



Accelerating Innovation & Commercialization for Malaysia Universities and Research Centres

Speakers

- Barry Edmonds – United Technology Sdn Bhd
- Nick Solomon – Lead Product Consultant, Clarivate
- Thomas Sun – Senior Consultant, IET

Agenda

- ◆ **Introduction – Barry Edmonds (United Tech)**
- ◆ **Malaysia Universities State of Innovation – Nick Solomon (Clarivate)**
- ◆ **Exploring Inspec on Derwent Innovation: From Research to Impact – Thomas Sun (IET)**
- ◆ **Q&A – Everyone**

Introduction

Barry Edmonds
United Technology



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Barry Edmonds
barry.edmonds@unitedtech.com.my

IP Innovation & Commercialisation

Challenges

Academic Institutions and Corporations involved in research around the world are often the ones pushing boundaries and driving disruptive innovation in their countries. But what often holds these “IP heavy” organisations from scaling up is:

- an inability to unlock IPs for financing
- IP assets are not recognized by accounting systems and therefore appear to have no value
- We don't see the IP's and we fail to measure them
- Lack of funding

Solutions

- Recognizing IPs as a Financial Asset
- IP and tech transfer office support and funding, turning research into market-ready products
- Industry Expertise to guide lending decisions
- Protecting IPs and turning it into value
- IP must be harnessed as a strategic tool and a driver of economic development, going beyond its foundations as a legal right

Key Metrics to track

- Research & Knowledge Creation
- Institutional & Global Recognition
- Technology Transfer & Commercialization
- Entrepreneurship & Ecosystem Development

Some Current Findings

- The five research universities—UM, UKM, UPM, USM, and UTM—are consistently among the top patent filers in Malaysia, playing a crucial role in the country's intellectual property landscape.
- Asia Climbs the Innovation Rankings- The Asia region has showed strong momentum in the GII 2025, with South Korea reaching a record-high fourth place. The country took first place in the “human capital and research” pillar, and scores highly in various R&D metrics.
- China also entered the GII top 10 for the first time, making it the only middle-income economy within the top 30. According to WIPO estimates, China was the world’s biggest R&D spender and leads globally in patent filings.
- KUALA LUMPUR (Oct 12): Malaysia’s Budget 2026, with a total expenditure of RM419.2 billion, marks a strategic shift from a focus on "big-ticket" construction mega-projects to nurturing "big ideas" in technology, energy transition, and rakyat well-being, according to Kenanga Research.
- One positive surprise, it noted, was the commitment to holistic push for the development and adoption of artificial intelligence or AI, including the cross-ministerial allocation of RM5.9 billion to strengthen research, development, commercialisation and innovation.

Malaysia Universities State of Innovation

Nick Solomon

Lead Product Consultant, Clarivate

Agenda

1. Malaysia's national state-of-innovation (WIPO Global Innovation Index)
2. How is innovation measured and tracked for universities
3. Malaysia universities innovation output
4. Optimism for the future and innovation focus areas

About the Global Innovation Index (GII)

- The **Global Innovation Index (GII) 2025**, now in its 18th edition, measures innovation performance across **around 140 economies** and unveils the **world's top 100 innovation clusters**.
- It is recognized by the **UN General Assembly** as an authoritative reference for **Science, Technology and Innovation (STI)** policies.
- It tracks global innovation trends through:
 - ✓ investment patterns
 - ✓ technological progress
 - ✓ adoption rates
 - ✓ socioeconomic impacts



GII country ranking

- **Malaysia** is ranked **#34** most innovative country globally
- In the “**Upper middle-income**” category, it is ranked **#2** globally (after China)

Income Group Rank	GII Rank	Economy	Income Group Rank	GII Rank	Economy
High-income economies (54 in total)			Upper middle-income economies (36 in total)		
1	1	Switzerland	1	10	China
2	2	Sweden	2	34	Malaysia
3	3	United States	3	43	Türkiye
4	4	Republic of Korea	4	45	Thailand
5	5	Singapore	5	52	Brazil
6	6	United Kingdom	6	53	Mauritius
7	7	Finland	7	54	Serbia
8	8	Netherlands (Kingdom of the)	8	55	Indonesia
9	9	Denmark	9	56	Georgia
10	11	Germany	10	58	Mexico

Innovation City Hub ranking

- Form the beating heart of **national innovation systems**. These hubs unite top universities, researchers, inventors, venture capitalists and R&D firms in driving forward breakthrough ideas
- **Kuala Lumpur** is ranked **#86** most innovative city hub globally (ranking improved over the years)
- Top filers are MIMOS and Universiti Malaya

Rank	Cluster name	Economy	Top applicant	Top organization
1	Shenzhen-Hong Kong-Guangzhou	CN / HK	Huawei	Sun Yat Sen University
2	Tokyo-Yokohama	JP	Mitsubishi Electric	University of Tokyo
3	San Jose-San Francisco	US	Google	Stanford University
4	Beijing	CN	BOE Technology	Tsinghua University
5	Seoul	KR	Samsung Electronics	Seoul National University
8	London	GB	Nicoventures Trading	University College London
12	Paris	FR	Safran Aircraft Engines	Sorbonne Université
16	Singapore	SG / MY	National University of Singapore	National University of Singapore
19	Tel Aviv-Jerusalem	IL	Tel Aviv University	Hebrew University Of Jerusalem
21	Bengaluru	IN	Samsung Electronics	IISC - Bangalore
22	Amsterdam-Rotterdam	NL	TNO	Utrecht University
27	Munich	DE	BMW	Technical University of Munich
32	Stockholm	SE	LM Ericsson	Karolinska Institutet
33	Toronto	CA	DH Technologies Development	University of Toronto
36	Sydney	AU	Cochlear	University of Sydney
40	Zürich	CH	ETH Zürich	ETH Zürich
41	Taipei-Hsinchu	TW*	MediaTek	National Taiwan University
42	Copenhagen	DK	Novozymes	University of Copenhagen
45	Barcelona	ES	Hewlett-Packard	University of Barcelona
48	Moscow	RU	Samsung Electronics	Lomonosov Moscow State University
49	São Paulo	BR	Braskem	Universidade de São Paulo
55	Brussels-Antwerp	BE	Agfa	KU Leuven
56	Milan	IT	Pirelli Tyre	University of Milan
58	Istanbul	TR	Arcelik	Istanbul Technical University
60	Helsinki	FI	Nokia	University of Helsinki
63	Tehran	IR	Abdolahad Mohammad	University of Tehran
71	Dublin	IE	Eaton Intelligent Power	University College Dublin
74	Vienna	AT	JT International	Medical University of Vienna
79	Mexico City	MX	Colgate-Palmolive	Universidad Nacional Autonoma de Mexico
83	Cairo	EG	Si-Ware Systems	Cairo University
85	Oslo	NO	Oslo University Hospital	University of Oslo
86	Kuala Lumpur	MY	MIMOS Berhad	Universiti Malaya
89	Warsaw	PL	Samsung Electronics	Warsaw University of Technology

Tracking Innovation for Universities (1 of 2)

1 Research & Knowledge Creation

- Invention disclosures submitted by faculty or students
- Licenses and options executed (count and total value)
- Collaborative research projects with industry or government partners

