EN064329 EN005622 EN009156 EN004500 EN000547 KR000228 EN003732 KR001371 KR001372).wap.)

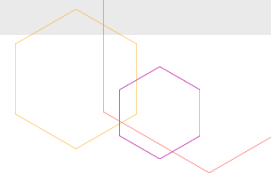
AI Patent search - Chat GPT + AI search



Result is 1.7 Billion



AI Patent search - Chat GPT + AI search



AI Search

Multi Language searchable - English / Japanese / Chinese / Korean

Technical classification

All

Sentence / file 123 Number

The present disclosure generally relates to the field of unmanned aerial vehicle and, more particularly, relates to a wearable unmanned-aerial-vehicle control device, and a system thereof. Unmanned aerial vehicle (UAV), as a new flying device, has been widely applied in a variety of fields such as entertainment, agriculture, geology, meteorology, power supply, emergency rescue, disaster relief, etc. At present, the remote control of UAV is mainly realized through a hand-held remote-control device for wireless communication with UAV, which has many disadvantages such as large size, inconvenience in carrying, etc. In the meantime, the adjustment of the UAV's flight status and the angle captured from the imaging device mounted on the UAV remains dependent on visually remote control by an operator. This requires considerable experience from the operator and high proficiency in operation of the hand-held remote-control terminal. In accordance with the disclosure, there is provided a wearable device for controlling an unmanned aerial vehicle (UAV). The wearable device includes one or more sensors configured to detect first status information of the wearable device, a communication circuit configured to transmit the first status information to the UAV and receive second status information of the UAV from the UAV, and a processor configured to generate a control instruction according to at least one of the first status information or the second status information, and control the communication circuit to transmit the control instruction to the UAV to control the UAV. FIG. 1 illustrates a schematic diagram of an exemplary unmanned aerial vehicle system consistent with disclosed embodiments. FIG. 2 illustrates a schematic block diagram of an exemplary wearable device consistent with disclosed embodiments. FIG. 3 illustrates a schematic block diagram of an exemplary unmanned aerial vehicle consistent with disclosed embodiments. FIG. 4 illustrates a schematic diagram showing control of an exemplary unmanned aerial vehicle in

15,926 characters

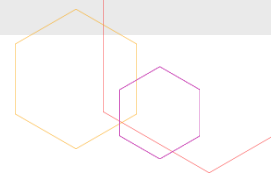
Example X Clear Search



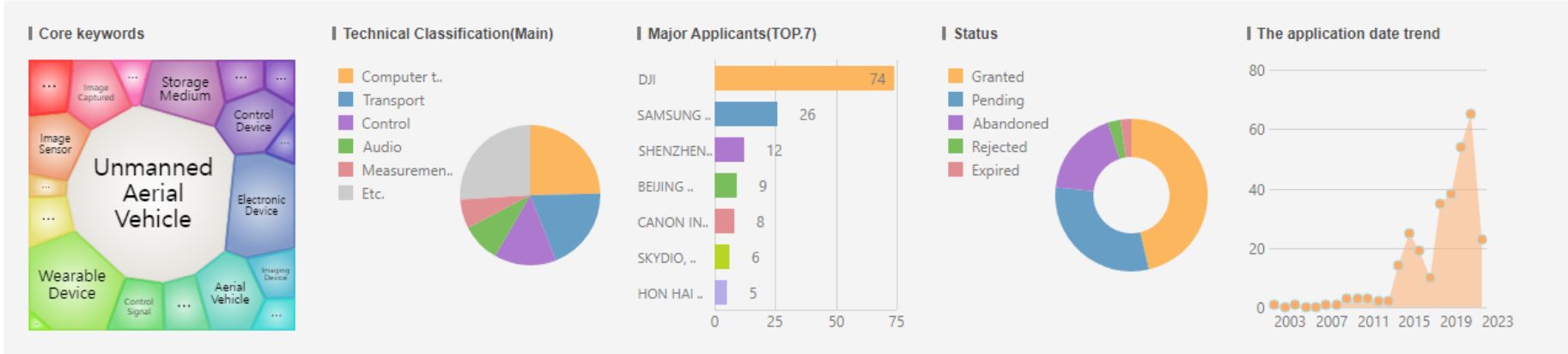
! AI Search

- AI Search suggests documents with high similarity by entering sentence based on artificial neural networks.
- AI search is available for Sentence / File / Number.
- Analyzes the language of the entered sentence and searches for similar documents by automatic translating. (Automatic translating may take some time.)

AI Patent search - Chat GPT + AI search



Filters ▾



Total 300

No
 Similarity
 Status
 Title
 Date
 Appl.No.
 Appl. Date
 Applicant
 IPC(Main)

95.23

+6

1. ABN US 2019-0243357 A1

WEARABLE UAV CONTROL DEVICE AND UAV SYSTEM

A wearable device for controlling an unmanned aerial vehicle (UAV) includes one or more sensors configured to detect first status information of the wearable device, a communication circuit configured to transmit the first status information to the UAV and receive second status information of the UAV from the UAV, and a processor configured to generate a control instruction according to at least one of the first status information or the second status information, and control the communication circuit to transmit the control instruction to the UAV to control the UAV.

Date : 2019.08.08 | Appl. No : 16/388168 | Appl. Date : 2019.04.18 | Applicant : SZ DJI TECHNOLOGY CO., LTD. | IPC(Main) : G05D-001/00 |
 Technical classification(Main) : Instruments-Control |

Core keywords

91.46

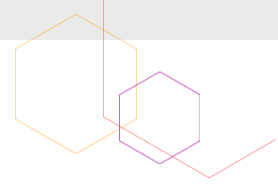
2. GRT BBB US 11733692 B2

Systems and methods for controlling an unmanned aerial vehicle

Systems and methods for controlling an unmanned aerial vehicle are disclosed. The system comprises an image sensor configured to generate output signals conveying visual information, the visual information including one or more images of a user, and one or more physical processors. The one or more physical processors are configured by computer-readable instructions to recognize one or more gestures from the user based on the visual information, interpret the one or more gestures from the user as flight control information, and provide flight control for the unmanned aerial vehicle based on the flight control information.



AI Patent search - Chat GPT + AI search



Semantic search

Count frequency keyword

Sentence search

Not enough

Technology (Deep learning)

Paragraph search

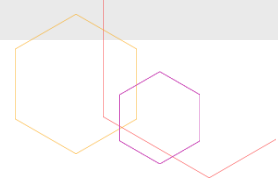
Not enough

Big & Optimized Data

Phrase search

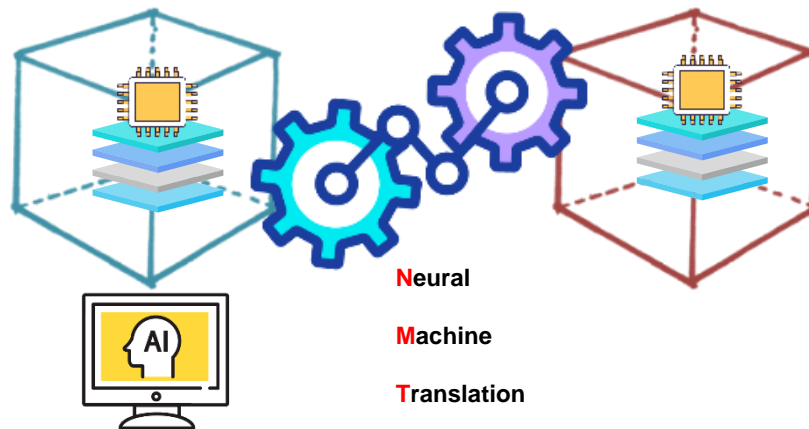
Text mining

AI Patent search - Chat GPT + AI search

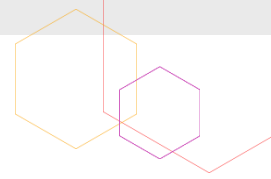


Technology (Deep learning)
: AI tech is growing up fast

Big & Optimized Data
: Big data + NMT + Optimized Condition



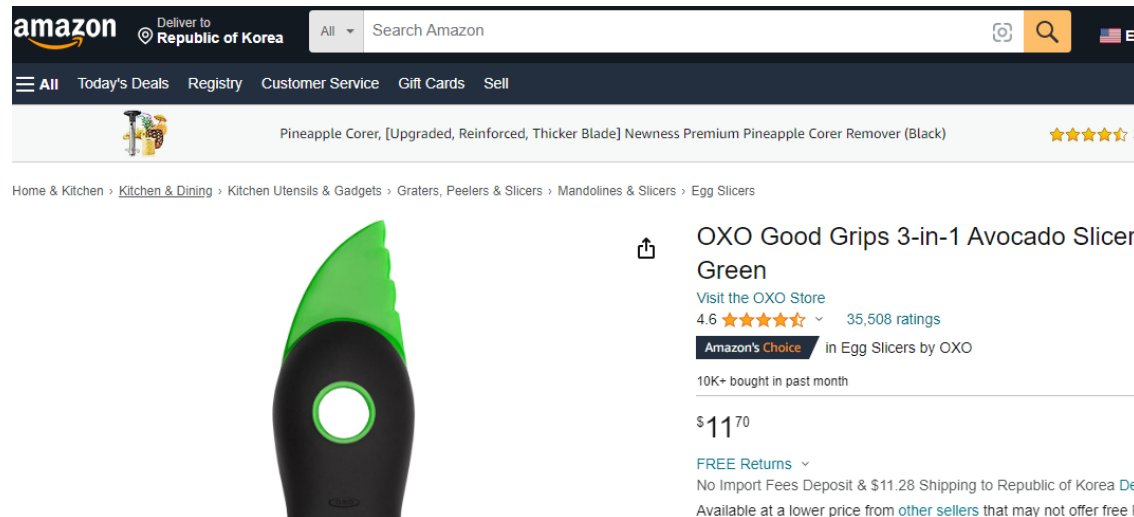
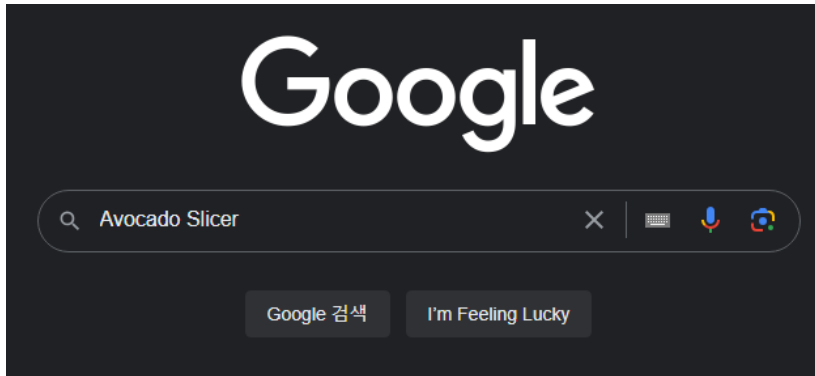
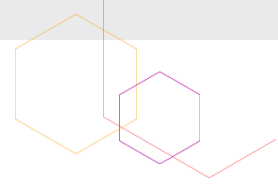
AI Patent search - Chat GPT + AI search



Avocado Slicer



AI Patent search - Chat GPT + AI search



Product Description

Split, pit, slice and scoop avocados safely and effectively with the OXO Good Grips 3-in-1 Avocado Slicer. This tool features a comfortable, non-slip grip and a blade that easily cuts avocados to their core without being sharp to the touch. The stainless steel center removes the pit with one quick twist. Use the fan blade to cut the ripe, delicious fruit into seven perfect pieces. Green body. Top-rack dishwasher safe.

AI Patent search - Chat GPT + AI search

AI Search

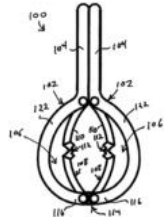
Multi Language searchable - English / Japanese / Chinese / Korean

Technical classification All

Sentence / file 123 Number

Split, pit, slice and scoop avocados safely and effectively with the OXO Good Grips 3-in-1 Avocado Slicer. This tool features a comfortable, non-slip grip and a blade that easily cuts avocados to their core without being sharp to the touch. The stainless steel center removes the pit with one quick twist. Use the fan blade to cut the ripe, delicious fruit into seven perfect pieces. Green body. Top-rack dishwasher safe.

76.91



+ 5

2. GRT US 11547234 B2 Re-search

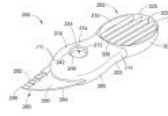
Hand tool for cutting and coring an avocado and a method of using same

The hand tool has a pair of hand tool elements pivotally joined at one distal end thereof. Each hand tool element has an elongated configuration having a handle portion, a tool portion extending distally away from the handle portion, and a concave blade extending sidewardly and oppositely inwardly relative to one another along each tool portion. Furthermore, each hand tool element has a cutting edge along at least one portion of each concave blade, and at least one avocado seed engaging portion located along, and protruding substantially radially distally away from, each concave blade.

Date : 2023.01.10 | Appl. No : 16/920706 | Appl. Date : 2020.07.04 | Applicant : Jo-Anne Simord | IPC(Main) : A47J-025/00 | Technical classification(Main) : Other fields-Furniture, games |

Core keywords

76.65



+ 5

3. GRT US 8726799 B2 Re-search

Avocado pitting device

An avocado pitting device comprises a housing having an inner surface defining a recess. The recess is configured to receive a pit of an avocado. An engagement member projects inwardly from the housing inner surface. The engagement member is configured to engage the pit and retain the pit within the recess such that the pit is removable with the housing from the avocado.

