

AI TOOLS FOR IP OFFICES

ANGEL ALEDO LOPEZ | CTO/COO | APRIL 25 | VERSION: 1



Enable efficient granting of high-quality patents by reducing examiners' administrative and cognitive load through AI assistance in a streamlined end-to-end workflow



Better integration of the search and examination phases into a single workflow



Collaboration within the division and with the applicant



Maintaining high standards of service quality through AI assistance



Pre-processing applicant submissions to generate application's status overview

SUPPORTING EXAMINERS AND FORMALITIES OFFICERS WITH AI





A HUMAN-CENTRIC APPROACH

AI supports and complements human decision-making – but does not replace it.

- The combination of human + AI provides best results in quality and efficiency
- Final decisions at the Office will be taken by human intervention
- Accountability and responsibility for such decisions remains with the Office in relationship to third parties, in line with our legal framework



OVERWHELMING INTEREST - STATS

- Total on the list = 537 colleagues (including some late arrivals)
- First and rough assessment of input re AI experience and motivation
 - AI expert = 133
 - AI advanced user = 91
 - 313 neither AI expert nor AI advanced user
- This assessment might not be so accurate: **Self-Reflection on Skills and Roles**, also based on interest and availability
- OPPO and Exam Oral proceedings pilot: 185 (34 EXA, 151 OPPO) colleagues – 41 applied for AI Task Force

Artificial Intelligence Essentials

Computer Vision

- Patent figures
- Facsimiles parsing e.g., tables
- Understanding figure content

Natural Language Processing

- Managing patent language
- Patent syntax in general
- e.g., Claim syntax specifically

Machine Translation

- Specific to our business needs
- Build on patent content
- Proven to improve Pre-Search

(19)  Deutsches Patent- und Markenamt 

(10) DE 10 2017 212 839 A1 2019.01.31

(12) **Offenlegungsschrift**

(21) Aktenzeichen: 10 2017 212 839.9 (51) Int Cl.: **G06N 3/00** (2006.01)
 (22) Anmeldetag: 26.07.2017 G06F 15/00 (2006.01)
 (43) Offenlegungstag: 31.01.2019

(71) Anmelder: Robert Bosch GmbH, 70469 Stuttgart, DE (72) Erfinder: Kleemann, Ralf, 71726 Benningen, DE

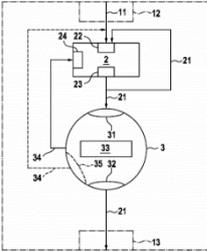
Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen.

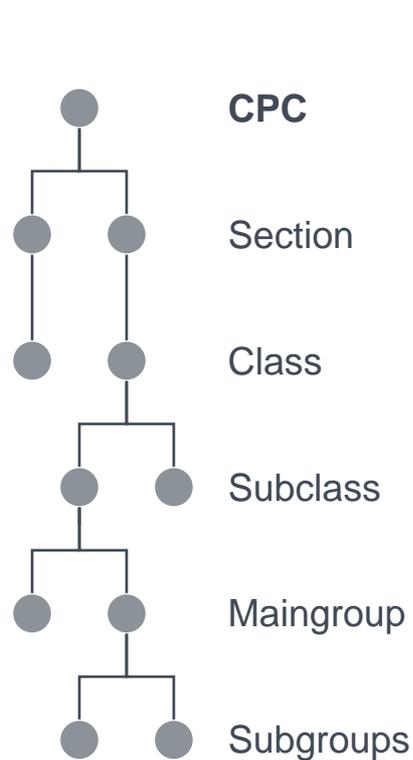
(54) Bezeichnung: **Kontrollmodul für Künstliche Intelligenz**

(57) Zusammenfassung: Kontrollmodul (3) für ein System (1), das eine oder mehrere Eingangsgrößen (11) mit einem Künstliche-Intelligenz-Modul, KI-Modul (2), in eine oder mehrere Ausgangsgrößen (21) übersetzt, wobei die Ausgangsgröße (21) von einem Ausgang (23) des KI-Moduls (2) sowohl zu einem Ausgang (13) des Systems (1) geführt ist als auch als Rückkopplung in einen Eingang (22) des KI-Moduls (2) zurückgeführt ist, wobei das Kontrollmodul (3) einen Eingang (31), der mit dem Ausgang (23) des KI-Moduls (2) verbindbar ist, und einen Ausgang (32), der mit dem Ausgang (13) des Systems (1) verbindbar ist, aufweist und dazu ausgebildet ist, einen an seinem Eingang (31) empfangenen Wert der Ausgangsgröße (21) des KI-Moduls (2) nur dann an seinen Ausgang (32) weiterzugeben, wenn dieser Wert mindestens einer in dem Kontrollmodul (3) hinterlegten Randbedingung (33) genügt.