2 Technology Transfer & Commercialization

- Startups or spin-offs formed (by faculty, students, or staff)
- Revenue from IP licensing and royalties
- Active licenses (how many technologies are actually commercialized)
- Time to market (speed of translating research to commercial use)
- Industry-funded research income
- Venture capital attracted by university-affiliated startups

Tracking Innovation for Universities (2 of 2)

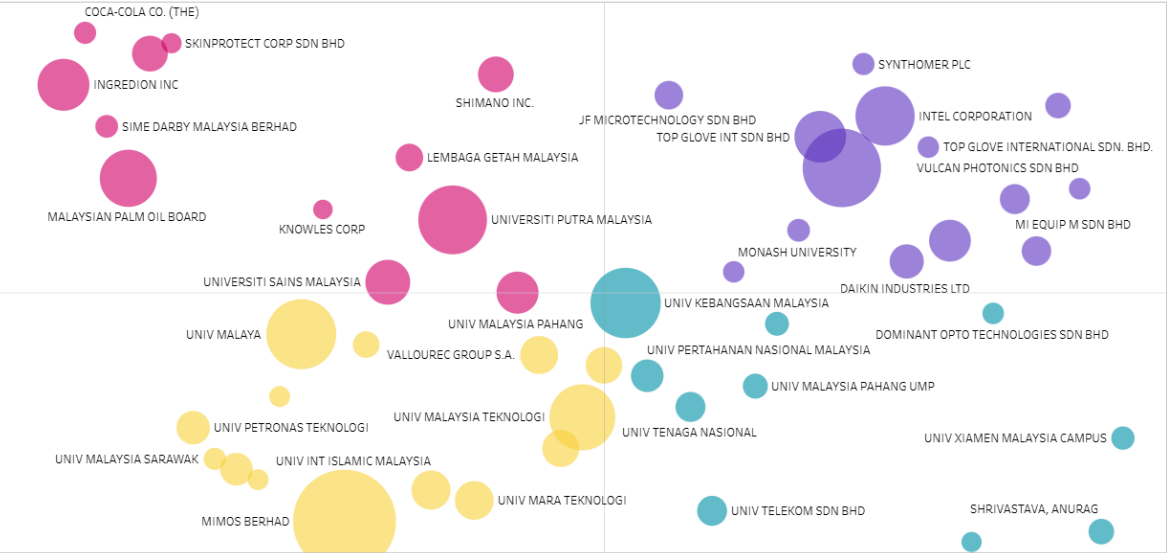
3 Entrepreneurship & Ecosystem Development

- Entrepreneurship programs participation (students/faculty trained)
- Incubator / accelerator success metrics (graduated startups, survival rates)
- Jobs created by university startups
- Alumni-founded companies and their market value
- Mentorship and investment networks (e.g., alumni angel networks)
- Hackathons / innovation challenges held and outcomes achieved

4 Institutional & Global Recognition

- Position in innovation-oriented rankings, such as:
 - Reuters / Clarivate Top 100 Most Innovative Universities
 - **Global ranking indicators** (e.g., THE “Industry Income” or QS “Innovation Impact” metrics)
 - WIPO Global Innovation Index (university-level inputs)
- International collaborations and joint patents/publications

Malaysia Originating Patent Analysis



- Patents published over the last 10 years.
- Innovation which has originated in Malaysia