Date : 2014.05.20 | Appl. No : 13/215807 | Appl. Date : 2011.08.23 | Applicant : Helen of Troy Limited | IPC(Main) : A47J-023/00 | Technical classification(Main) : Other fields-Furniture, games |

Core keywords : Avocado Pitting Device, Surface Defining Recess, Receive Pit, Engagement Member

76.39



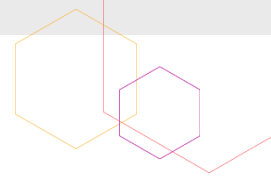
+ 5

4. EXP US 5533442 A Re-search

Avocado peeler and slicer

A tool for use on an avocado, for separating the meat of an avocado from its skin while simultaneously cutting the meat into separate slices, comprising a handle having a first end and a second end and cutting rings are mounted on one end of the handle. The cutting rings including a pair of ring element operably secured to the handle and extending away therefrom. The pair of ring elements comprise an inner ring and outer ring formed from a continuous band. The inner ring has an elongated guide slot operably positioned therein, and the outer ring has an elongated guide

AI Patent search - Chat GPT + AI search



US 8726799 B2

Avocado pitting device

Bibliographic

Claims(19)

Description

Legal Info.

Evaluation Grade

Trial&Appeal

Litigation

Chemical

SEPs

Similar Patent

Claim Citation Family My Folder Report

Abstract

An avocado pitting device comprises a housing having an inner surface defining a recess. The recess is configured to receive a pit of an avocado. An engagement member projects inwardly from the housing inner surface. The engagement member is configured to engage the pit and retain the pit within the recess such that the pit is removable with the housing from the avocado.

[View Description](#)

AI Summary

This patent describes an avocado pitting device designed to remove the pit from an avocado without damaging the fruit. The device includes a housing with a recess to receive the pit and engagement members to retain the pit within the recess. It also features a handle with a protuberance to receive the pit, along with engagement members to secure the pit within the protuberance. The device allows for easy removal of the pit from the avocado without causing damage to the fruit. Additionally, the device includes blade members for cutting and slicing the avocado, making it a comprehensive tool for avocado preparation.



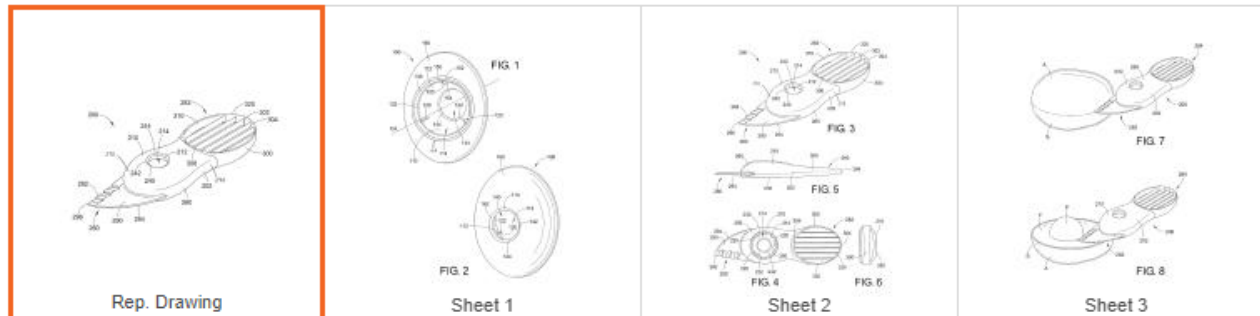
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Drawings

Drawings 5

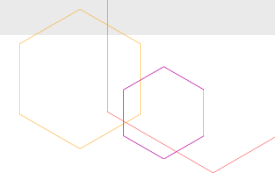
Drawing Editor



Exemplary Claim

Claim (Exemplary Claim)

AI Patent search - Chat GPT + AI search



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IP Expert

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AI Search

Multi Language searchable - English / Japanese / Chinese / Korean

Technical classification

All

Sentence / file

123 Number

Split, pit, slice and scoop avocados safely and effectively with the OXO Good Grips 3-in-1 Avocado Slicer. This tool features a comfortable, non-slip grip and a blade that easily cuts avocados to their core without being sharp to the touch. The stainless steel center removes the pit with one quick twist. Use the fan blade to cut the ripe, delicious fruit into seven perfect pieces. Green body. Top-rack dishwasher safe.

421 characters

Example

X Clear

Search

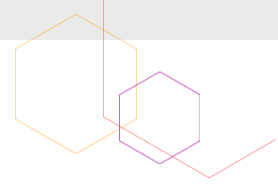
VS

((폴리에틸렌* 폴리에칠렌* 폴리에실린* 폴리에치렌* 폴리에스틸렌* 팔리에틸렌* 팔리에칠렌* 팔리에실린* 팔리에셀린* 팔리에치렌* 포리에틸렌* 포리에칠렌* 포리에실린* 포리에셀린* 포리에치렌*포리에스틸렌* 폴리올레핀* 폴리올레핀* 폴리에텐* ((폴리* 팔리* 포리* 수지* 고분자* 공중합* 중합체* 레진* 코폴리* 공폴리* resin* poly* copoly*) near (에틸렌* 에칠렌* 에실린* 에셀린* 에치렌* 에스틸렌* 올레핀* 에텐* ethene* olefin* ethylen*)) polyethylen* polyolefin* polyethene).ti,ab,cla. (C08F-010* C08L-023/04*).ipc.) AND (헥센* 헥센* 헥센* 1-헥센* 1-헥키센* 해키센* 해키센* 해키센* 1헥센* 1-hexene* hexene*).ti,ab,cla. AND (파이프* 바이뿌* 파이브* 도관* 수도관* 직관* 하수관* 합성수지관* 상수도관* 강관* 배관* 관체* 수로관* 파이핑* 송수관* 하수관* 폐수관* pipe*).dsc. AND ((BOREALIS* 보레알리스* 아토피나* atofina* (FINA adj RESEARCH) ((토탈 TOTAL) adj (페트로케미칼스* PETROCHEMICALS*)) 토탈페트로케미칼* 이네오스 ineos 바젤* basell 바스프* BASF* (CIBA adj HOLDING) (Ciba adj Geigy) 미쓰이케이컬* ((미쓰이 mitsui) adj (가가쿠* chemicals*)) 필립스* 세브론필립스* philips* 다우글로벌테크놀로지스* 다우케미칼* 다우케미칼* ((다우 dow) adj (글로벌 global) adj (테크놀로지* technologies*)) ((다우 dow) adj (케미칼* 케미컬* chemical*)) 닛폰포리에치렌* (japan adj polyethylene*) ((노바 nova) adj (케미칼* chem*)) sabic* DSM* 디에스엠* 로얄디에스엠* 사빅* 사우디베이직* ((사우디 Saudi) adj (베이직* basic*))).ap. (보레알리스* 보리아리스* 아토피나* (토탈 adj 페트로케미칼스*)) 이네오스 퍼즐* 비에어에스에프* (차바 adj 홀딩) 三井化学* 피리프스* (다우 adj 글로벌 adj 테크놀로지) (다우 adj 케미칼) 日本ポリエチレン* (노바 adj 케미칼스) 데이어에스에프* 사빅* (사우디 adj 베시크*))).apj. (510310277 511114678 511233496 500224380 504231966 500161100 508014132 510312628 509011363 508349470 503461629 504469606 501330477 505455130 513076604 513043455 506126071 396023948 508020155 000005887 502303175 502141050 502130582 303060664 505382548 503200752 503220392 508171804 502132128).ac. (KR001182 EN004244 EN012782 EN001256 EN008881 EN015340 EN016149 KR000759 EN008312 EN001114 EN003633 EN012951 KR001505 EN003565 EN001508 KR000033 EN000012 KR000171 EN000207 KR000065 KR000179 EN000048 EN000417 EN064329 EN005622 EN009156 EN004500 EN000547 KR000228 EN003732 KR001371 KR001372).wap.)



**Simple & Easy
& Accurate**

AI Patent search - Chat GPT + AI search



WIPS Global Hello, wips2012006

AI Search Multi Language searchable - English / Japanese / Chinese / Korean

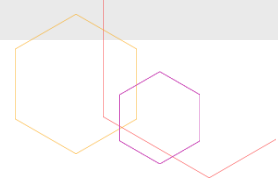
Split, pit, slice and scoop avocados safely and effectively with the OXO Good Grips 3-in-1 Avocado Slicer. This tool features a comfortable, non-slip grip and a blade that easily cuts avocados to their core without being sharp to the touch. The stainless steel center removes the pit with one quick twist. Use the fan blade to cut the ripe, delicious fruit into seven perfect pieces. Green body. Top-rack dishwasher safe.

...



Human Text, Language
: Invention note, Journal, Article, Paper, Product description etc.

AI Patent search - Chat GPT + AI search

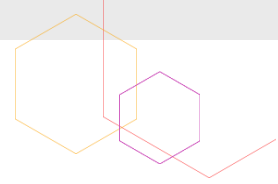


Chat GPT >

Chat + GPT 'Generative Pre-trained Transformer'

Based on a large language model, it enables users to refine and steer a conversation towards a desired length, format, style, level of detail, and language. known as prompt engineering, are considered at each conversation stage as a context. - from Wikipedia

AI Patent search - Chat GPT + AI search



AI patent search through ^{beta} conversation

Find the latest patents for problems you want to solve and technologies of interest through conversation.

What problem do you want to solve? Ask questions about the technology y



Technology to calculate target driving torque by measuring accelerator pedal operation amount

wireless automatic sensor lights

Method of integrating the cap plate, positive lead tab, and negative lead tab by insert injection molding

How to improve battery efficiency in electric vehicles

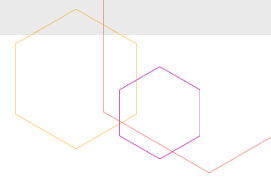
How to minimize clock delay of low-level drivers in display devices

Superconductor-related patents

Frame interpolation method using object motion prediction




AI Patent search - Chat GPT + AI search





beta


AI patent search through conversation



Find the latest patents for problems you want to solve and technologies of interest through conversation.



wireless automatic sensor lights 


 Technology to calculate target driving torque by measuring accelerator pedal operation amount


 Method of integrating the cap plate, positive lead tab, and negative lead tab by insert injection molding

How to improve battery efficiency in electric vehicles  How to minimize clock delay of low-level drivers in display devices

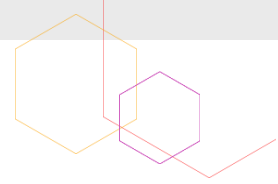
 Superconductor-related patents  Frame interpolation method using object motion prediction

 Construction methods that can reduce noise between floors  Patents that can help you quit smoking

 wireless automatic sensor lights



AI Patent search - Chat GPT + AI search



AI patent search through conversation 다른 질문하기

2024.01.16

hello!
What patent are you looking for? 11:42

11:42 wireless automatic sensor lights

1. "Wireless automatic sensor lights with adjustable sensitivity and range": This patent expands on the original concept by introducing a system that allows users to adjust the sensitivity and range of the sensor lights wirelessly. This innovation provides greater flexibility in customizing the behavior of the lights to suit different environments and user preferences.
2. "Integration of wireless automatic sensor lights with smart home systems": This patent focuses on integrating the wireless automatic sensor lights with smart home systems, enabling them to communicate with other smart devices and be controlled remotely through a central hub or smartphone app. This integration allows for advanced automation and customization options, enhancing the overall smart home experience.
3. "Energy-efficient wireless automatic sensor lights with solar power"

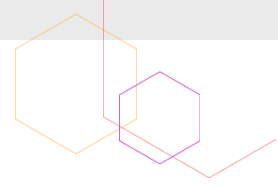
Generative



You can refine your search terms by talking to AI.



AI Patent search - Chat GPT + AI search



Text Editing

Or

Another / Next
Question

AI patent search through conversation 다른 질문하기

11:42 wireless automatic sensor lights

1. "Wireless automatic sensor lights with adjustable sensitivity and range": This patent expands on the original concept by introducing a system that allows users to adjust the sensitivity and range of the sensor lights wirelessly. This innovation provides greater flexibility in customizing the behavior of the lights to suit different environments and user preferences.

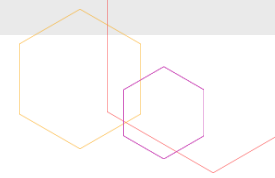
2. "Integration of wireless automatic sensor lights with smart home systems": This patent focuses on integrating the wireless automatic sensor lights with smart home systems, enabling them to communicate with other smart devices and be controlled remotely through a central hub or smartphone app. **This integration allows for advanced automation and customization options, enhancing the overall smart home experience.**

3. "Energy-efficient wireless automatic sensor lights with solar power capabilities": This patent introduces a sustainable approach by incorporating solar power capabilities into the wireless automatic sensor lights. The system includes solar panels to harness energy from the sun, reducing reliance on traditional power sources and making the lights more environmentally friendly and cost-effective.

4. "Enhanced security features for wireless automatic sensor lights": This patent enhances the security aspects of the sensor lights by incorporating features such as motion tracking, facial recognition, and integration with security cameras. These additional features

Example You can refine your search terms by talking to AI.

AI Patent search - Chat GPT + AI search



Basic search Number search Step search Search **AI Search** Drawing search

korea USA japan china EP PCT ?