System (1), das eine oder mehrere Eingangsgrößen (11) mit einem Künstliche-Intelligenz-Modul, KI-Modul (2), in eine oder mehrere Ausgangsgrößen (21) übersetzt, wobei die Ausgangsgröße (21) von einem Ausgang (23) des KI-Moduls (2) sowohl zu einem Ausgang (13) des Systems (1) geführt ist als auch als Rückkopplung in einen Eingang (22) des KI-Moduls (2) zurückgeführt ist, wobei ein Kontrollmodul (3) vorgesehen ist, wobei der Eingang (31) des Kontrollmoduls (3) mit einem Ausgang (23) des KI-Moduls (2) und der Ausgang (32) des Kontrollmoduls (3) mit einem Ausgang (13) des Systems (1) verbunden ist.

Zugehöriges ...





Data
available



~250 000 symbols in CPC

No aggregation

**220.0000 symbols in our
latest EP-AutoCla model**

Training on 6.9M (2002-2023)

Test on 0.83M

800k families from 2023:

**Unique symbols coverage:
(100%)**

**Total symbols coverage:
(100%)**

New release in April:
based on [ModernBert](#)

Canopee - v1.05.0 - Google Chrome

https://batavia.internal.epo.org/ansear/master/canopee/?mode=ansear/#/((browser.details,row,60),class-alloc,col,60)/info

Class Browser 4. CPC 5. KW 6. FI 7. FT 8. Info 9. IPC +3

Symbol - Title Find in the scheme Detail Actions

EP24157040A - AI suggestion

- A01B69/00 Steering of agricultural machines or implements; Guiding agricultural machines or implements on a desired track
 - A01B69/001 [Steering by means of optical assistance, e.g. television cameras (steering devices for road marking vehicles E01C23/163)]
- A01B76/00 Parts, details or accessories of agricultural machines or implements, not provided for in groups A01B51/00 - A01B75/00
- A01B79/00 Methods for working soil
 - A01B79/005 [Precision agriculture]
- A01C5/00 Making or covering furrows or holes for sowing, planting or manuring (ploughs for making ridges A01B13/02)
 - A01C5/06 Machines for making or covering drills or furrows for sowing or planting
 - A01C5/066 [Devices for covering drills or furrows]
 - A01C5/068 [Furrow packing devices, e.g. press wheels]
- A01C7/00 Sowing

Click on the icons in order to see here more detail

Class Alloc - EP24157040A Additional info On Add note

AI suggestion	CPC other offices	Confirmed	Circulation	Unreviewed
G06T7/0002 (58.0%)	G06T7/50 (US)	A01C7/203 (Weinmüller, C.)	Closed Herter J. G06T7/00	
A01B79/005 (39.8%)	G06V20/188 (US)	A A01C7/205 (Weinmüller, C.)	G06T7/20 Image Analysis (Clipon dossier)	
A G06T2207/30188 (36.2%)				
A G06T2207/30168 (34.9%)				

Add symbol Add admin circulation Finish

Class Browser Class History Class Alloc Cromo Detail window Multiple selection Contacts User Preferences OQC & QA Search Reset layout

AI suggestion

G06T7/0002 (58.0%)

A01B79/005 (39.8%)

A G06T2207/30188 (36.2%)

A G06T2207/30168 (34.9%)

A G06T2207/10016 (31.3%)

G06T7/0004 (29.9%)

G06Q50/02 (26.8%)

G06V10/993 (24.1%)

A01C7/205 (21.0%)

A01B69/001 (20.4%)

G06V20/56 (19.9%)

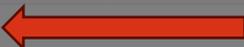
Allocate symbol as Invention or Additional information

- a) Auto-Cla AI explained
- b) Section explained.