Stage

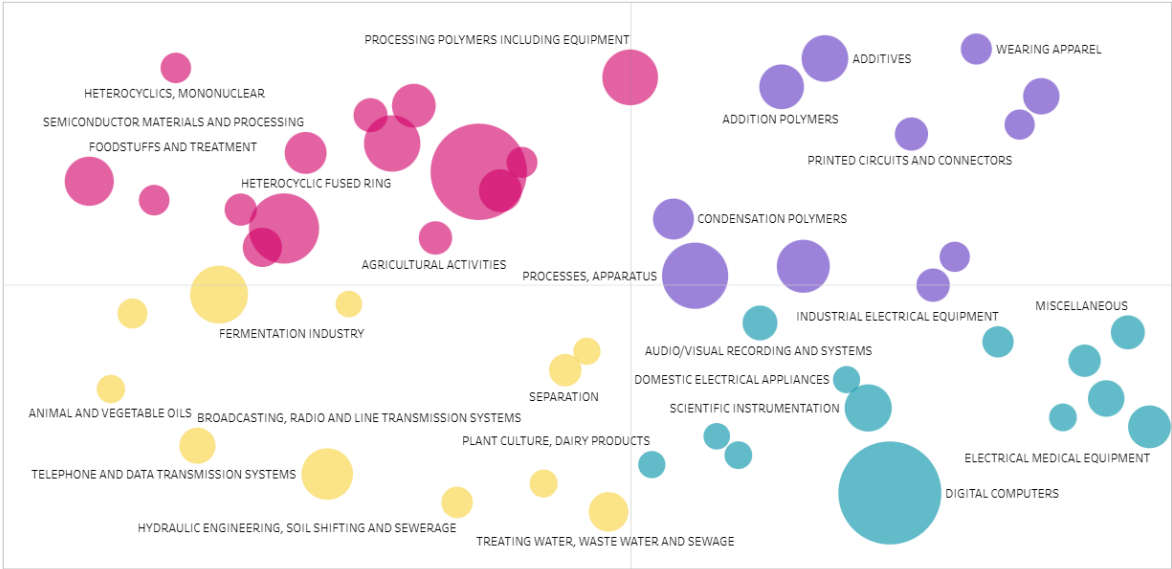
Emerging

New Entrant

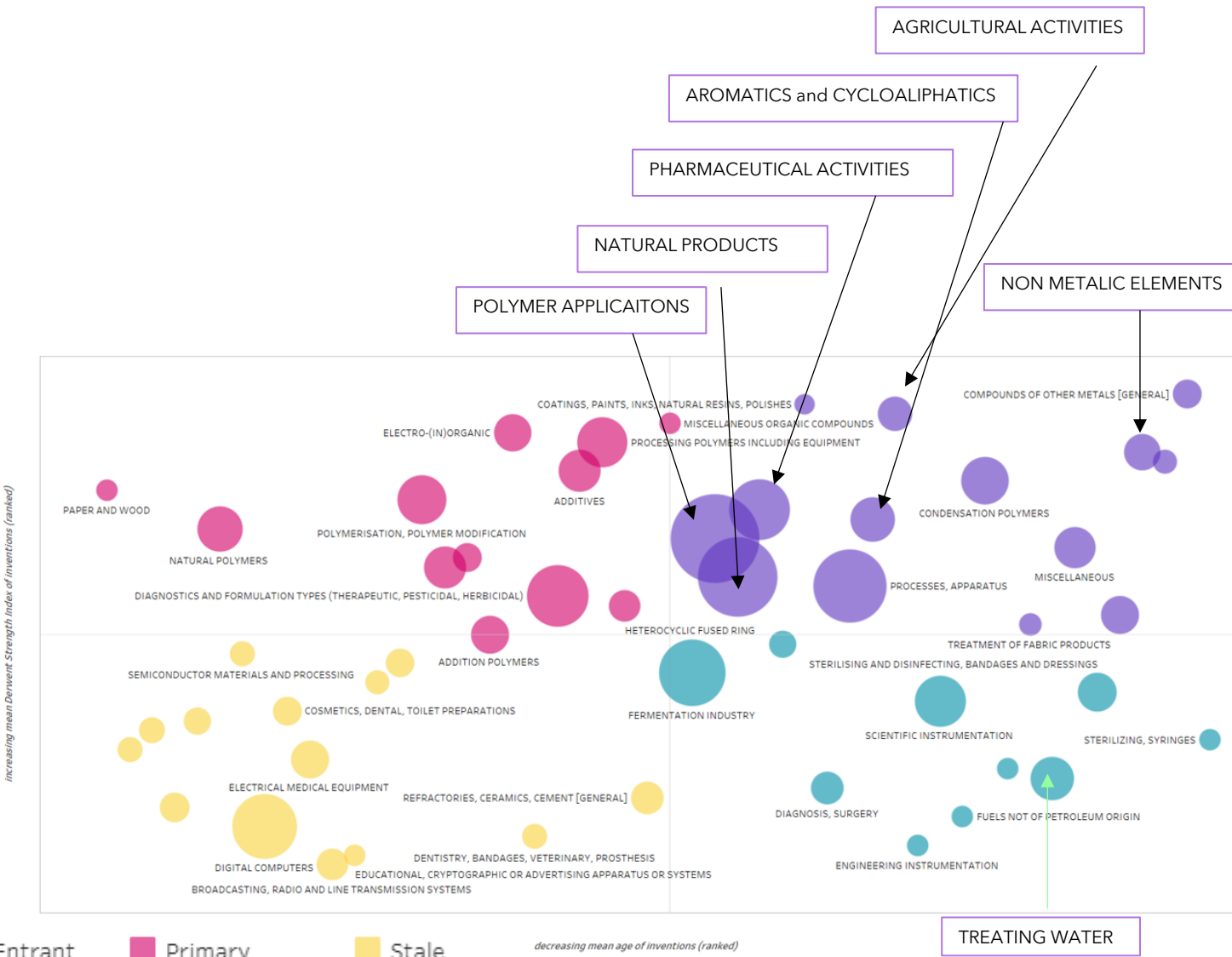
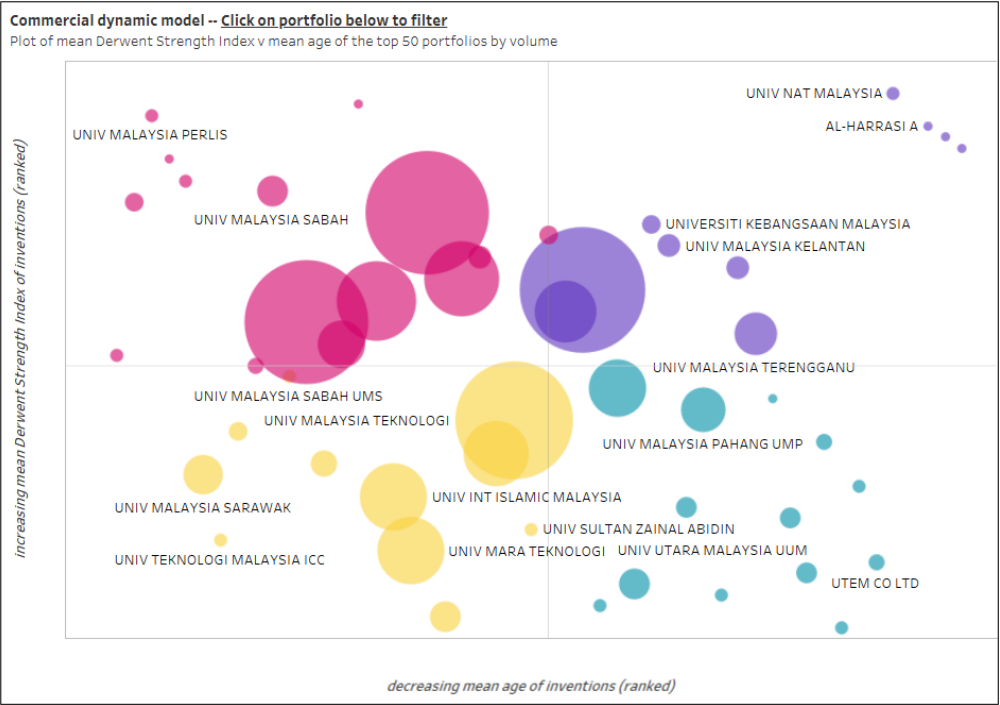
Primary

Stale

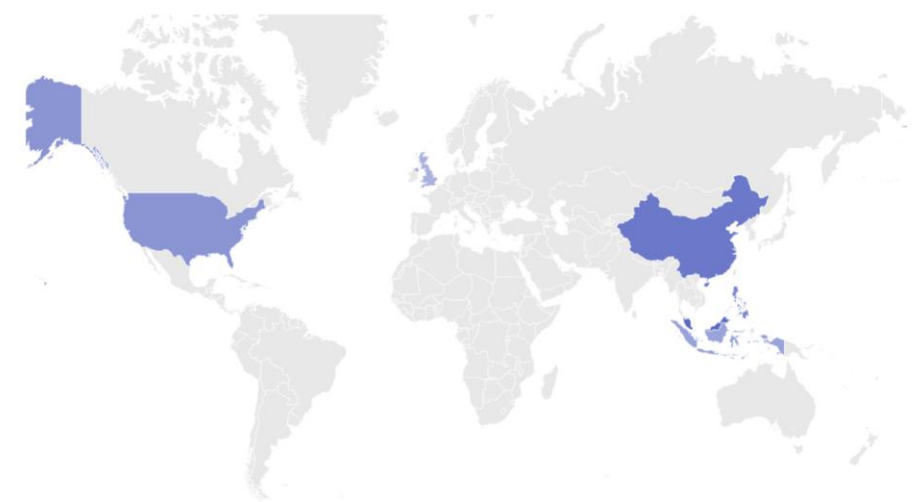
Technical dynamic model for the selected portfolio (top 50 themes)



Malaysia Universities Patent Analysis



Local and International Collaboration Analysis



Entity	Primary Location / Country
Vallourec Group S.A.	France
Malaysian Palm Oil Board	Malaysia
Biosain Technologies SDN BHD	Malaysia
Petroliam Nasional Berhad (Petronas)	Malaysia
Suzhou Unimap Software Co Ltd	China
Chinese Academy of Science	China
Hartalega Ind SDN	Malaysia
Moleac Pte Ltd	Singapore
National Institute of Biotechnology Malaysia	Malaysia
Silterra Malaysia SDN BHD	Malaysia
Aerospace Malaysia Innovation Center	Malaysia
Agro Biotechnology Institute	Malaysia
Binex Services and Solutions DSN BHD	Malaysia
DB Capital SDN BHD	Malaysia
DFRAN Res Technologies SDN BHD	Malaysia

2022-2025

72 new records in this time period.