Sentence/File number Technology field entire

1. "Wireless automatic sensor lights with adjustable sensitivity and range": This patent expands on the original concept by introducing a system that allows users to adjust the sensitivity and range of the sensor lights wirelessly. This innovation provides greater flexibility in customizing the behavior of the lights to suit different environments and user preferences. 2. Integration of wireless automatic sensor lights with smart home systems: This patent focuses on integrating the wireless automatic sensor lights with smart home systems, enabling them to communicate with other smart devices and be controlled remotely through a central hub or smartphone app. This integration allows for advanced automation and customization options, enhancing the overall smart home experience. 3. "Energy-efficient wireless automatic sensor lights with solar power capabilities": This patent introduces a sustainable approach by incorporating solar power capabilities into the wireless automatic sensor lights. The system includes solar panels to harness energy from the sun, reducing reliance on traditional power sources and making the lights more environmentally friendly and cost-effective. 4. "Enhanced security features for wireless automatic sensor lights": This patent enhances the security aspects of the sensor lights by incorporating features such as motion tracking, facial recognition, and integration with security cameras. These additional features provide advanced security monitoring and alert capabilities, making the wireless automatic sensor lights a comprehensive part of a home or commercial security system.

1,624 characters

Re-search history AI patent search through conversation Search example reset search

View results by country korea USA japan china EP PCT

Search result filter

AI patent search through conversation

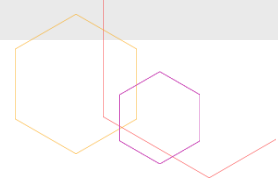
2024.01.16



hello!
What patent are you looking for?

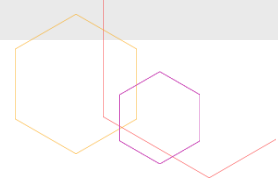
11:47

AI Patent search - Chat GPT + AI search



WIPS Global

General IP Working Process



❖ Patent search & analysis working process.



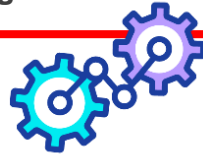
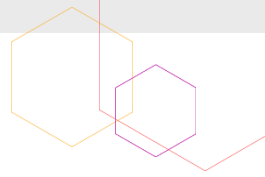


AI tech Classification

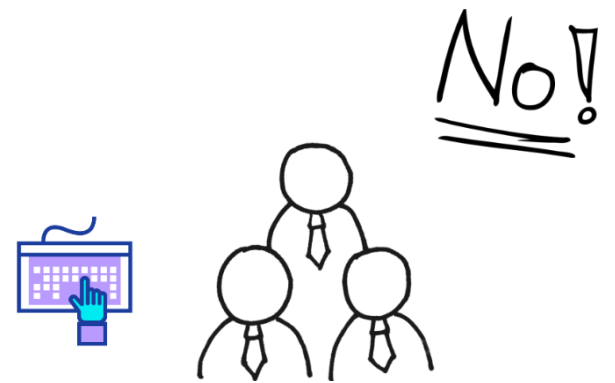
with

Prism

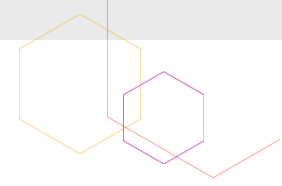
AI tech Classification - Prism



70 ~ 80% of whole working time

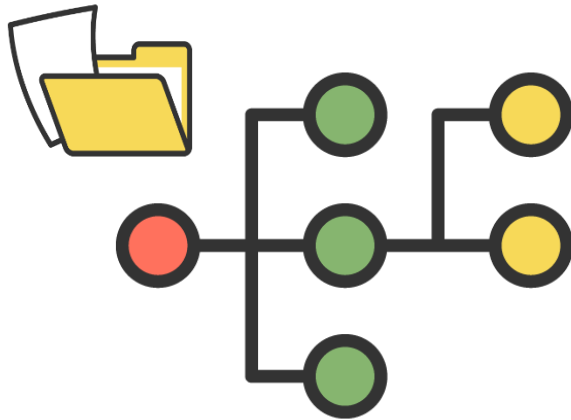


By human resource



AI tech Classification - Prism

The answer is AI classifier.



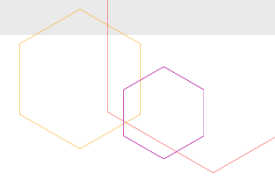
To Save

Much Time

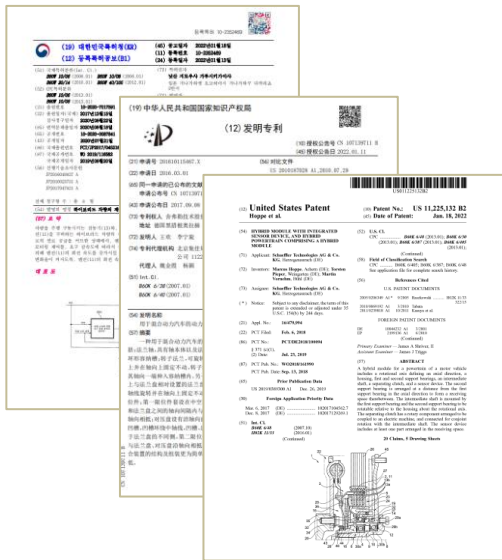
Much Effort

Much Cost

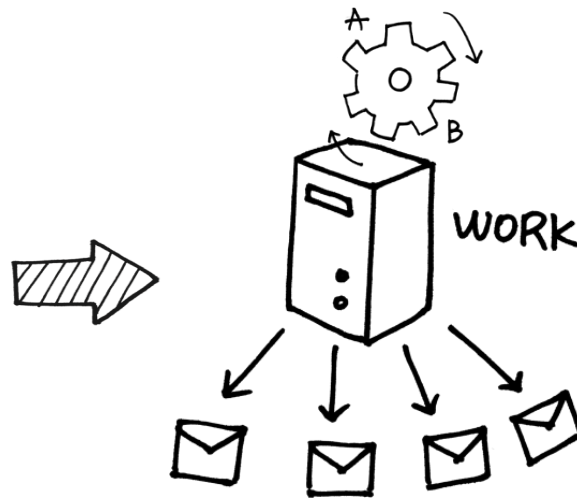
AI tech Classification - Prism



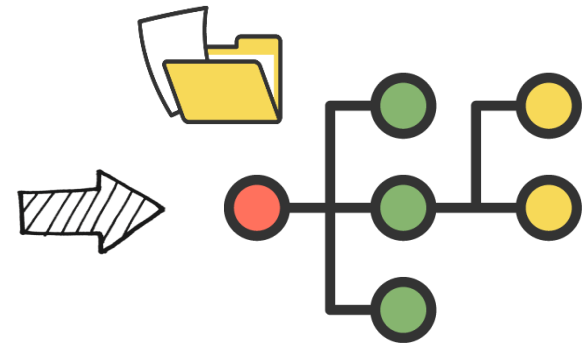
What we want ?



Unclassified
Patents Documents

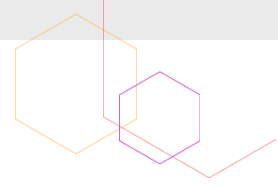


AI classifier



Automatic
AI classification

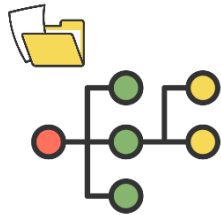
AI tech Classification - Prism



However, There is no standard.

Every single user have various purpose and categorization they want.

Ex > *Robotic vacuum cleaner*



Depth 0	Depth 1
Robotic vacuum cleaner	suction part
	sensing unit
	camera
	drive part
	battery
	control

Classification Tree 1
(structure)

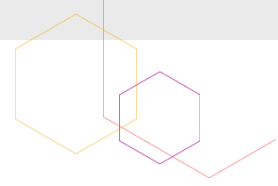
Depth 0	Depth 1
Robotic vacuum cleaner	complex method
	brush method
	vacuum suction method
	□
	□
	□

Classification Tree 2
(method)

Depth 0	Depth 1
Robotic vacuum cleaner	Obstacle recognition technology
	Self-Location Recognition Technology
	Floor recognition technology
	Cleaning condition detection technology
	□
	□

Classification Tree 3
(technology)

AI tech Classification - Prism



Solution ??

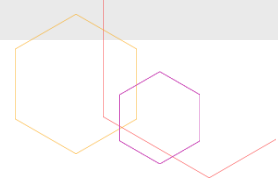


The answer is
Optimized, Custom trained AI classifier

There is no Standard classifier

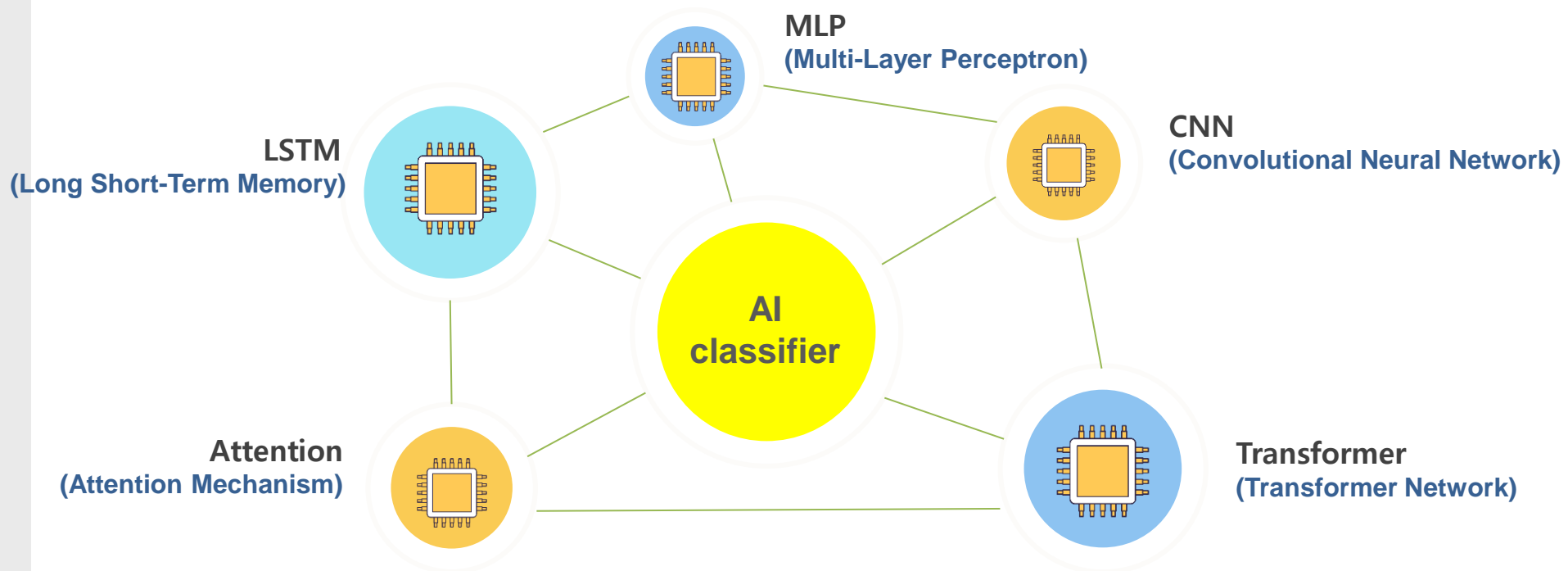
Want to have **my own classifier**
which is **trained by my data**

AI tech Classification - Prism

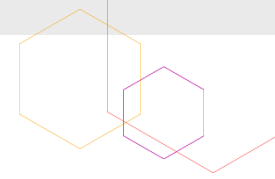


How we use AI ?

We use 5 different AI to make best performance.

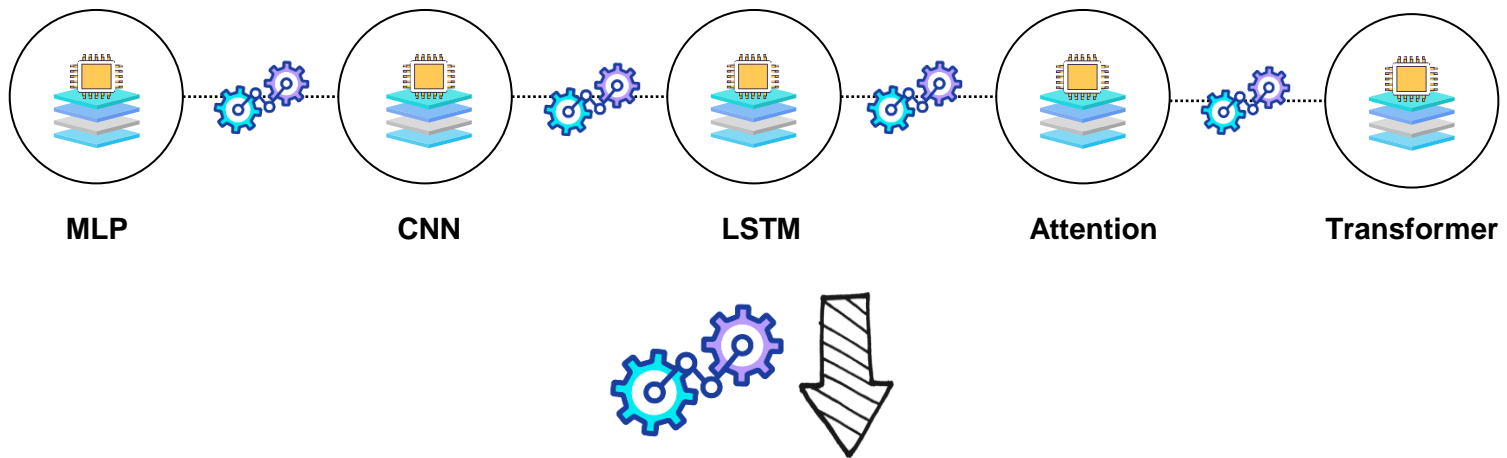


AI tech Classification - Prism

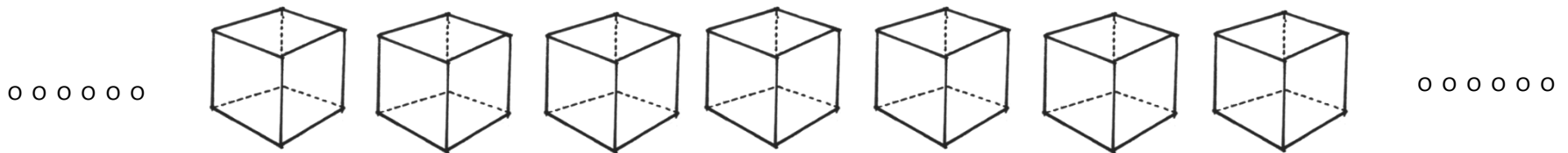


How It works ?