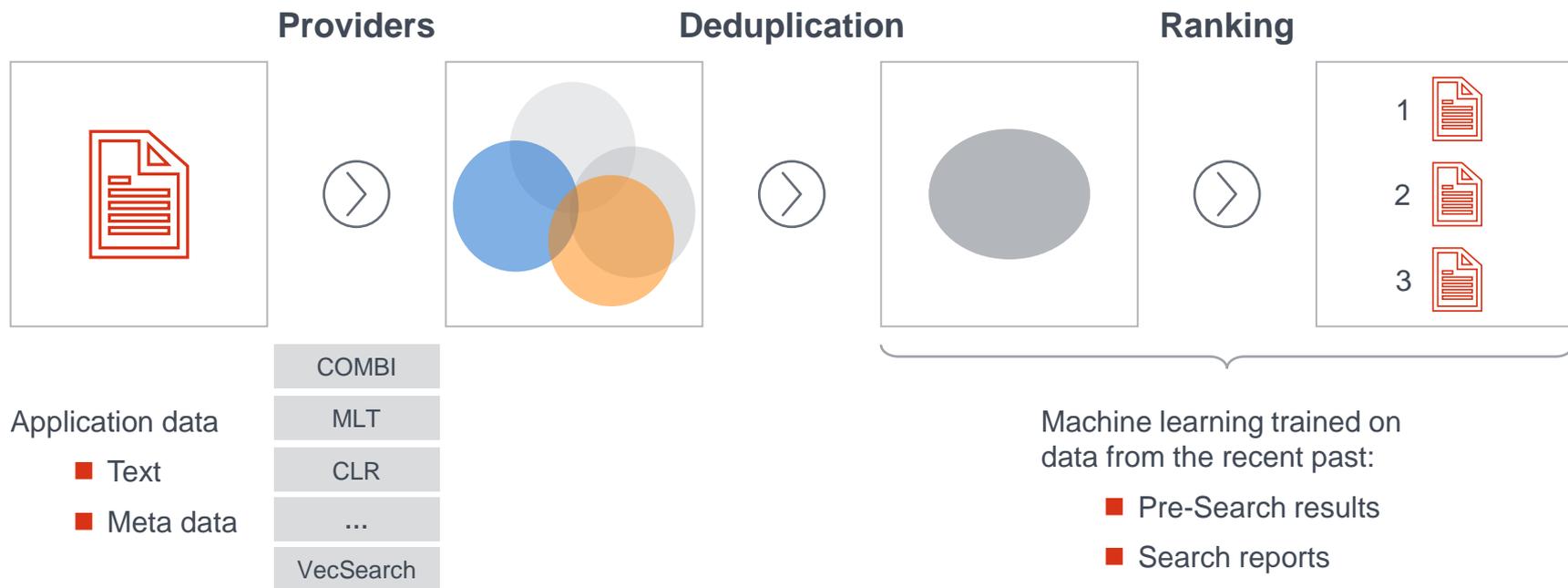
✓	A61M60/00	Blood pumps; Devices for mechanical circulatory actuation; Balloon pumps for circulatory assistance (heart stimulation A61H31/00; heart stimulators for electrotherapy A61N1/362)			
✓	•	A61M60/10	Location thereof with respect to the patient's body		
✓	••	A61M60/122	Implantable pumps or pumping devices, i.e. the blood being pumped inside the patient's body		
✓	•••	A61M60/126	implantable via, into, inside, in line, branching on, or around a blood vessel		
	••••	A61M60/13	by means of a catheter allowing explantation, e.g. catheter pumps temporarily introduced via the vascular system	0.07	S A
	••••	A61M60/148	in line with a blood vessel using resection or like techniques, e.g. permanent endovascular heart assist devices	0.07	S A
✓	•	A61M60/80	Constructional details other than related to driving		
✓	••	A61M60/802	of non-positive displacement blood pumps		
			usings	0.14	S A
			or blades, e.g. static flow guides	0.32	S A
			s		
			or blades		
			ally adapted for deformable impellers, e.g. expandable i	0.16	S A

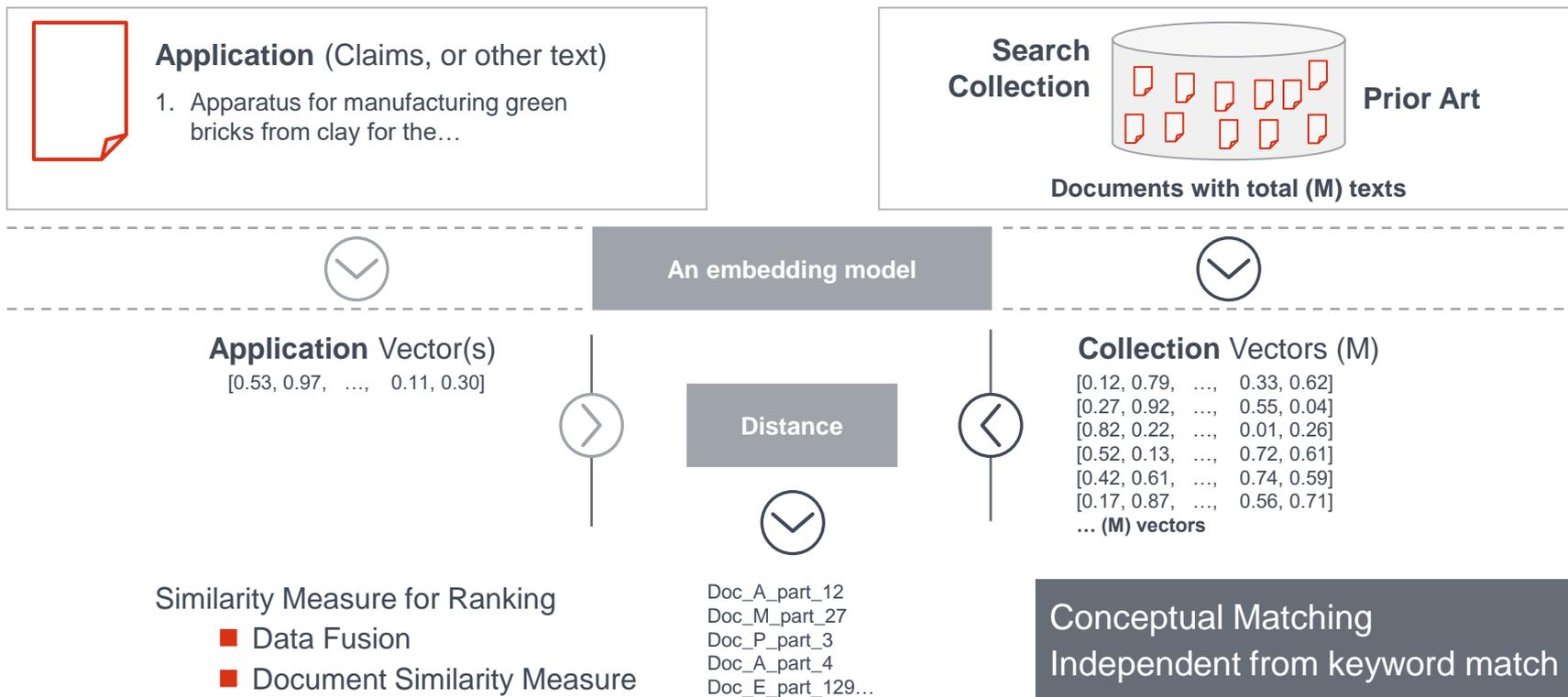
- a) The application describes the force acting on the blood contacting member being mechanical, transmitted by a shaft or cable, and generated by an electromotor, as seen in paragraphs 1, 7, 12, and the description of FIG. 1.