- **Vallourec Group** - Simultaneous carbonization of palm oil and production of activated biochar for e.g. wastewater treatment
- **Malaysian Palm Oil** - Composition useful for disrupting pathogenic bacterial biofilm in surface e.g. medical device
- **Petronas** - Flow-field plate for polymer electrolyte membrane device, e.g. electrolyzer or fuel cell

Optimism for the Future

Organization	Country / region	Citations	No. of unique citing inventions	No. of unique cited papers
1. Harvard University	U.S.	8,315	3,291	3,720
2. Stanford University	U.S.	4,727	3,089	2,163
3. Massachusetts Institute of Technology (MIT)	U.S.	4,693	3,218	2,284
4. University of California, Berkeley	U.S.	3,176	2,413	1,519
5. Université Paris Cite	France	2,908	1,532	1,848
6. University of Cambridge	U.K.	2,760	1,641	915
7. University of Washington, Seattle	U.S.	2,641	1,687	1,076
8. University of California, San Diego	U.S.	2,559	1,812	1,240
9. University of Michigan	U.S.	2,526	1,897	1,338
10. University of Toronto	Canada	2,476	1,722	1,352
11. Johns Hopkins University	U.S.	2,452	1,501	1,238
12. University of California, Los Angeles	U.S.	2,293	1,602	1,222
13. University College London	U.K.	2,240	1,518	973
14. University of Oxford	U.K.	2,237	1,439	1,117
15. Cornell University	U.S.	2,111	1,432	1,025
16. University of Pennsylvania	U.S.	2,089	1,284	1,133
17. Université Paris Saclay	France	2,039	1,407	1,356
18. Columbia University	U.S.	1,949	1,257	903
19. University of California, San Francisco	U.S.	1,929	1,144	968
20. Imperial College London	U.K.	1,907	1,411	1,011

- No Malaysian University made the top 50 list
- Malaysia has a national agenda focused on becoming a high-tech, knowledge-based economy
- Strong STEM focus and a growing emphasis on **AI, semiconductors, and green tech**, which are globally competitive innovation sectors.
- An increasing International Collaboration footprint.
- Young, Tech-Savvy Talent Pool
- Cost Competitiveness

Exploring Inspec on Derwent Innovation: From Research to Impact

Thomas Sun
Senior Consultant, IET

Exploring Inspec on Derwent Innovation: From Research to Impact

1. Inspec Database Overview

- The extended collection in Physics and Engineering
- Enhanced trusted content with focus on EE areas

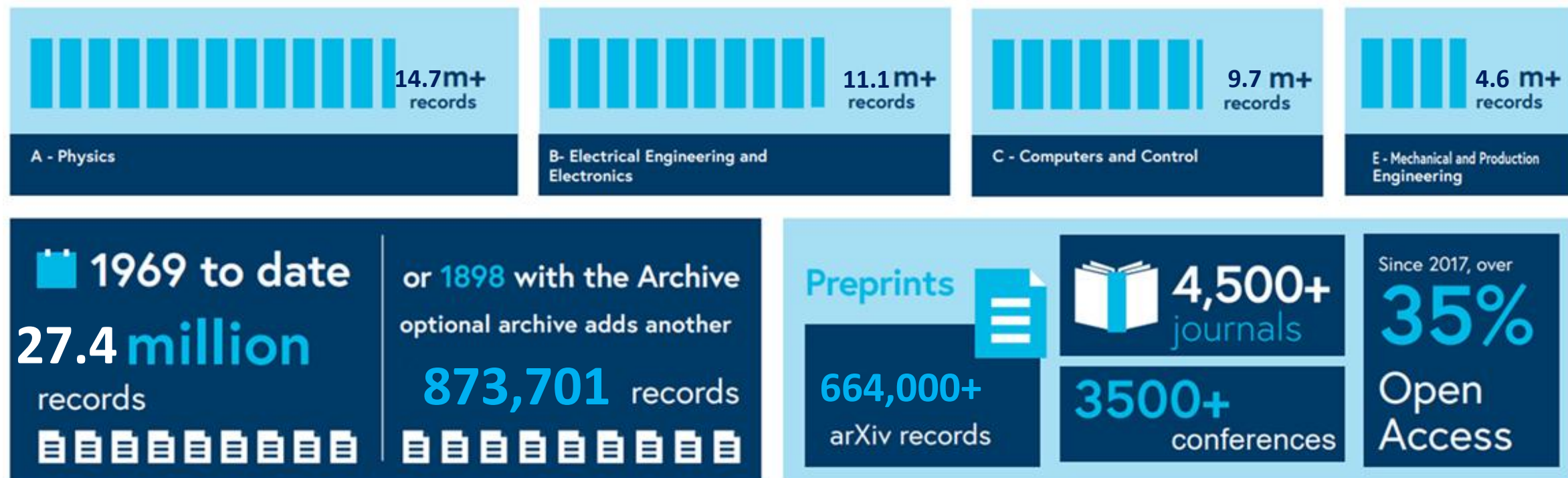
2. Advantages of Inspec for universities

- Precise Navigation with Expert Indexing (Inspec Thesaurus, Numerical & Chemical indexing, IPC, etc.)
- Benefits of having access to Inspec within Derwent Innovation

3. Semiconductor & AI examples

- Malaysia's Academic and Patent Output in Semiconductor & AI: From Research to Real-World Impact

Inspec Subject Scope & Content Coverage



- Inspec is the world's largest abstract analysis database in **Physics & Engineering**.
- Inspec's database review team is composed of subject matter experts who review the articles with sufficient care and rigour to ensure that **the content is of high quality and subject relevance**. ([Inspec Source Titles-July 2025](#)).
- Inspec's subject matter experts conduct rigorous **human-curated indexing** of each record included in Inspec.
- Inspec is the only **non-patent literature database** with **International Patent Classification (IPC codes) indexing**.
- Inspec is **available on the Derwent Innovation** for one-stop Prior Art Search (Patent search + Literature Search).

Trusted content

Inspec is an authoritative publisher-neutral resource for accessing scientific literature

- **All IEEE, ACM, IOP, AIP content indexed by Inspec**
- Discover the latest research from global publications, selected for quality and relevance
- Granular indexing by subject experts
- Regularly updated subject classifications and thesaurus terms reflect the latest research areas