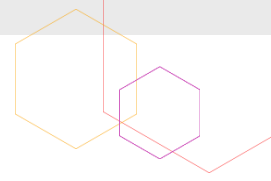
5 different AI makes



Create 70 INDUCER * INDUCER is not trained model

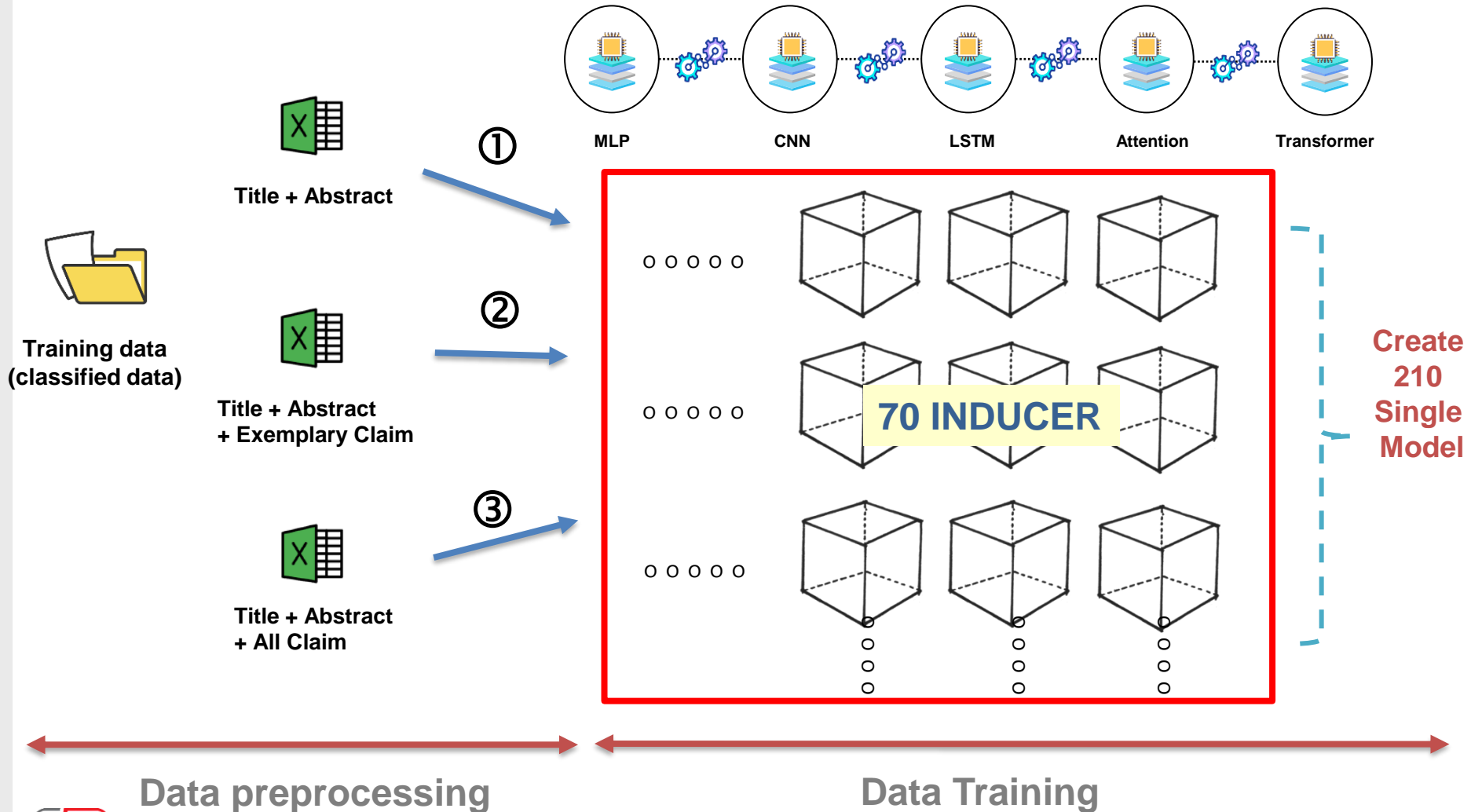


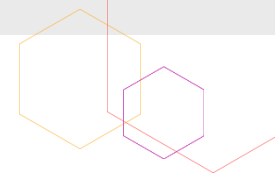
AI tech Classification - Prism



How It works – Making Model

Training with 3 different way

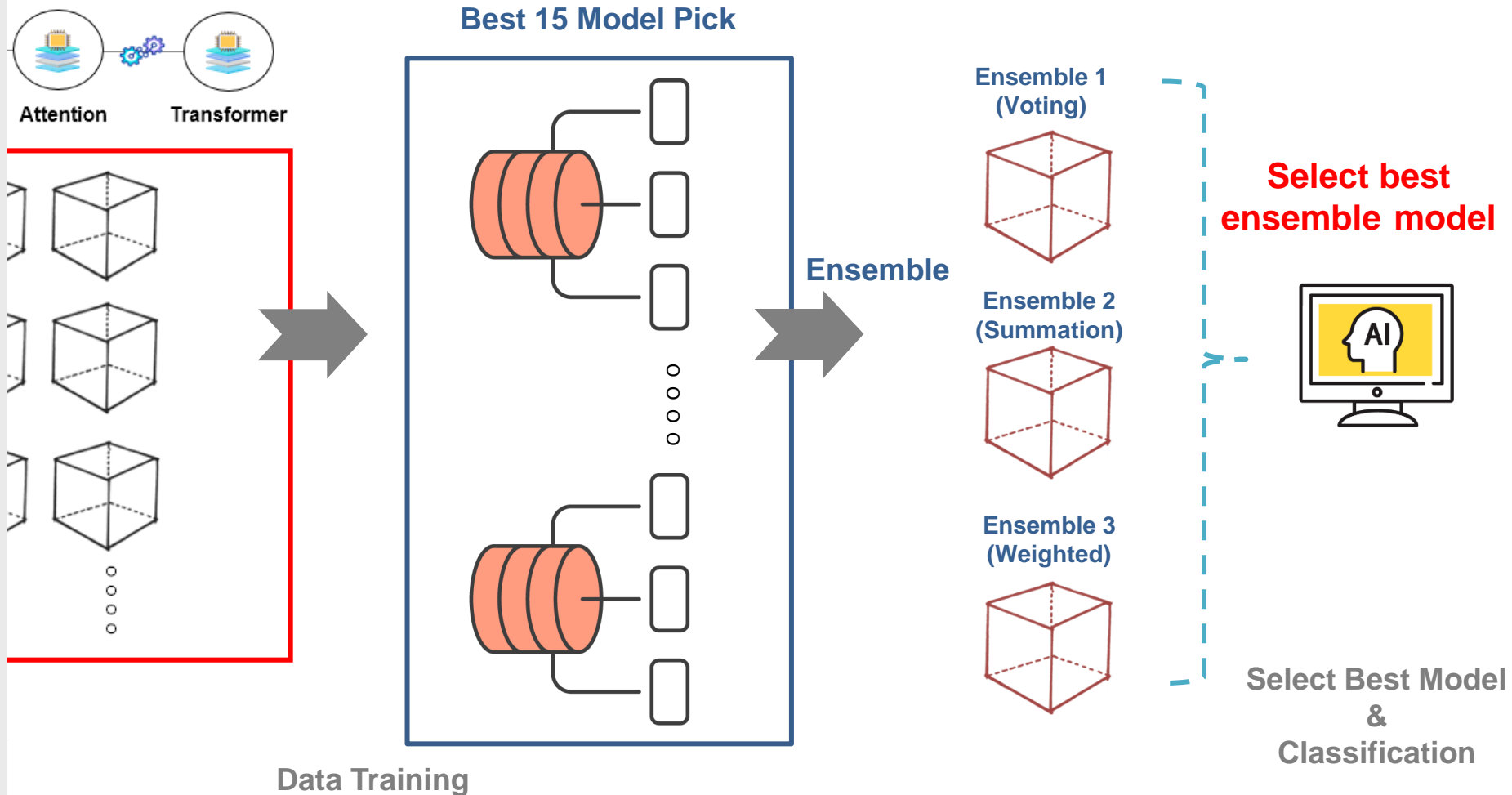




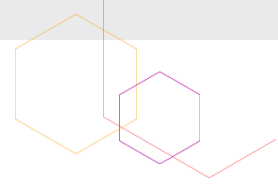
AI tech Classification - Prism

How It works – Making Model

* Ensemble is selection of best estimate values



AI tech Classification - Prism

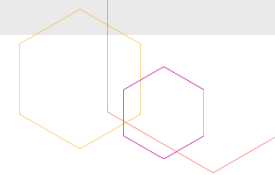


Solution !!



Now,
have **my own classifier** which is
trained by my data.

AI tech Classification - Prism



Performance



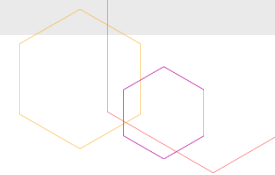
Test Data

Data set #1 : Inorganic chemistry(C01) sub class

- Inorganic chemistry(C01) sub class, 5 subclass classification.
- 200 cases for each category.
- Total 1,000 cases.

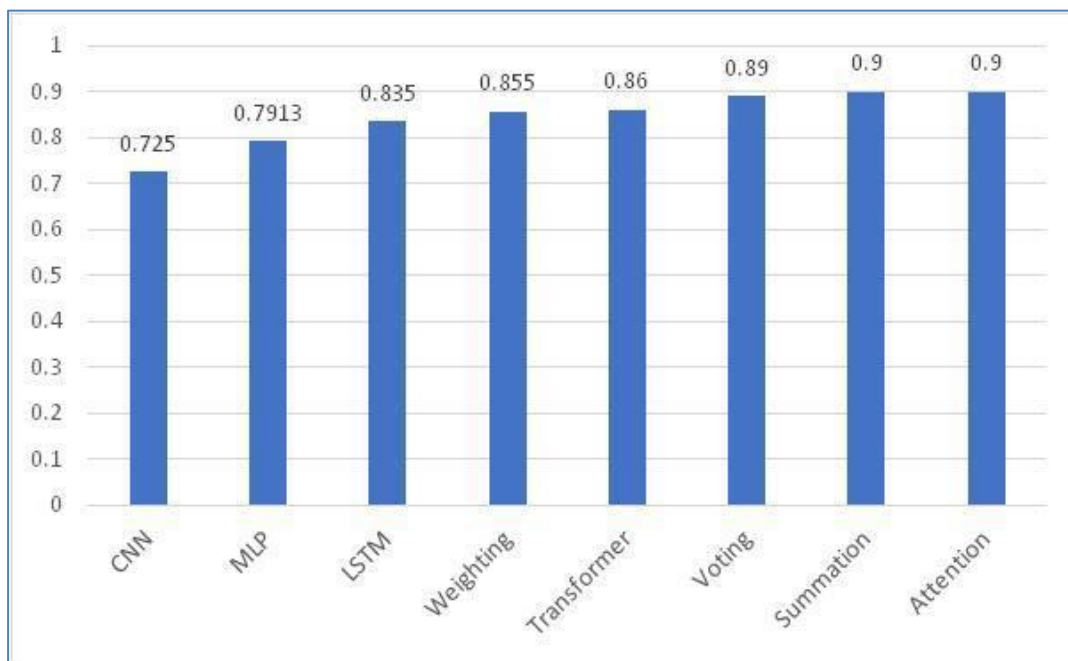
	Training Data	Test Data (Inference)	Total
C01B	160	40	200
C01C	160	40	200
C01D	160	40	200
C01F	160	40	200
C01G	160	40	200
Total	800	200	1,000

AI tech Classification - Prism

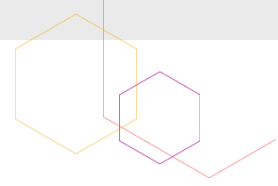


Performance

- Data set #1 : Inorganic chemistry(C01) sub class. 5 category.
- 800 patent documents training. 200 patent documents Inference.
- Accuracy 90% : 180 cases are correct among 200 cases.