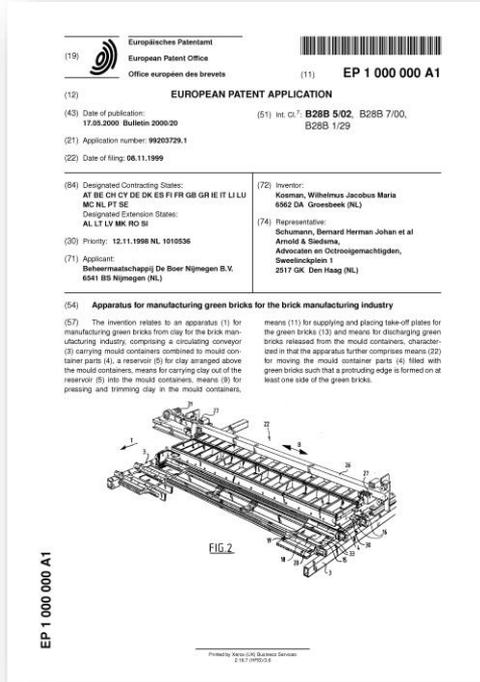
- b) The selection does not mention the force acting on the blood contacting member being electromagnetic. The force is described as mechanical, transmitted by a shaft or cable, and generated by an electromotor.

COLLECTION OF AUTOMATED SEARCH STRATEGIES (I.E., PROVIDERS)