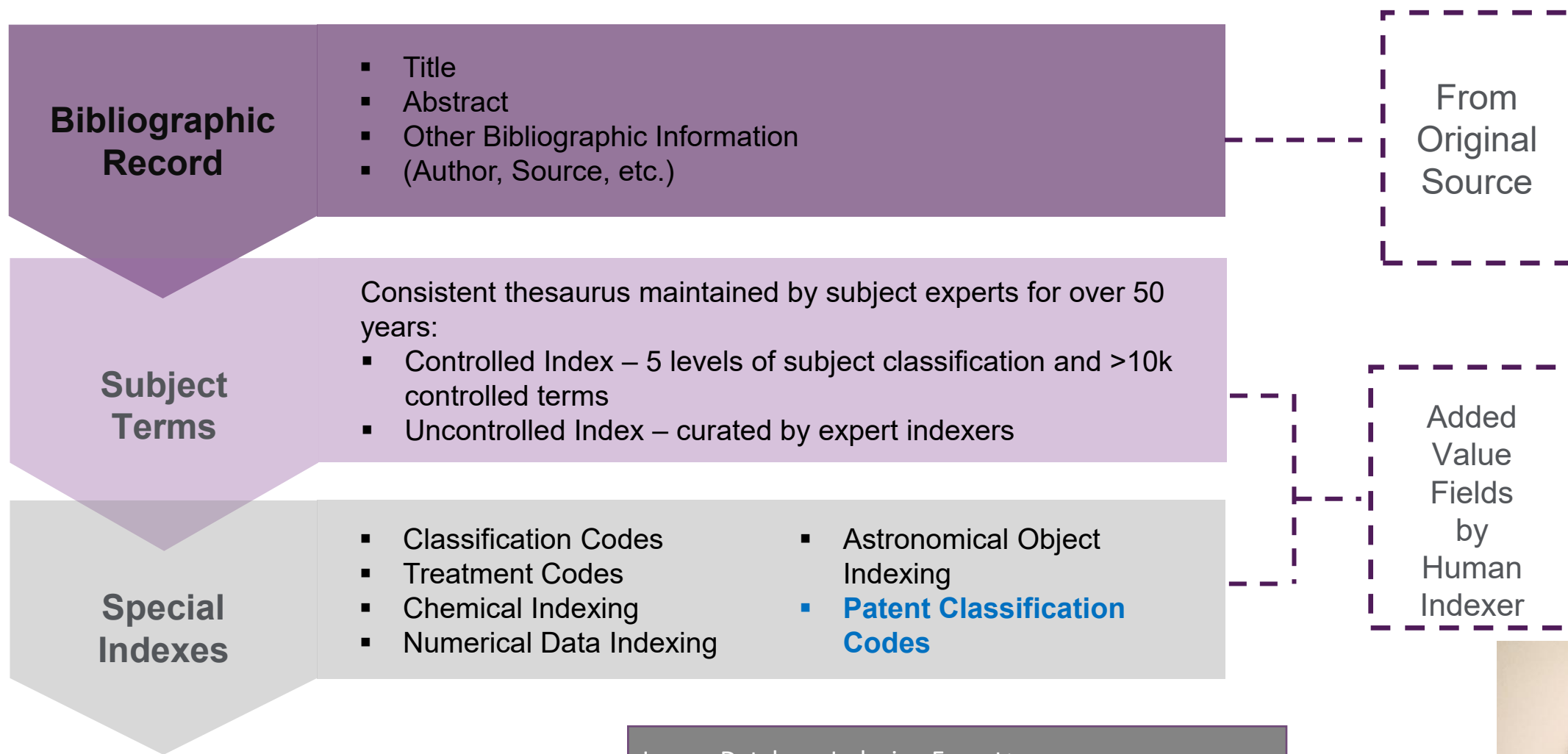
Document type	Count
Journal article	20 M+
Conference article	8.6 M+
Preprint/Dissertation, etc.	1.2 M+

500+
global publishers

4,500+
actively indexed journals
(12,000 previously-indexed)

8.6 million+
conference papers

Inspec-Precise Expert Indexing



Inspec Database Indexing Expert:
Dr. Christopher Marker

- UCL PhD in Physics
- Over 20 years experiences and expertise in indexing



Inspec Thesaurus with hierarchical structures

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80%

HOME LITERATURE SEARCH

LITERATURE SEARCH

FIELDDED EXPERT Change collection

Controlled Indexing

Author

Time span

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Inspec index/thesaurus searching

Search inspec index/thesaurus

Enter keywords humanoid Go

- ☐ intelligent robots
- ☒ robot kinematics
 - ☒ manipulator kinematics
 - ☒ humanoid robots
 - ☒ robot dynamics
 - ☒ marine robots

Selected index term humanoid robots

Cancel Save

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Inspec Numerical & Chemical indexing

Numerical Data

- ..Age (yr)
- ..Altitude (m)
- ..Apparent Power (VA)
- ..Bit Rate (Bit/s)
- ..Bandwidth (Hz)
- ..Byte Rate (Byte/s)
- ..Capacitance (F)
- ..Conductance (S)
- ..Computer Execution Rate (IPS)
- ..Computer Speed (FLOPS)
- ..Current (A)

- ..Time (s)
- ..Velocity (m/s)
- ..Voltage (V)
- ..Wavelength (m)
- ..Word Length (Bit)

Chemical Data

- ..All chemical roles
- ..element
- ..binary system
- ..surface or substrate
- ..adsorbate or any sorbate
- ..dopant
- ..interface system
- ..system with 3 or more components

LITERATURE SEARCH

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Clarivate | Derwent Innovation

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Jump to [Biblio](#) [Abstract](#) [Index](#) [Citation information](#) [Other document information](#)

Index

Inspec Controlled Indexing ?

damping, harmonic distortion, insulated gate bipolar transistors, invertors, power harmonic filters, traction motor drives, voltage-source convertors

Inspec Classification Code ?

B8510 Drives
B2560J Bipolar transistors
B2560R Insulated gate field effect transistors
B8120L Power supply quality and harmonics
B8310 a.c. machines
B8320 d.c. machines
B8360N DC-AC power convertors (invertors)
B8385 Power filters

Numerical Indexing ?

power8.5E+05W, voltage2.2E+03V, frequency6.5E+01Hz, power3.7E+03W, voltage4.0E+02V, frequency5.0E+01Hz

Home > Literature search > Search results

LITERATURE SEARCH

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IPC search in Inspec for relevant NPL

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Collection descriptions Help

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IPC

G05B13/04

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Preview/edit query

IPC=(G05B13/04) AND (TF>=(2020) AND TF<=(2025));

Time span

From

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Search

SEARCH RESULTS

1,372 record(s) found out of 7,121,871 searched (display limit 30,000) 0 record(s) selected

Records per page

10

Showing 1 - 10 of 1372

< < 1 2 3 4 5 > >

Jump to

Go

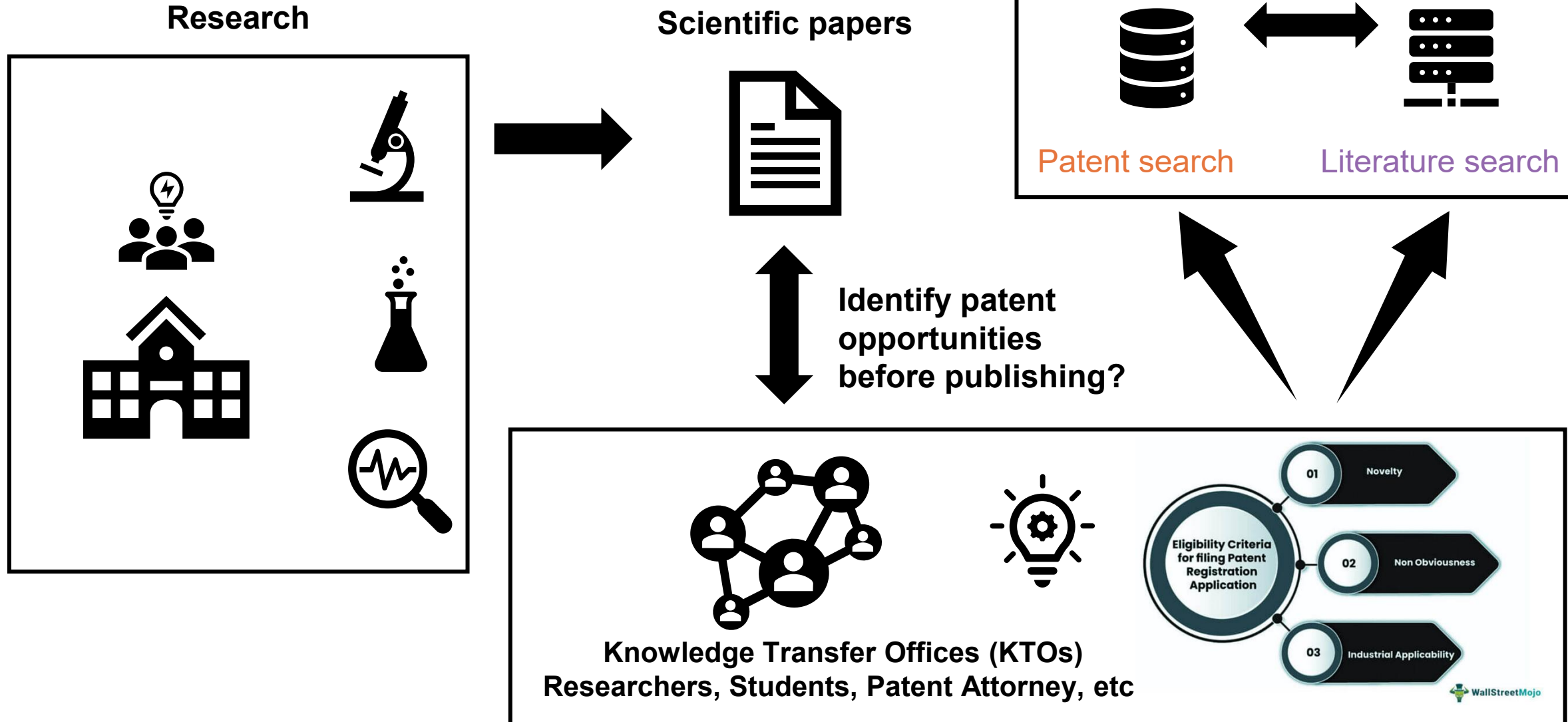
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☐	1	Gdansk University of Technology	2024	Zubowicz, T.	2024 European Control Conference (ECC)	Conference Paper