AI tech Classification - Prism



Performance



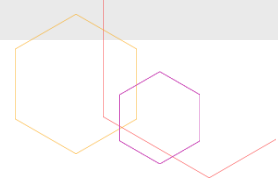
Test Data

Data set #2 : BASIC ELECTRIC ELEMENTS (H01) sub class.

- Basic Electric Elements(H01) sub class, 14 sub class classification.
- 200 cases for each category.
- Total 2,800 cases.

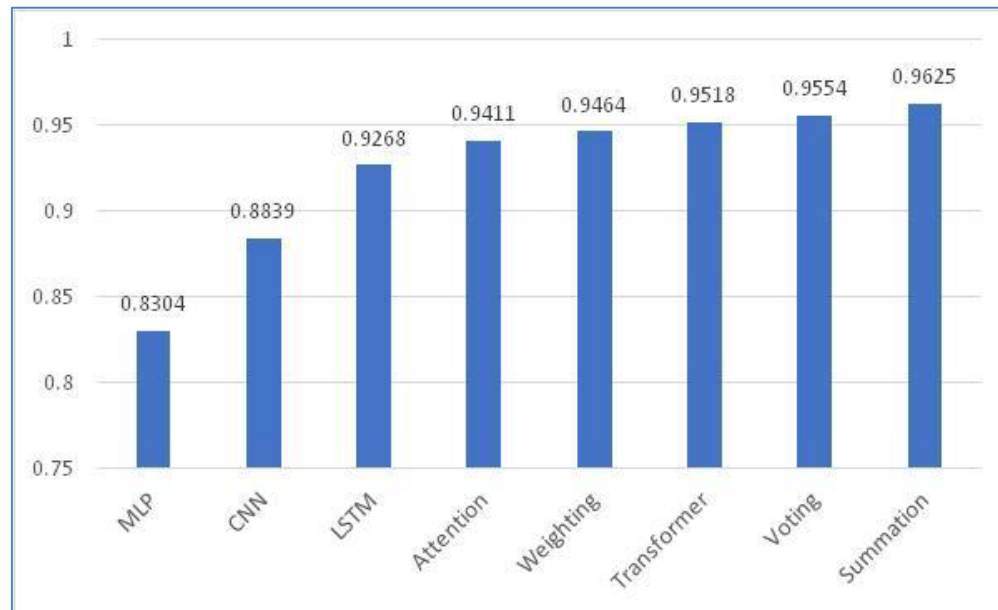
	Training Data	Test Data (Inference)	Total
H01B	160	40	200
H01C	160	40	200
H01D	160	40	200
...
H01S	160	40	200
Total	2,240	560	2,800

AI tech Classification - Prism

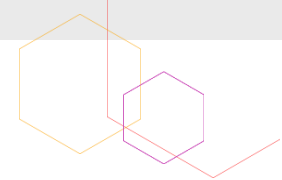


Performance

- Data set #2 : Basic Electric Elements(H01) sub class, 14 sub class classification.
- 2,240 patent documents training. 560 patent documents Inference.
- Accuracy 96.25% : 539 cases are correct among 560 cases.



AI tech Classification - Prism



Performance



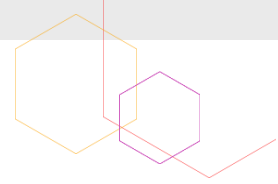
Test Data

Data set #3 : Data set #1 + Data set #2

- Inorganic chemistry(C01) sub class , Basic Electric Elements(H01) sub class.
19 sub class classification.
- 200 cases for each category.
- Total 3,800 cases.

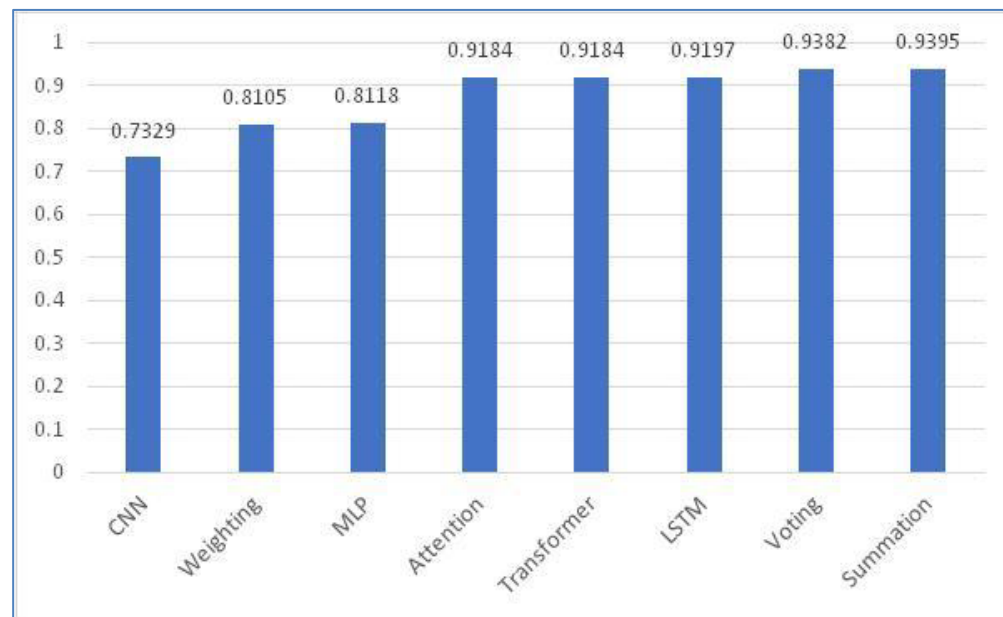
	Training Data	Test Data (Inference)	Total
C01B	160	40	200
C01C	160	40	200
...
...
H01S	160	40	200
Total	3,040	760	3,800

AI tech Classification - Prism

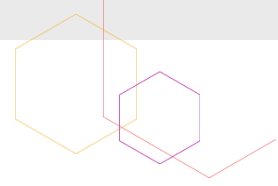


Performance

- **Data set #3 : Data set #1 + Data set #2 , 19 sub class classification.**
- **3,040 patent documents training. 760 patent documents Inference.**
- **Accuracy 93.95% : 714 cases are correct among 760 cases.**

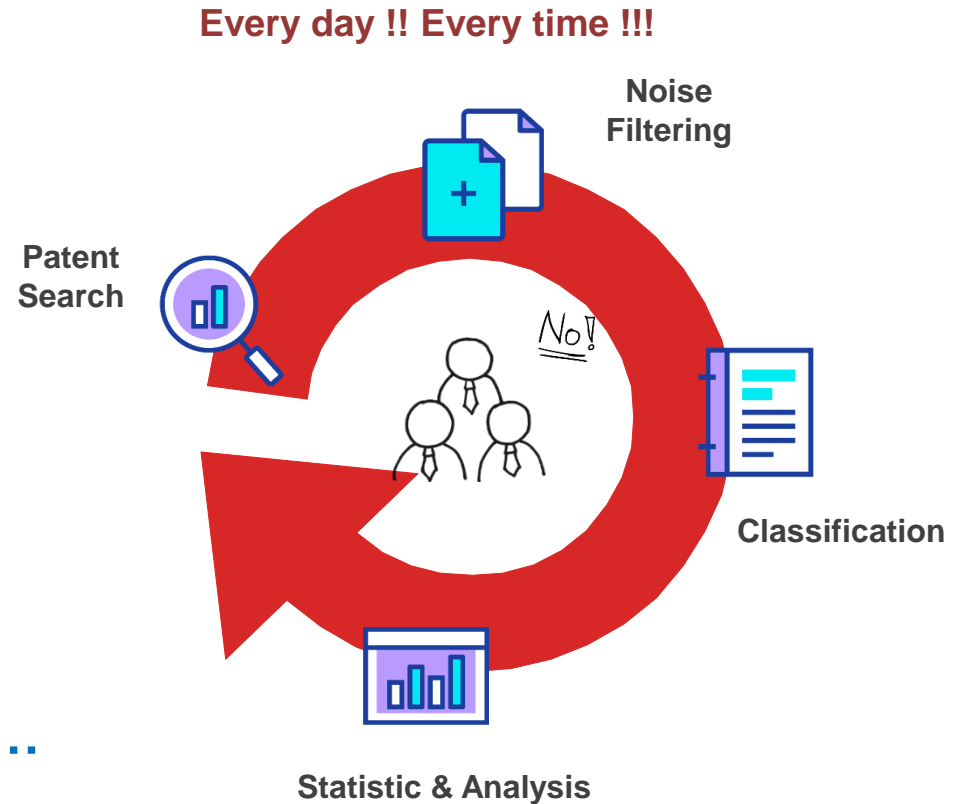


AI tech Classification - Prism

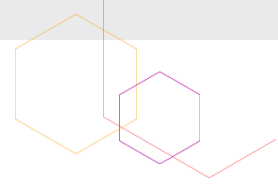


Repetitive working of patent classification

- Update portfolio
- Update technology trends
- Update market trends
- Update competitors trends

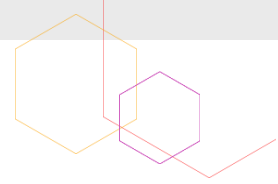


AI tech Classification - Prism



PRISM

General IP Working Process



❖ Patent search & analysis working process.





*** Most Common and Important question is

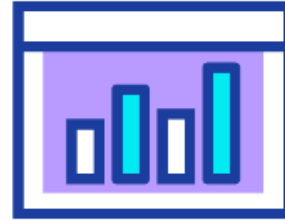
- **Is it exist or not ? (It means I can study this ?)**

Which part I can study ? What is next study ?

- **Can I go to market with my technology or products ??**

No Risk ?? Sure ??



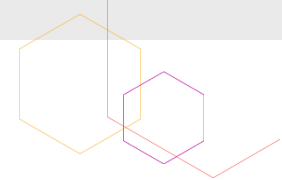


Easy analysis & Report





with

InsightPlus

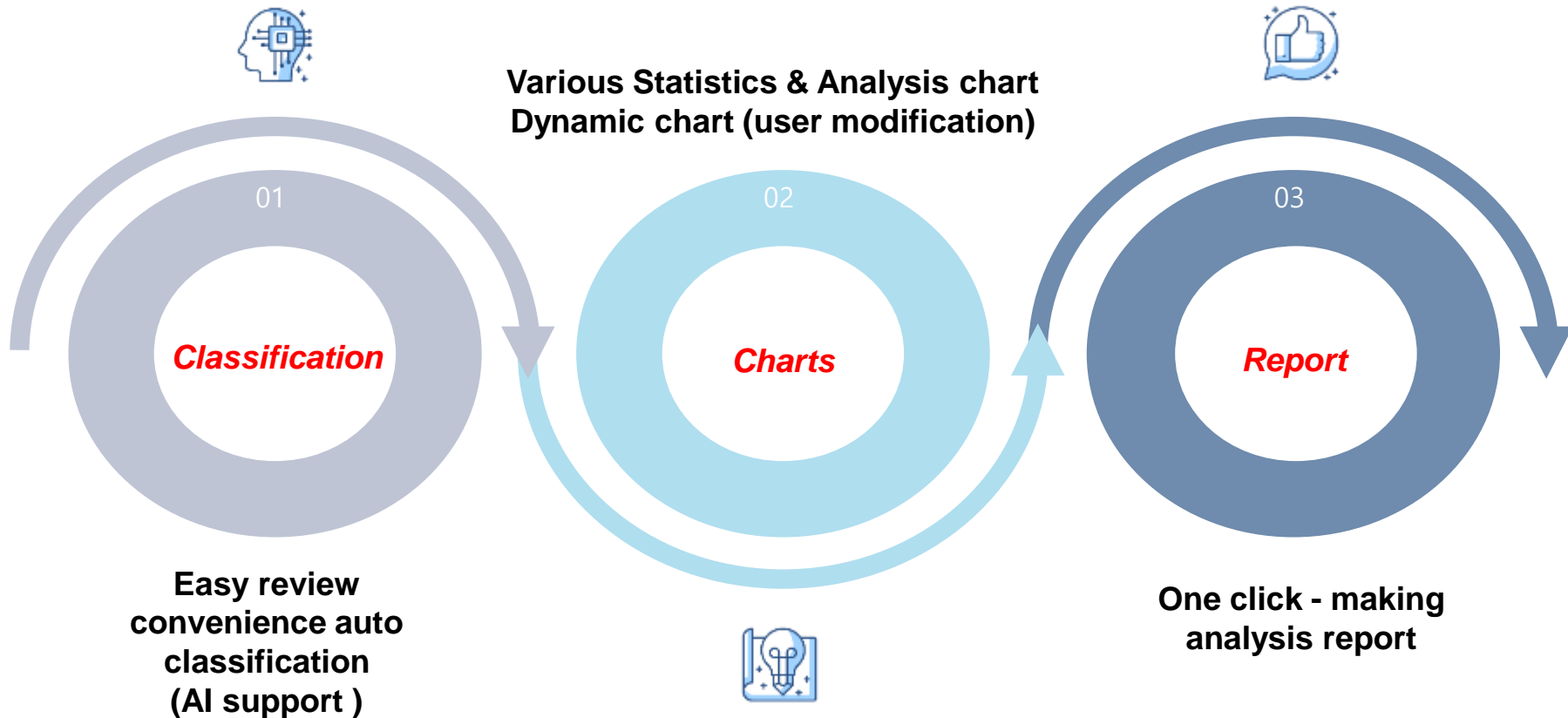
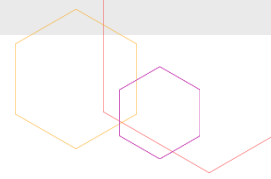




Easy analysis & Report - InsightPlus

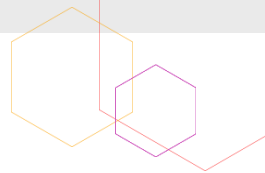
<p>Deep learning algorithm AI automatic classification</p>  <ul style="list-style-type: none">· AI classification based on custom criteria· 1st, 2nd, 3rd rank AI classification result value	<p>Analysis results at a glance Automatic Charts</p>  <ul style="list-style-type: none">· One-click trend analysis chart· Charts settings and editing in detail
<p>Generating based on custom Report</p>  <ul style="list-style-type: none">· Various layouts for reports· Shareable and workable web report	<p>Maximize work efficiency User conveniences</p>  <ul style="list-style-type: none">· Support conveniences for manual classifying· Custom family applicant

Easy analysis & Report - InsightPlus



< Save your time and effort >

Easy analysis & Report - InsightPlus



WIPS Global Insight Plus “ Semiconductor 01 ” 2023.07.06 am 11:46 + Add Target English ?