Automated Generated ANSERA Markers



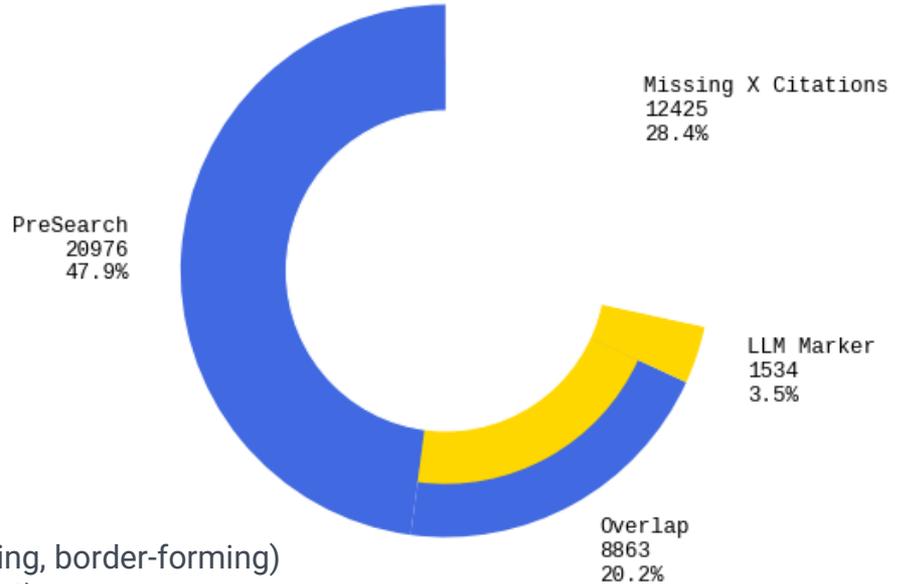
Markers generated



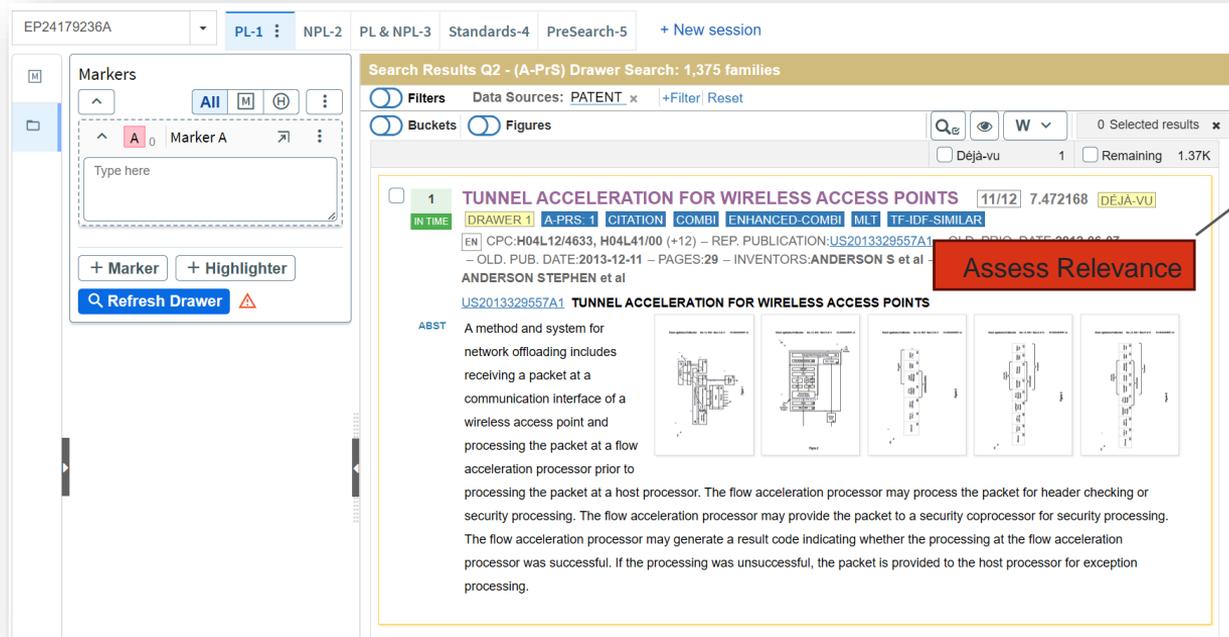
(edge?, border?, edge-forming, border-forming)
3D (means, system?, device?)

brick+ 3D (manufactur+, product+)

Recall (Citations)



IS MY PRESEARCH RESULT RELEVANT?



EP24179236A PL-1 NPL-2 PL & NPL-3 Standards-4 PreSearch-5 + New session

Search Results Q2 - (A-PrS) Drawer Search: 1,375 families

Filters Data Sources: PATENT x +Filter/Reset

Buckets Figures

0 Selected results x

Déjà-vu 1 Remaining 1.37K

1 **TUNNEL ACCELERATION FOR WIRELESS ACCESS POINTS** 11/12 7.472168 **DÉJÀ-VU**

IN TIME **DRAWER 1** **A-PRS: 1** **CITATION** **COMBI** **ENHANCED-COMBI** **MLT** **TF-IDF-SIMILAR**

EN CPC:H04L12/4633, H04L41/00 (+12) – REP. PUBLICATION:US2013329557A1 OLD PRIOR DATE:2012-05-07
– OLD. PUB. DATE:2013-12-11 – PAGES:29 – INVENTORS:ANDERSON S et al
ANDERSON STEPHEN et al