Title: An Optimized Dissolved Oxygen Concentration Control in SBR with the Use of Adaptive and Predictive Control Schemes

Abstract: This paper addresses the problem of optimizing control of the aeration process in a water resource recovery facility (WRRF) using sequencing batch reactor (SBR), one that affects the efficiency of wastewater treatment by stimulating metabolic reactions of microorganisms through dissolved oxygen (DO) level control, and accounts for the predominant part of operating costs. Two independent approaches to DO control algorithm design based on nonlinear model-based predictive control (NMPC) with constraints and direct model reference adaptive control

Patenting by Universities

Identify patent opportunities from the research outputs



Prior Art Search= Patent search + Literature search

How to conduct a preliminary U.S. patent search: A step-by-step strategy

Prior art

Prior art consists of information that describes an invention and is disclosed to the public including:

- U.S. patents and published patent applications
- Foreign patents and published patent applications
- Journal and magazine articles
- Books, manuals, and catalogs
- Websites and databases
- Conference proceedings
- Scientific papers
- Among other disclosures...



Reference: <https://www.uspto.gov/>

Role of Non-Patent Literature (NPL) in filing a patent application

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All text fields

Author

Time span

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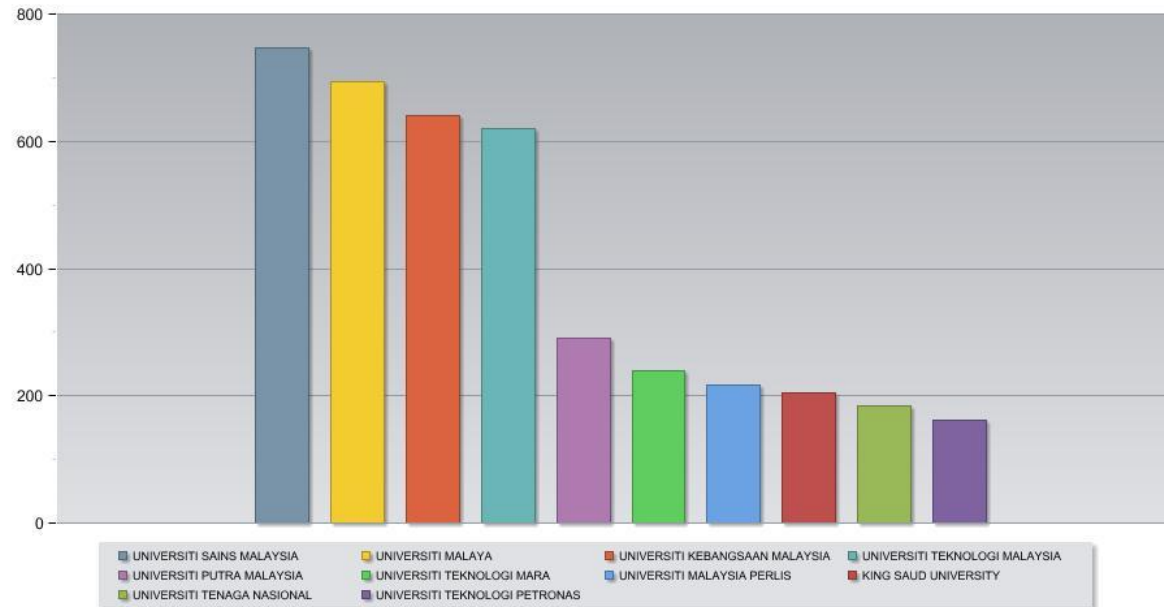
Collection descriptions Help

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SEARCH RESULTS

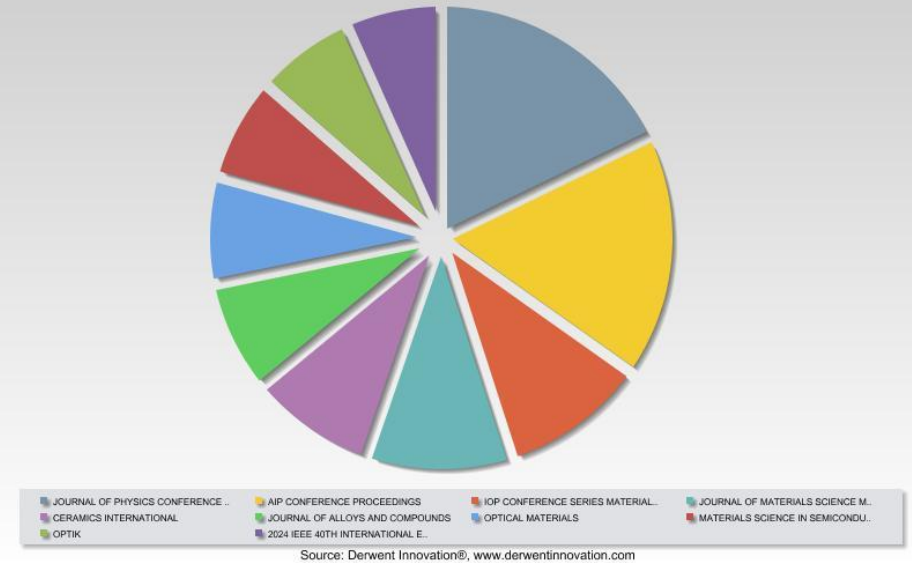
Top Malaysia Organizations with most NPL output in Semiconductor

Top organizations



Source: Derwent Innovation®, www.derwentinnovation.com

Top Journals



Source: Derwent Innovation®, www.derwentinnovation.com

1. 5,568 records (NPL on Derwent Innovation) in total (from 2020 to 2025),
2. Universiti Sains Malaysia authors with 749 published articles listed as top 1.
3. Universiti Malaya (701 articles)
4. Universiti Kebangsaan Malaysia (641 articles)
5. 4138 Journal articles, 1547 conference articles