806 / 527 > All > Unclassified 70 Selected 2 cases

AI [Icons]

Tree [Settings]

- A 60
- B 175
- C 37
- D 52
- E 122
- F 95
- G 161
- H 34
- Unclassified 70
- Recycle bin 0

TIP Guide for AI classification result

1. ★ DEPOSITION APPARATUS INCLUDING AN ISOTHERMAL PROCESSING ZONE (등온 처리 ...)

- Unclassified KR 10-2391608 B1 (2022.04.25) 10-2

1-1. Deposition apparatus including an isothermal processing zone
US 10808317 B2 (2020.10.20) 13/934624 (2013.07.03)

1-2. Plasma processing apparatus including an isothermal processing zone (包括等温处理区的等离子体处理设备)
CN 104282530 B (2018.11.16) 2014-10317527 (2014.0)

1-3. DEPOSITION APPARATUS INCLUDING AN ISOTHERMAL PROCESSING ZONE (등온 처리 존을 포함하는 증착 장...)
KR 10-2264728 B1 (2021.06.08) 10-2014-0083260 (20

2. ★ METHODS AND APPARATUS FOR SELECTIVE DEPOSITION OF COBALT IN SEMICONDUCTOR...

- Unclassified KR 10-2343235 B1 (2021.12.21) 10-2

2-1. Methods and apparatus for selective deposition of cobalt in semiconductor processing
US 9153482 B2 (2015.10.06) 14/171483 (2014.02.03)

3. ★ How to carry out electroplating on the electroplating device for depositing metal on a...

- Unclassified JP 6427316 B2 (2018.11.02) 2013-23

> KR 10-2343235 B1 [Icons]

Abstract/ Claims Description Bibliography EN KR CN Drawing(13)

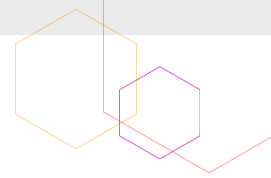
METHODS AND APPARATUS FOR SELECTIVE DEPOSITION OF COBALT IN SEMICONDUCTOR PROCESSING (반도체 프로세싱에서 코발트의 선택적 증착 방법 및 장치)

Abstract

Provided are a method and an apparatus for selective deposition of cobalt on a copper wire under existence of a dielectric material exposed in a semiconductor processing. A metal-formed cobalt is selectively deposited on the copper under existence of the dielectric material by contacting the surface of a prepared semiconductor substrate with an organic cobalt compound under the existence of a reducing agent. The surface preparing step includes simultaneous use of a H₂ process and UV light radiation. After the surface of the semiconductor substrate is prepared, the semiconductor substrate contacts with the organic cobalt compound including a substituted or unsubstituted aryl ligand under the existence of the reducing agent for selectively depositing cobalt on copper. A plasma process is not needed during or after cobalt deposition, and the method can be used while not

Representative Drawings

Easy analysis & Report - InsightPlus



806 / Family group 527

AI Classify

Tech Tree + Statistics

	Sum	Trained	AI
A CVD	60	60	0
B Etching	175	175	0
C Exposure Tr...	37	37	0
D Heat Treatment	52	52	0
E Measuremen...	122	122	0
F Packaging	95	95	0
G Polishing (C...	161	161	0
H Washing	34	34	0
- Unclassified			70

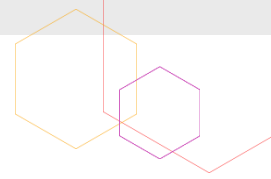
All > Unclassified 70

Selected 2 cases

- 1. ★ DEPOSITION APPARATUS INCLUDING AN ISOTHERMAL PRO...
 - Unclassified KR 10-2391608 B1 (2022.04.25) | 10-2021-007416
 - 1-1. Deposition apparatus including an isothermal processing zone
US 10808317 B2 (2020.10.20) | 13/934624 (2013.07.03) | C23C-016
 - 1-2. Plasma processing apparatus including an isothermal processing z...
CN 104282530 B (2018.11.16) | 2014-10317527 (2014.07.03) | H01L
 - 1-3. DEPOSITION APPARATUS INCLUDING AN ISOTHERMAL PRO...
KR 10-2264728 B1 (2021.06.08) | 10-2014-0083260 (2014.07.03) | H
- 2. ★ METHODS AND APPARATUS FOR SELECTIVE DEPOSITION OF COBALT IN SEMICONDUCTOR PROCESSING (반도체 프로세싱에서 코발트의 선택적 증착 방법 및 장치)
 - Unclassified KR 10-2343235 B1 (2021.12.21) | 10-2015-0017043 (2015.02.03) | C23C-016/18 | LAM RESEARCH
 - 2-1. Methods and apparatus for selective deposition of cobalt in semiconductor processing
US 9153482 B2 (2015.10.06) | 14/171483 (2014.02.03) | H01L-021/44 | LAM RESEARCH
- 3. ★ How to carry out electroplating on the electroplating device for depositing metal on a wafer board, and a wafer board (웨이퍼基板上に金属を堆積するための電気めっき装置およびウェル基板上に電気めっきする方法)
 - Unclassified JP 6427316 B2 (2018.11.02) | 2013-239467 (2013.11.20) | C25D-017/10 | LAM RESEARCH

- A CVD
- B Etching (을 포함하는 증착 장치)
- C Exposure Treck (LAM RESEARCH)
- D Heat Treatment
- E Measurement Ana...
- F Packaging (本处理设备)
- G Polishing (CMP)
- H Washing (을 포함하는 증착 장치)
- Unclassified

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806 / Family group 527

AI Classify

Tech Tree + Statistics

	Sum	Trained
A CVD	60	60
B Etching	175	175
C Exposure Tr...	37	37
D Heat Treatment	52	52
E Measuremen...	122	122
F Packaging	95	95
G Polishing (C...	161	161
H Washing	34	34

Recycle bin 0

All > Unclassified 70 Selected 2 cases

1. ★ DEPOSITION APPARATUS INCLUDING AN ISOTHERMAL PROCESSING ZONE (등온 처리 존을 포함하는 증착 장치)
- Unclassified KR 10-2391608 B1 (2022.04.25) | 10-2021-0074167 (2021.06.08) | C23C-016/455 | LAM RESEARCH

4. ★ METHODS FOR CONTROLLING PLASMA CONSTITUENT FLUX AND DEPOSITION DURING SEMICONDUCTOR FABRIC AND APPARATUS FOR IMPLEMENTING THE SAME (반도체 제작 중 플라즈마 구성성분 플럭스 및 증착 제어 방법, 및 그

✓ AI automatically classifies unclassified documents by learning user's documents.

✓ This is a real-time operating which may take some time.

Classify the 70 unclassified documents

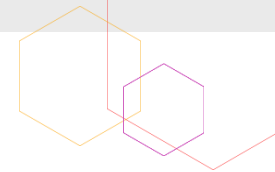
Classify higher similarity than the selected level

The results are provided only for the higher similarity than the selected. Less than the selected similarity is left unclassified.

90 % 80 % 70 % **60 %** 50 % 40 % 30 %

Proceed Cancel

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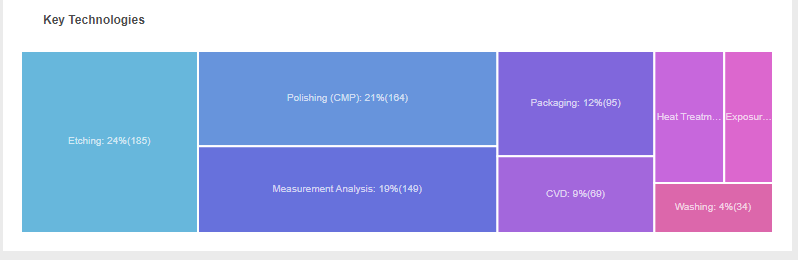
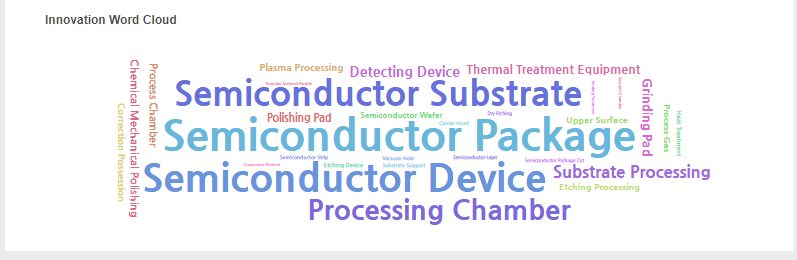
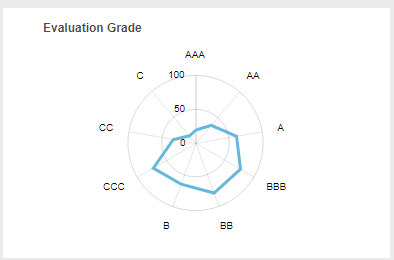
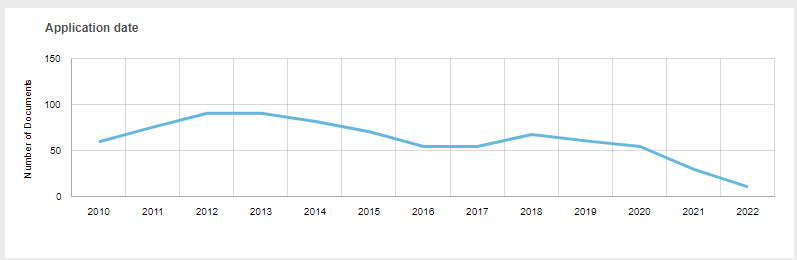
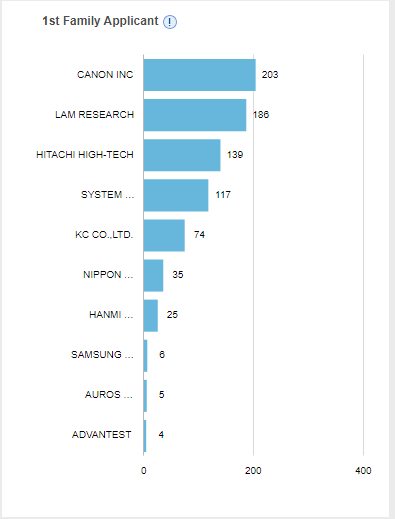
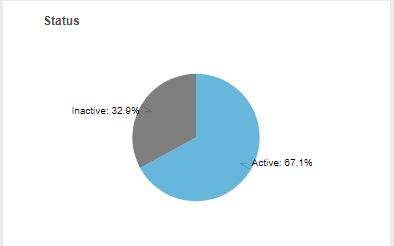
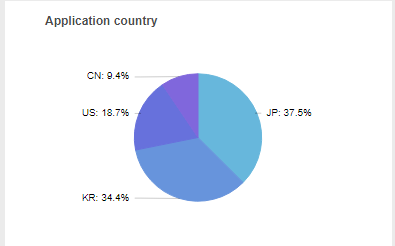
- Analyzed 806
- Summary 7 >
- Country 7 >
- Company 4 >
- Technology 3 >
- Custom Analysis 3 >