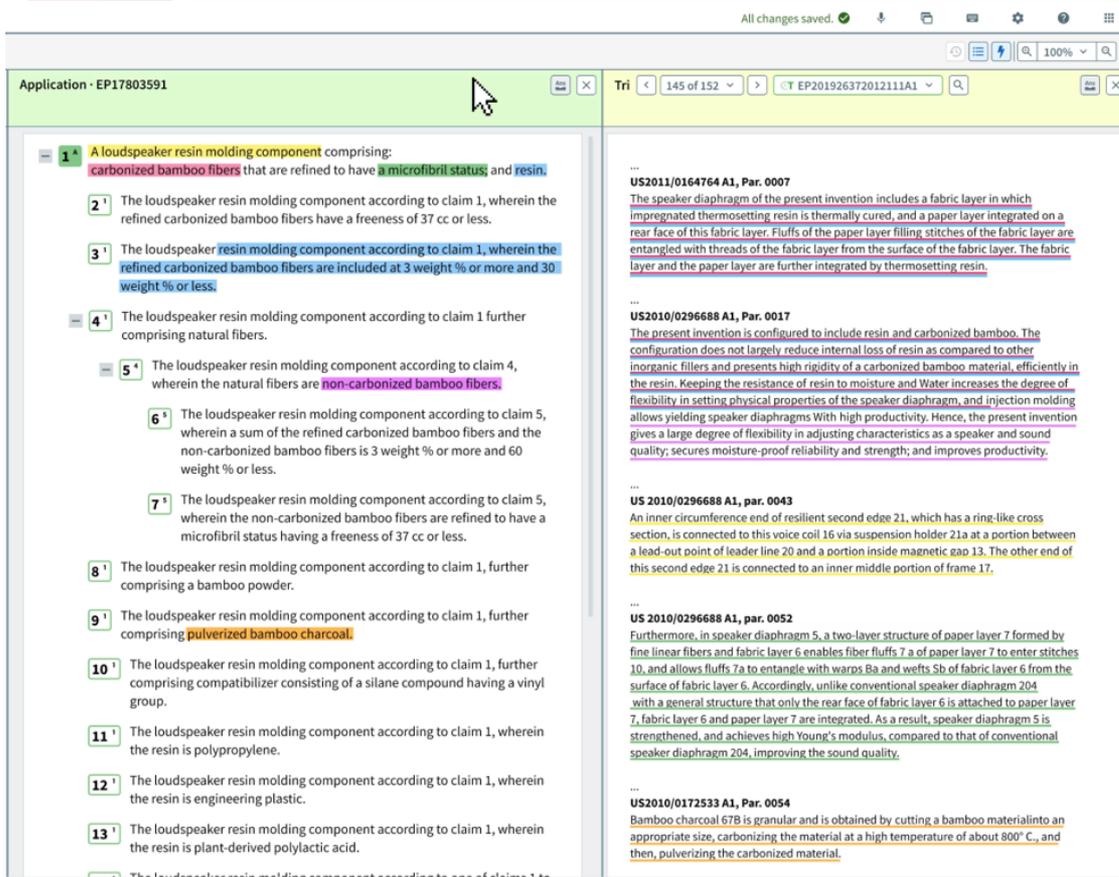
US2013329557A1 TUNNEL ACCELERATION FOR WIRELESS ACCESS POINTS

ABST A method and system for network offloading includes receiving a packet at a communication interface of a wireless access point and processing the packet at a flow acceleration processor prior to processing the packet at a host processor. The flow acceleration processor may process the packet for header checking or security processing. The flow acceleration processor may provide the packet to a security coprocessor for security processing. The flow acceleration processor may generate a result code indicating whether the processing at the flow acceleration processor was successful. If the processing was unsuccessful, the packet is provided to the host processor for exception processing.

Assess Relevance

-- Not directly relevant --

The application uses flow descriptors and context to determine how to process packets, including DTLS-specific context such as epoch and sequence numbers. - **Prior Art**: The prior art uses flow descriptors and context for general packet processing but does not specifically address DTLS-specific context or flow descriptors. ### Conclusion: While the prior art describes a method and system for offloading packet processing tasks to a dedicated processor, it does not specifically address the selective offloading of DTLS packets or the detailed criteria and steps for DTLS processing described in the application. The prior art is more general and focuses on offloading various types of packet processing tasks, whereas the application is specifically concerned with DTLS processing and selective offloading of DTLS packets. Therefore, the prior art is not directly relevant to the specific claims and features of the application related to DTLS selective software offload.



The screenshot shows a software interface for drafting patent communications. The top bar indicates 'All changes saved.' and includes navigation icons. The main area is split into two panes. The left pane, titled 'Application - EP17803591', displays a list of claims from 1 to 13. Claim 1 is highlighted in green. The right pane shows the full text of claim 1, which is underlined in yellow. The claim text is: '1. A loudspeaker resin molding component comprising: carbonized bamboo fibers that are refined to have a microfibril status; and resin. The loudspeaker resin molding component according to claim 1, wherein the refined carbonized bamboo fibers have a freeness of 37 cc or less. The loudspeaker resin molding component according to claim 1, wherein the refined carbonized bamboo fibers are included at 3 weight % or more and 30 weight % or less. The loudspeaker resin molding component according to claim 1 further comprising natural fibers. The loudspeaker resin molding component according to claim 4, wherein the natural fibers are non-carbonized bamboo fibers. The loudspeaker resin molding component according to claim 5, wherein a sum of the refined carbonized bamboo fibers and the non-carbonized bamboo fibers is 3 weight % or more and 60 weight % or less. The loudspeaker resin molding component according to claim 5, wherein the non-carbonized bamboo fibers are refined to have a microfibril status having a freeness of 37 cc or less. The loudspeaker resin molding component according to claim 1, further comprising a bamboo powder. The loudspeaker resin molding component according to claim 1, further comprising pulverized bamboo charcoal. The loudspeaker resin molding component according to claim 1, further comprising compatibilizer consisting of a silane compound having a vinyl group. The loudspeaker resin molding component according to claim 1, wherein the resin is polypropylene. The loudspeaker resin molding component according to claim 1, wherein the resin is engineering plastic. The loudspeaker resin molding component according to claim 1, wherein the resin is plant-derived polylactic acid.'