Key Topics of Inspec's NPL from Malaysia (2020-2025)

Analyze with Inspec Controlled Indexing

4,941 publications selected from Inspec®

Controlled Terms

Sort by:

Results count

Show:

25

Minimum record count:

1

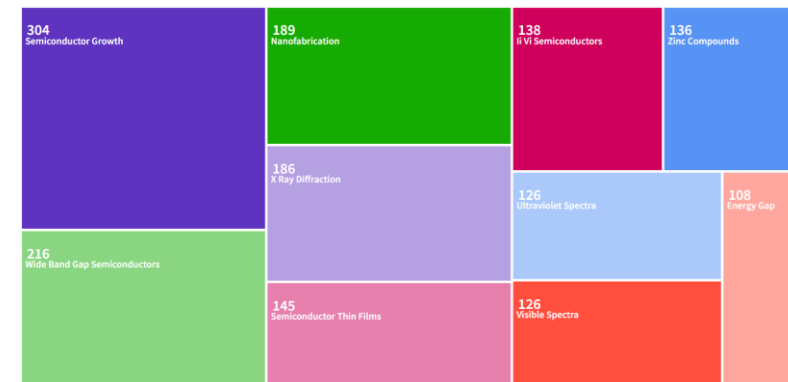
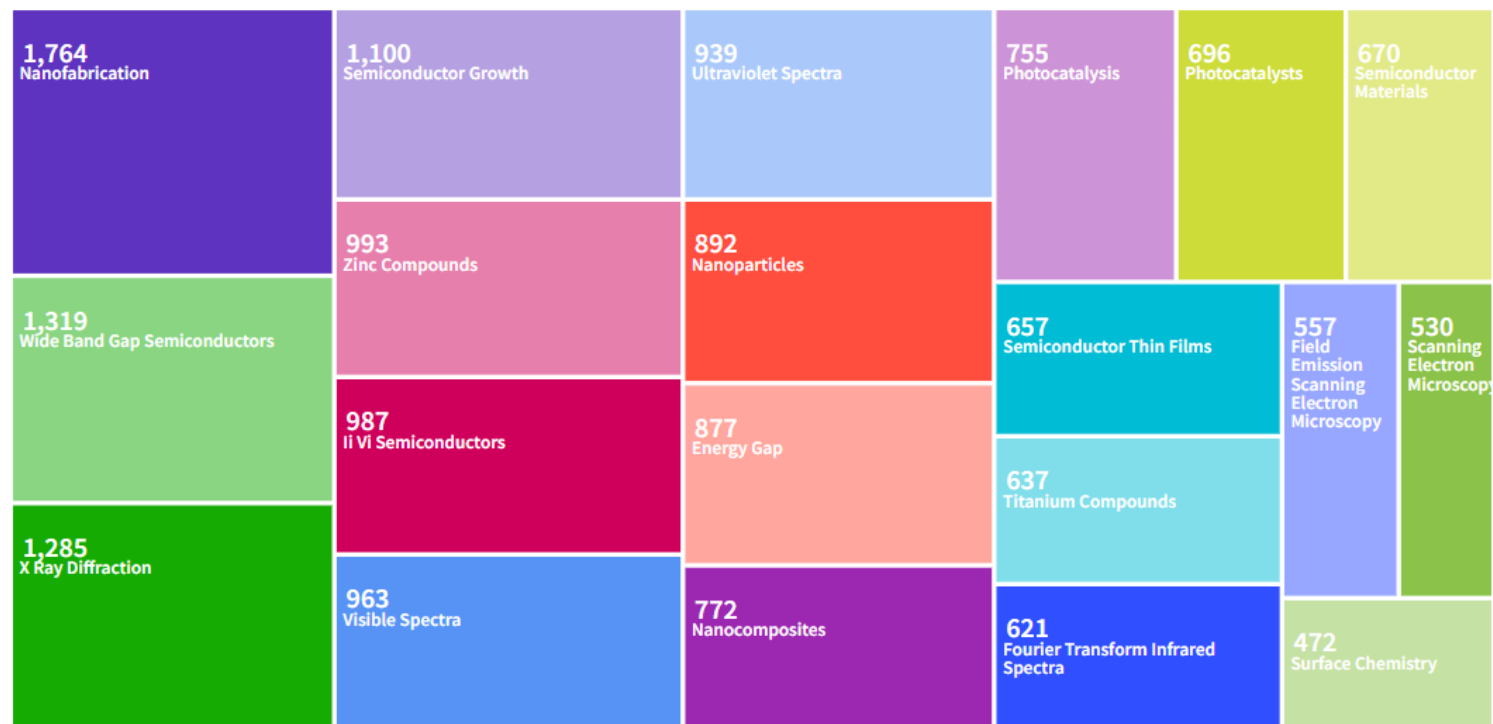
Visualization:

TreeMap Chart

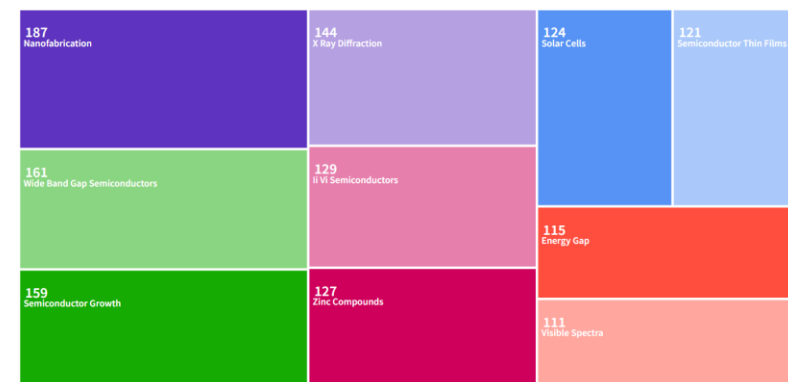
Number of results:

20

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Key Topics of Inspec's NPL from Univ. Sains Malaysia (2020-2025)



Key Topics of Inspec's NPL from Univ. KEBANGSAAN MALAYSIA (2020-2025)

Top Malaysia Organizations with most patent output in Semiconductor

Who are the major players?

Identify the top assignees in this result set.