Summary of Application Trend

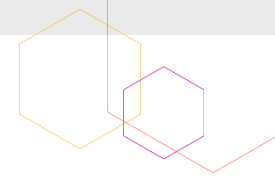
806 In the analyzed

Active **540** Inactive **265**

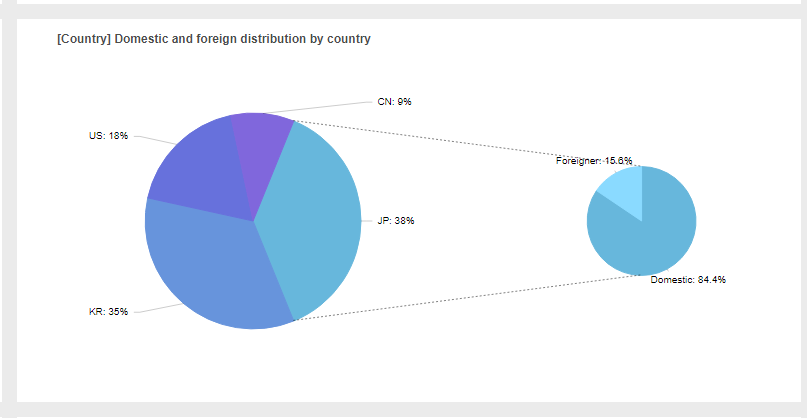
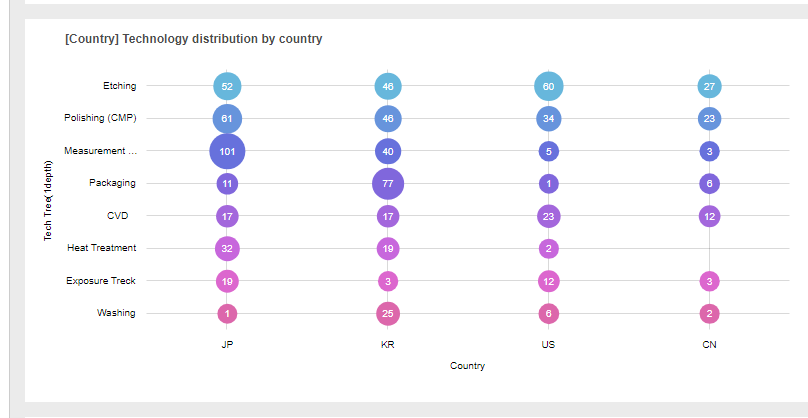
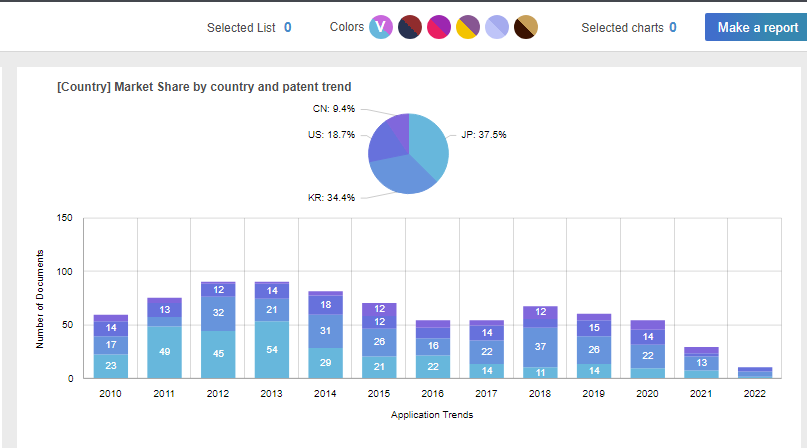
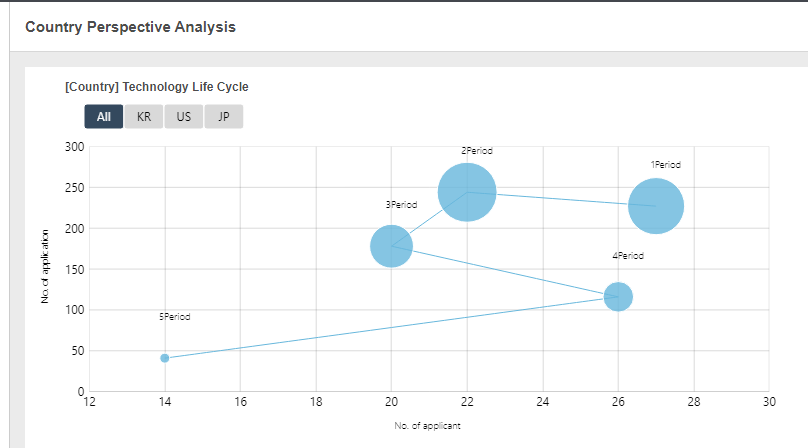
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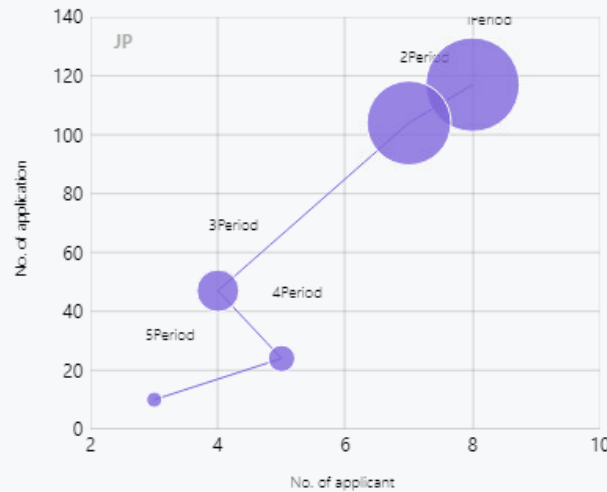
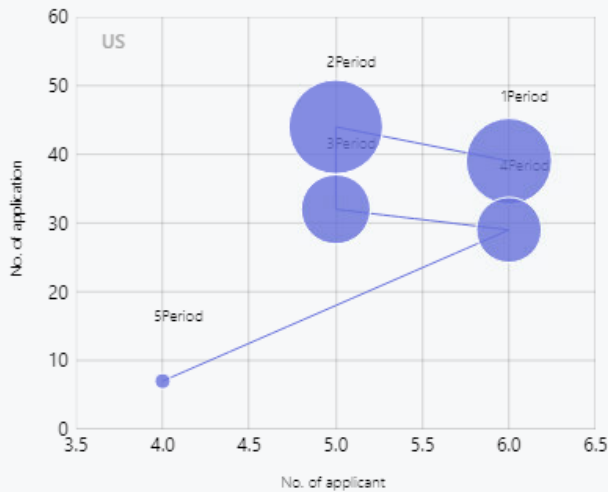
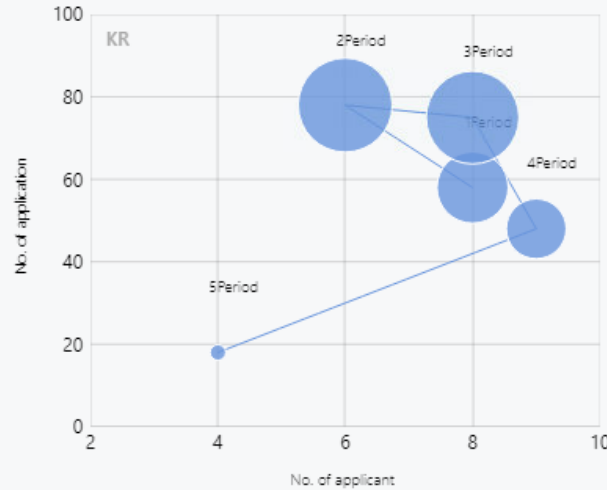
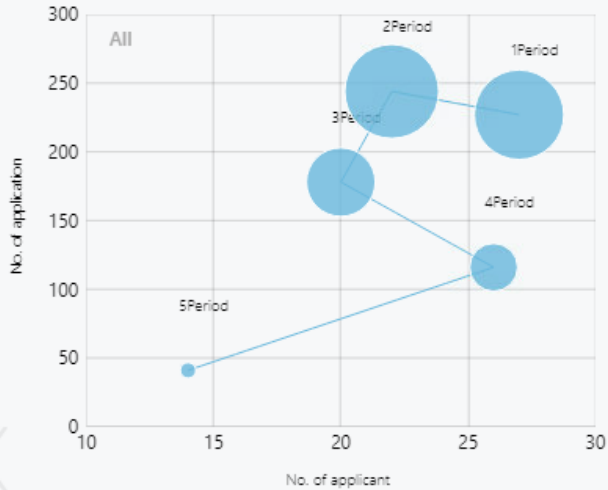


Analyzed 806
 Summary 7 >
 Country 7 >
 Company 4 >
 Technology 3 >
 Custom Analysis 3 >



Determine the stage of the technology by analyzing the changes in the number of applications and applicants from the past to the present.

! 5 Stages of Technology Life Cycle



Save settings

Reset



Chart type

Connected Scatterplot

Display

 Labels X-axis title Y-axis title

Font size

Labels

Small



Setting 1

Country

Layout

 4 1

Select the country

 All KR US JP CN

Colors

 All KR US JP

Setting 2

Application Date - Yearly

Data Range

All

2010 ~ 2022

Apply

Periods

 OFF ON

5Period

1 Period 2010 - 2012

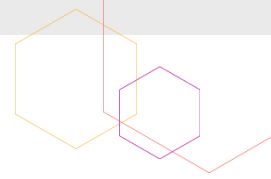
2 Period 2013 - 2015

3 Period 2016 - 2018

4 Period 2019 - 2020

5 Period 2021 - 2022

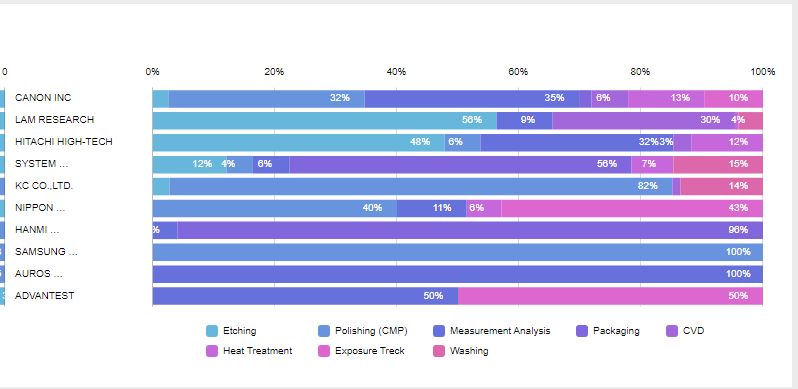
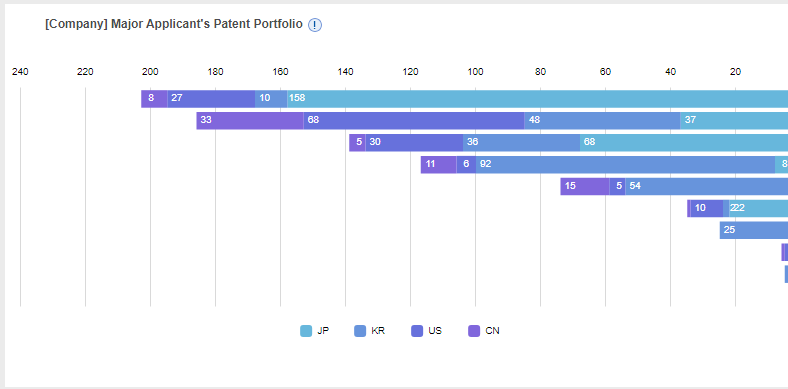
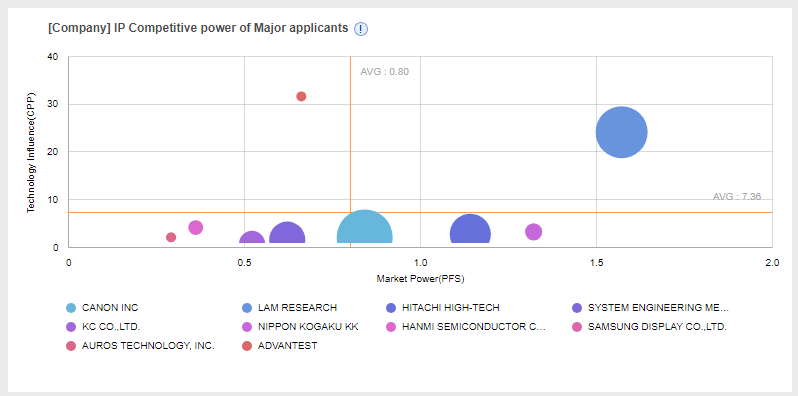
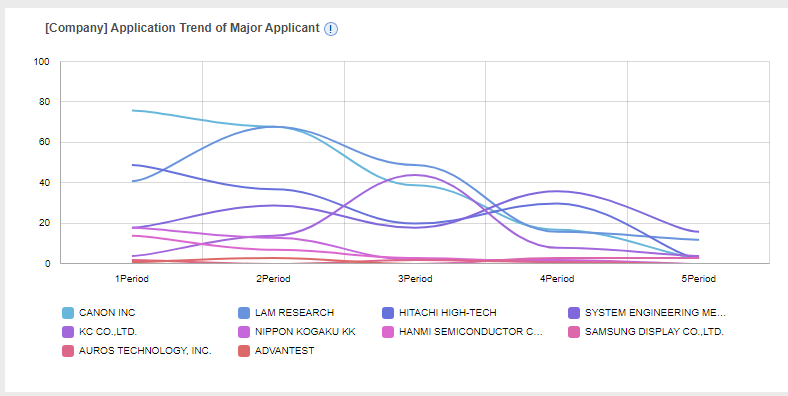
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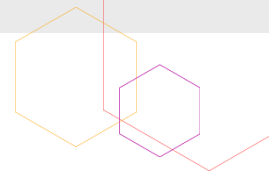
- Analyzed 806
- Summary 7 >
- Country 7 >
- Company 4 >
- Technology 3 >
- Custom Analysis 3 >

Company Perspective Analysis

Selected List 0 Colors [Color Selection] Selected charts 0 [Make a report](#)



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- Analyzed 806
- Summary 7 >
- Country 7 >
- Company 4 >
- Technology 3 >
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Technology Perspective Analysis