Drafter assistant helps you parse the application and prior art text for relevant passages.

While writing your communication, you are shown the application and prior art texts and relevant sections thereof, making it easier to make arguments.

+
↺
↻
✕

Hello,

What can I help you with?

+ **Check support of description**
in the latest filed claims

+ **Check clarity**
in the latest filed description

+ **Summary of invention**
Novelty & inventive step

+ **Find similar patents**
Novelty & inventive step

↵

EP 1234 567 89 EN | TOC/CN/IA
EP/UP | PCT/PEA | GCR | Family/CCP
Enter number →

Table of contents

Date	Code	Title	Comments
26.06.2020	2021A	Application deemed to be withdrawn ...	1
26.06.2020	STATUS	Application deemed withdrawn; date ...	1
22.01.2020	2001	Communication from the Examining D...	1
22.01.2020	2906	Annex to the communication	US14497451 1
22.01.2020	STATUS	Send COMM_INBA, TELT, INTT, INTN	KR10-2014-00... 1
21.01.2020	STATUS	Central File Store MU 2 IN	KR10-2015-00... 1
23.12.2019	STATUS	Communication	1
26.08.2019	STATUS	Date of payment of renewal fee, RFEEL...	1
26.08.2019	STATUS	Central File Store MU 2 OUT	1
22.08.2019	STATUS	Paperfile update for EXRES3 carried o...	1
22.08.2019	CLMS-HISA	Amended claims with annotations	1

▶ Cited Documents
▶ User area Doc Books Folders
▶ Shared area Doc Books

[Logo] **Acknowledgement of receipt**

We hereby acknowledge receipt of the following subsequently filed documents:

Submission number	8315534
Application number	EP19151010
Date of receipt	29 February 2020
Receiving Office	European Patent Office, The Hague
Your reference	A326-B-41858 EP
Applicant	All applicants as on file
Documents submitted	<div style="display: flex; gap: 5px;"> <div style="border: 1px solid #ccc; padding: 2px; font-size: 0.7em;">package-data.xml</div> <div style="border: 1px solid #ccc; padding: 2px; font-size: 0.7em;">ep-410-request.xml</div> </div> <div style="font-size: 0.7em; margin-top: 2px;"> epj1038.pdf (1 p.) ORAL-1.pdf(EPO Letter - Technical information - 05.02.2020.pdf (2 p.)) </div>
Submitted by	CN+Eric Denjean 26780
Method of submission	Online
Date and time receipt generated	29 February 2020 16:01 (CET)
Message Digest	0A DA 26 D3 AE E5 E3 9C 98 2B 42 5A 4A EB F7 65 88 34 80 34

Correction by the EPO of errors in debit instructions filed by eOLF
 Errors in debit instructions filed by eOLF that are caused by the editing of Form 1038E entries or the continued use of outdated software (all formats) may be corrected automatically by the EPO, leaving the payment date unchanged (see decision T 1528/02, OJ EPO 1984, 301 and point 6.3 # ADA, Supplement to OJ EPO 10/2007).

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Formalities

EAPP - Reference to an Earlier Application Information

EAPP - Reference to an Earlier Application Information

Request received on (DREC11_MACH): 12.02.2023

Procedural language (PPOU11): DE - German

Title of invention

Title of invention (TITL01): [Placeholder text]

Applicant / Representative

Applicant (GAPP11_MACH):

Agent / Applicant reference (AREF01_MACH):

For attention of (ATTN11_MACH):

Representative address (REPR11):

Priority Claim

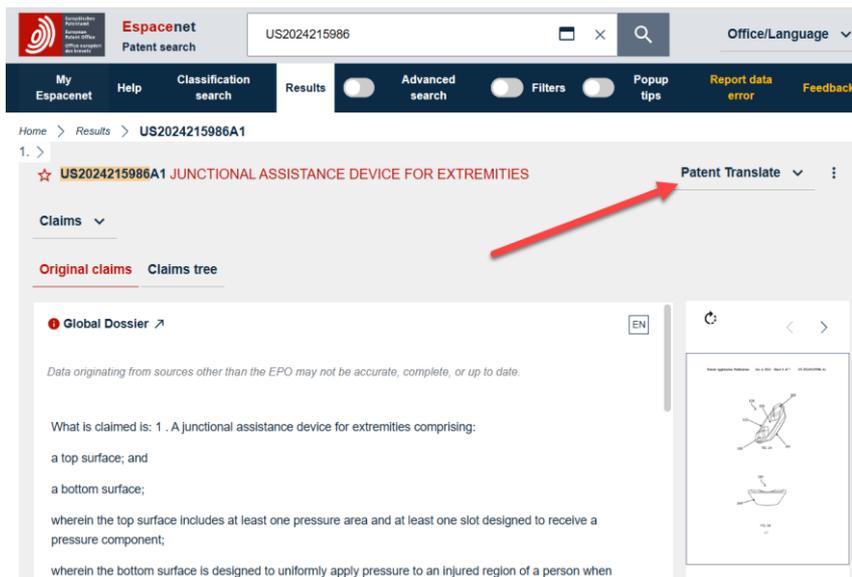
Earliest priority date (PRIO00):