Selected List 0

Colors

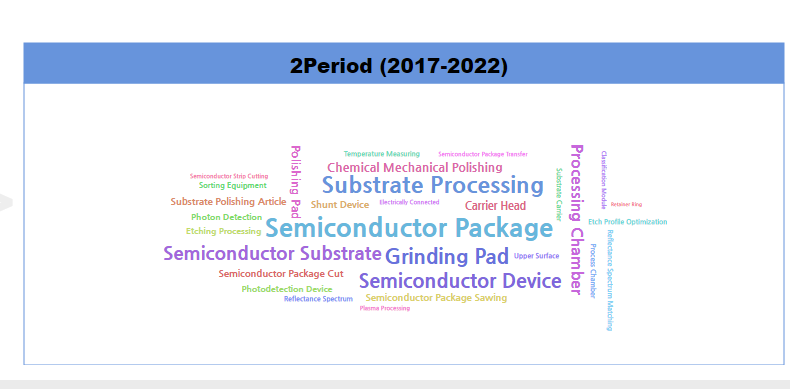
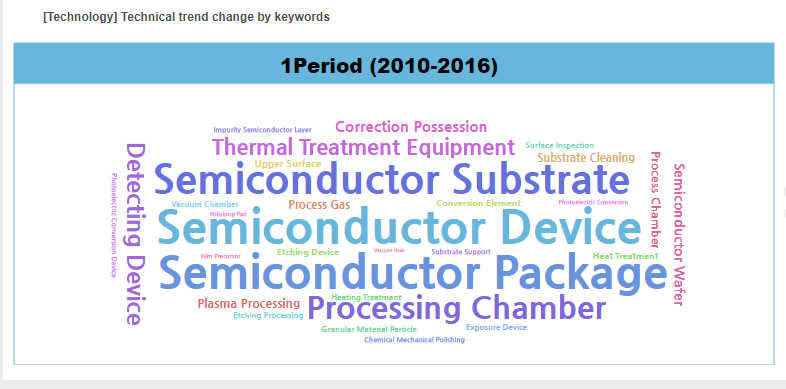
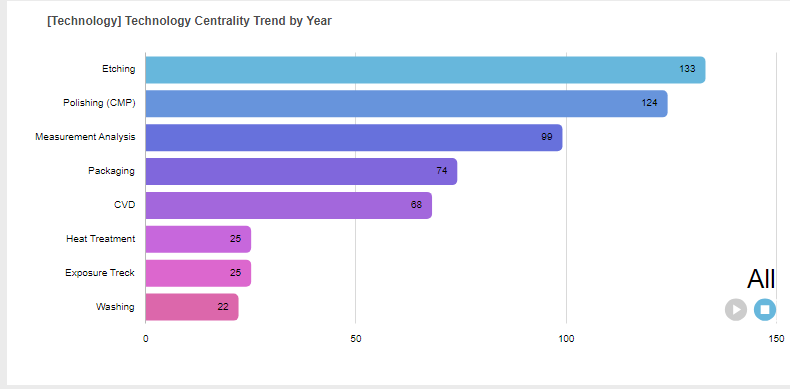
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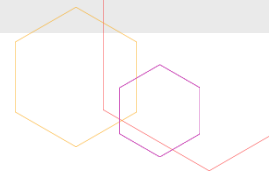
[Technology] Technology focus by Applicants

Tech Trek (top5)	CANON INC	LAM RESEARCH	HITACHI HIGH-TECH	SYSTEM ...	KCC CO., LTD.	NIPPON ...	HANMI ...	SAMSUNG ...	AUROB ...	ADVANTEST
Etching	5	98	85	14	2					
Polishing (CMP)	84		8	5	61	14		6		
Measurement ...	70	16	43	7		4	1		5	2
Packaging	4			65			24			
CVD	12	52	4		1					
Heat Treatment	25	1	16	8		2				
Exposure Treck	19					15				2
Washing		7		17	10					

1st Family Applicant



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- Summary 7 >
- Country 7 >
- Company 4 >
- Technology 3 >
- Custom Analysis 4 >

Custom Analysis

1st axis: IPC(Main) X
 Section Class Sub-Class Group

2nd axis: 1st Current Assignee X

3rd axis: Application Date - Yearly X

Chart type:

- Column Basic
- Stacked Column
- Clustered Column
- Bar Basic
- Stacked Bar
- Clustered Bar
- Line
- Area
- Radar
- Pie
- Donut
- Bubble Matrix
- Heat map
- Treemap
- Map
- Word cloud
- Stacked Bar + 100% Stacked Bar**

Selected List 0 Colors [Color palette] Selected charts 0 [Make a report](#)

[Custom] IPC(Main)&Country&1st Current Assignee

IPC Class	JP	KR	US	CN
H01L	36	61	171	132
B24B	15	15	30	15
H04N	40			
G01N	7	9	17	
H01J	6	5		
G03F	9	8		
C23C	8			
G03G	21			
G01R	18			
G01B	12			

[Custom] Application Date - Yearly&IPC(Main)

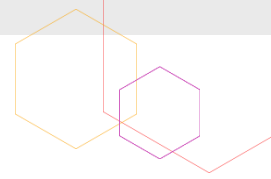
Year	H	G	B	C	A
2010	40	10	5	1	1
2011	45	15	10	5	2
2012	50	20	15	8	3
2013	55	25	15	8	3
2014	60	20	10	5	2
2015	45	15	10	5	2
2016	30	10	10	5	2
2017	35	10	10	5	2
2018	40	15	10	5	2
2019	45	10	10	5	2
2020	40	10	10	5	2
2021	30	10	10	5	2
2022	15	10	10	5	2

[Custom] IPC(Main)&Application Date - Yearly&Existence of Forward Ref(F1)

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Semiconductor

Charts List Style

TIP You can change the order of the pages.

- Title page
- Application country
Status
- 1st Family Applicant
Application date
- Innovation Word Cloud
Key Technologies
- Market Share by country and ...
Technology distribution by co...
- Domestic and foreign patent t...
Major applicants by country
- Application Trend of Majo...
IP Competitive power of ...
- Technology focus by Applicants
Technology Centrality Trend ...
- Technical trend change by ke...
Add a chart

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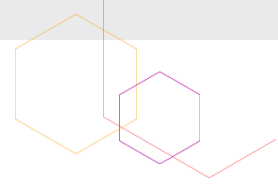
HI HIGH-TECH
N KOGAKU KK
S TECHNOLOGY, INC.

2023.07.26 pm 05:20

Major applicant.
applicants (applicant's n
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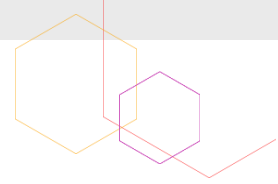
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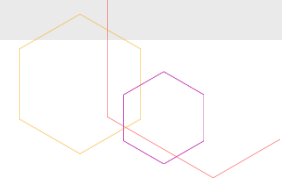
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General IP Working Process



❖ Patent search & analysis working process.





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Newsletters

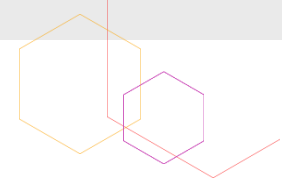
KIPO Establishes New Examination Bureau for Semiconductor Technologies

2023.07.20



The Korean Intellectual Property Office (KIPO) has continued to make efforts to improve its examination system for semiconductor patent applications and bolster the competitiveness of Korea's semiconductor industry by establishing a new examination bureau dedicated to semiconductor technologies and recruiting additional examiners with substantial industry experience in the semiconductor field.

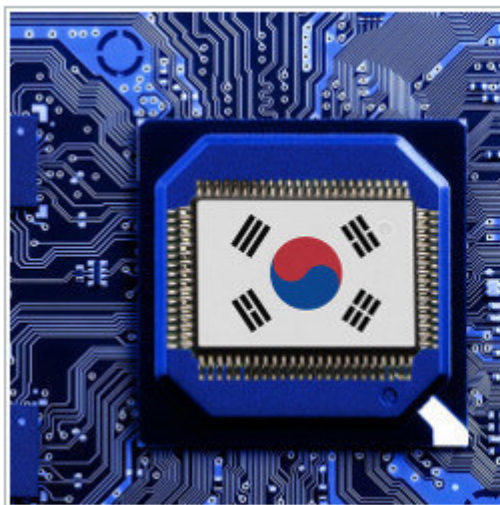
- From KIM&CHANG Newsletter



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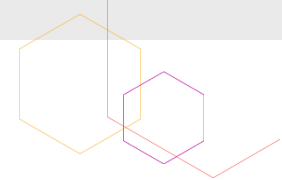
EAST ASIA AND OCEANIA REGION SPECIAL SECTION: BIG TRENDS

South Korea's Nationwide Effort for AI Semiconductor Industry



As global competition in the semiconductor industry has intensified with trade conflicts and semiconductor shortages, major countries worldwide have started to work on their government policy and investment plan to win technological hegemony. South Korea's semiconductor industry, which makes up almost 20% of the nation's gross domestic product (GDP), is heavily concentrated on the memory semiconductor sector.⁵ It dominates the global memory semiconductor market with a 56.9% share but has little influence on the other sectors of the industry, including logic, analog, and optical discrete, where it has less than a 3% market share. To grow the nation's biggest industry further, South Korea has put a priority on non-memory sectors. The emerging AI chip market is an especially great

- From COMMUNICATION OF THE ACM



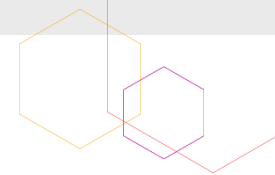
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South Korean Government to Plan on National Semiconductor Mega Project

South Korea is looking to start national semiconductor R&D project that are going to need \$2.2 billion (2.5 trillion KRW) of investments very soon in order to grab an upper hand in next-generation semiconductor industries that will lead Industry 4.0 and to maintain its position as the powerful nation of semiconductors.

Ministry of Science and ICT (MSIT) and Ministry of Trade, Industry and Energy (MOTIE) are currently planning national semiconductor R&D project, which have duration of planning of 10 years, that cover every department. Semiconductor experts from government research institutes such as Electronics and

- From Korea IT News



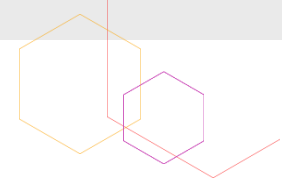
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Korea's new push in semiconductors

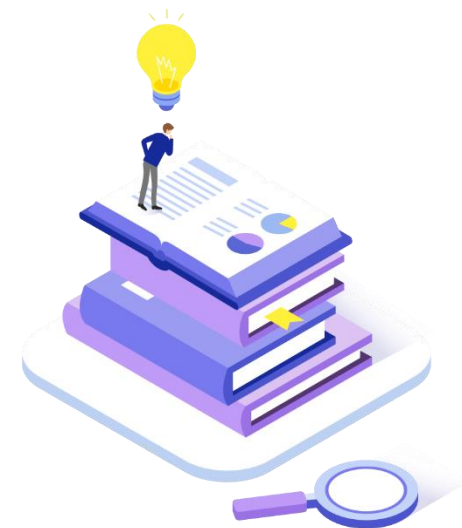


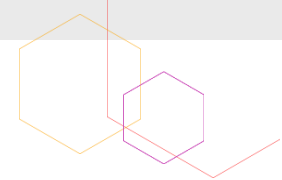
Samsung Electronics, SK Hynix Create 200 Million Won Fund for Semiconductor Industry. (Image: Yonhap)

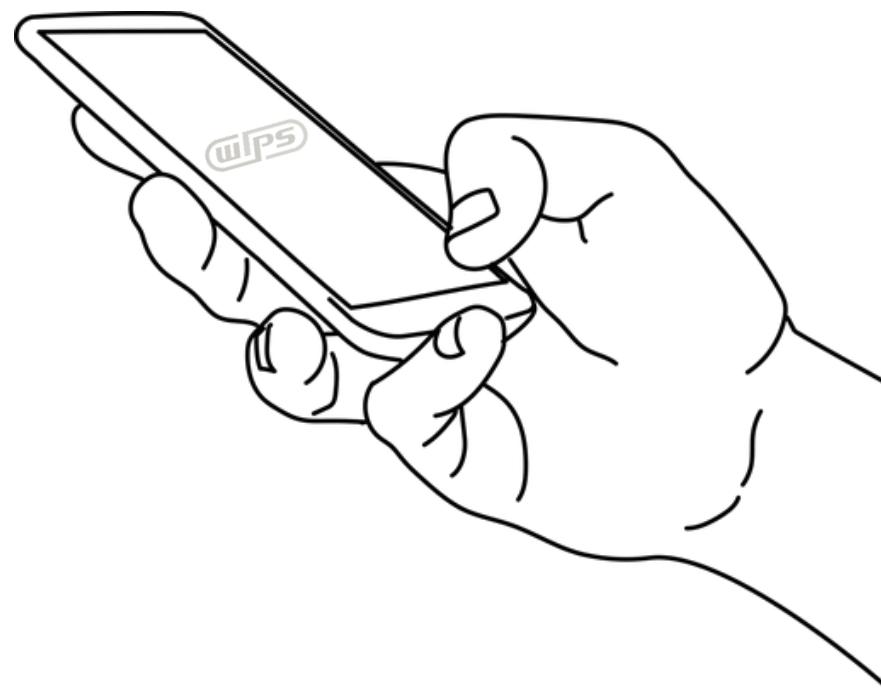
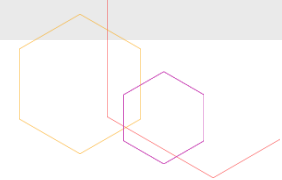
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