No. of sheets

No. of sheets (SHEE11_MACH):

LOWERING THE BARRIER TO ACCESS INFORMATION WITH AI





Home > Results > US2024215986A1

1. >

☆ **US2024215986A1** JUNCTIONAL ASSISTANCE DEVICE FOR EXTREMITIES Patent Translate

Claims

Original claims Claims tree

Global Dossier

Data originating from sources other than the EPO may not be accurate, complete, or up to date.

What is claimed is: 1. A junctional assistance device for extremities comprising:

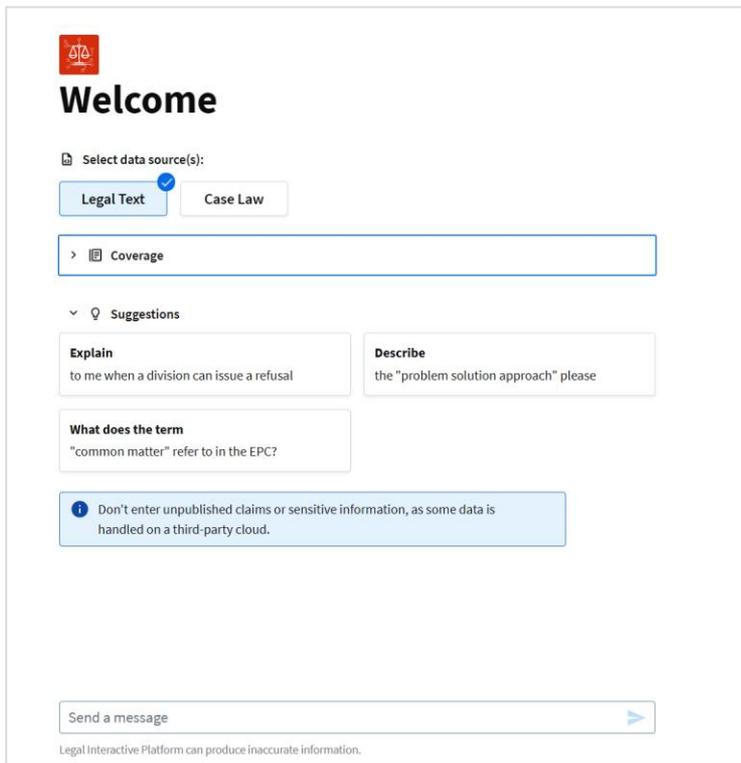
- a top surface; and
- a bottom surface;

wherein the top surface includes at least one pressure area and at least one slot designed to receive a pressure component;

wherein the bottom surface is designed to uniformly apply pressure to an injured region of a person when

We are currently deploying epo-translate for Espacenet making us more independent from commercial tools

- EPC Languages: German, French Italian, Greek, Dutch, Spanish, Portuguese, Turkish
- Non-EPC: Chinese, Japanese, Korean and Russian



The screenshot shows the 'Welcome' page of the Legal Interactive Platform. At the top left is the EPO logo. Below it, the word 'Welcome' is displayed in a large, bold font. Underneath, there is a section titled 'Select data source(s):' with two buttons: 'Legal Text' (which is selected and has a blue checkmark) and 'Case Law'. Below this is a search bar containing the text '> Coverage'. A 'Suggestions' section is visible, with a dropdown arrow and a magnifying glass icon. It contains two boxes: 'Explain' with the text 'to me when a division can issue a refusal' and 'Describe' with the text 'the "problem solution approach" please'. Below the suggestions is a box titled 'What does the term' with the text '"common matter" refer to in the EPC?'. A blue information box contains the text: 'Don't enter unpublished claims or sensitive information, as some data is handled on a third-party cloud.' At the bottom, there is a text input field with the placeholder 'Send a message' and a blue arrow button. A small disclaimer at the very bottom reads: 'Legal Interactive Platform can produce inaccurate information.'

The new Legal Interactive platform uses a Large Language Model to allow internal and external users to interact and search EPOs legal literature

- European Patent Convention
- Case Law
- Boards of Appeal Decisions
- Unitary Patent Guidelines

THANK YOU FOR YOUR ATTENTION