144%

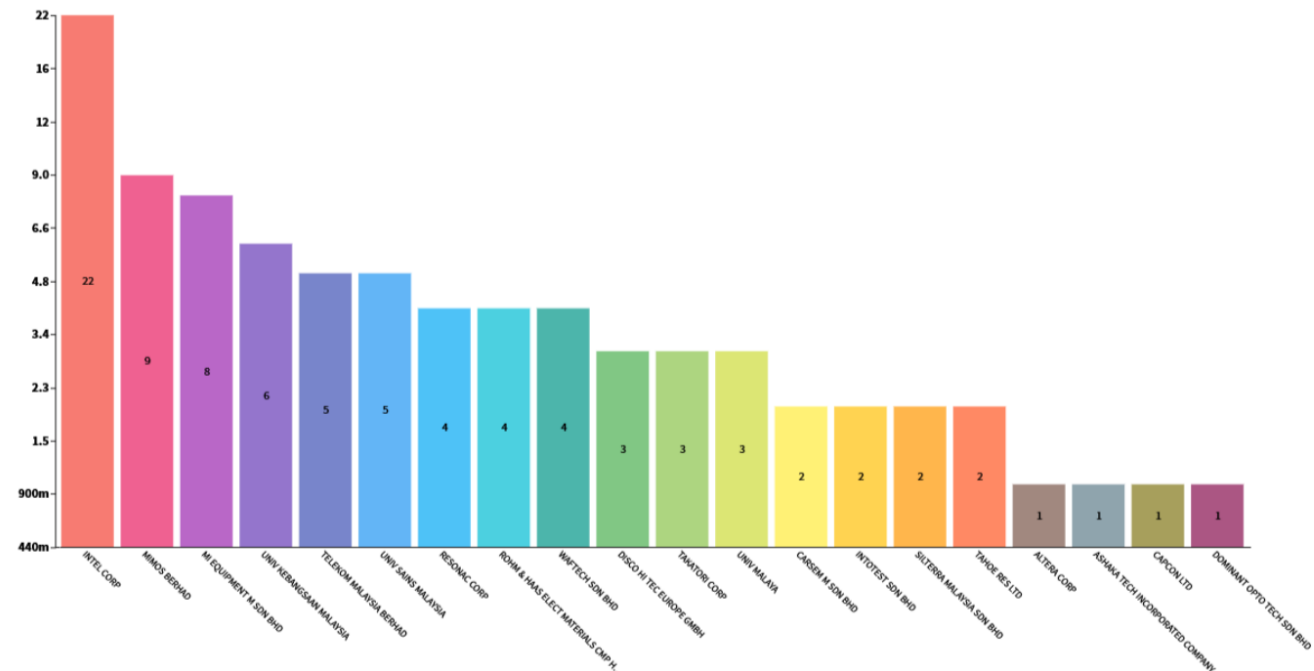
In this chart, the top assignee, **INTEL CORP** has 144% (13 records) more than their closest competitor, **MIMOS BERHAD**.

31%

Compared to the top 10 competitors in this result set, **INTEL CORP** has 31% of those records.

Legend

- INTEL CORP (22)
- MIMOS BERHAD (9)
- MI EQUIPMENT M SDN BHD (8)
- UNIV KEBANGSAAN MALAYSIA (6)
- TELEKOM MALAYSIA BERHAD (5)
- UNIV SAINS MALAYSIA (5)
- RESONAC CORP (4)
- ROHM & HAAS ELECT MATERIALS CMP HOLDINGS INC (4)
- WAFTECH SDN BHD (4)
- DISCO HI TEC EUROPE GMBH (3)
- TAKATORI CORP (3)
- UNIV MALAYA (3)
- CARSEM M SDN BHD (2)
- INTOTEST SDN BHD (2)
- SILTERRA MALAYSIA SDN BHD (2)
- TAHOE RES LTD (2)
- ALTERA CORP (1)
- ASHAKA TECH INCORPORATED COMPANY (1)
- CAPCON LTD (1)
- DOMINANT OPTO TECH SDN BHD (1)



Universiti Kebangsaan Malaysia (6 patents)

Universiti Sains Malaysia (5 patents)

Universiti Malaya (3 patents)

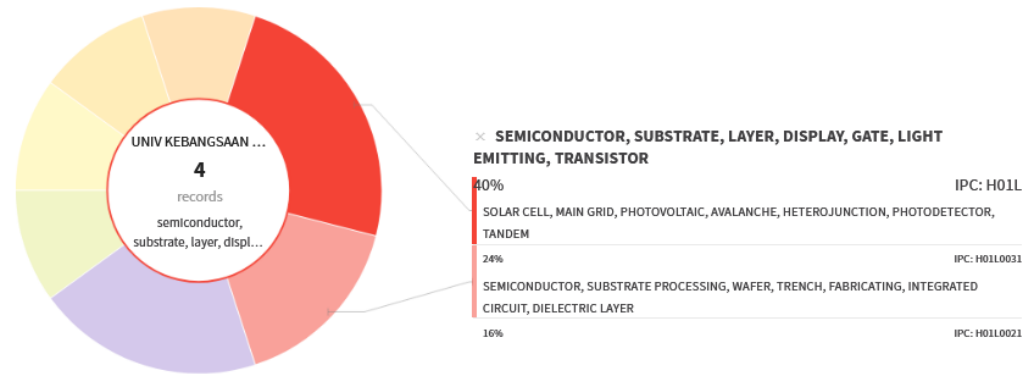
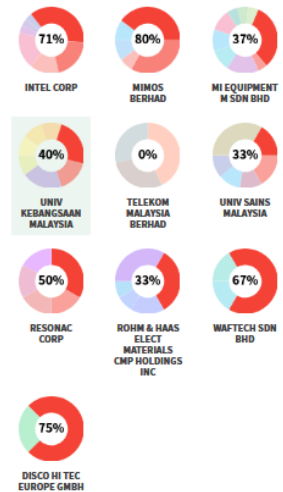
Intel (22 patents)

MIMOS Berhad (9 patents)

Mi EQUIPMENT (M) SDN BHD (8 patents)

Compare the specific technical focus between organizations

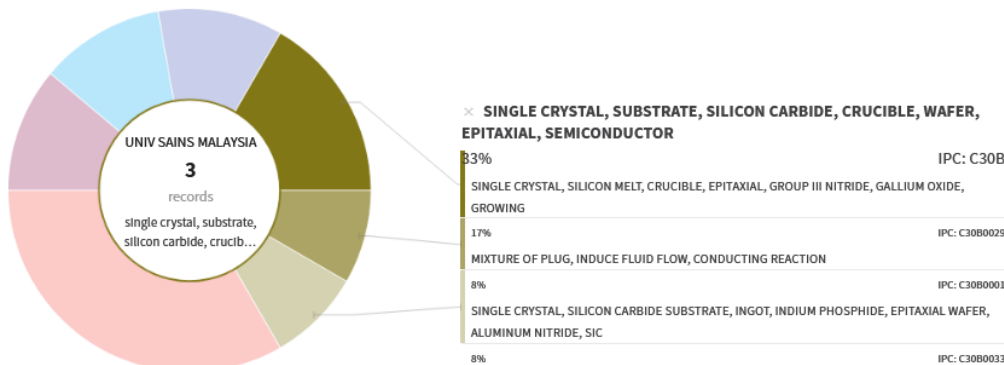
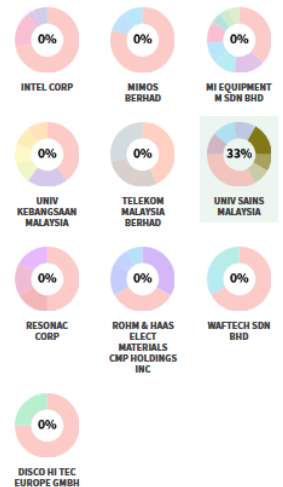
Assignees



The number of technologies represented can speak to a diverse portfolio, or a specific technical focus.

1. Universiti Kebangsaan Malaysia's patents focus on SEMICONDUCTOR, SUBSTRATE, LAYER, DISPLAY, GATE, LIGHT EMITTING, TRANSISTOR (IPC: H01L)
2. Universiti Sains Malaysia's patents focus on SINGLE CRYSTAL, SUBSTRATE, SILICON CARBIDE, CRUCIBLE, WAFER, EPITAXIAL, SEMICONDUCTOR (IPC: C30B)

Assignees



What technologies are being developed now?

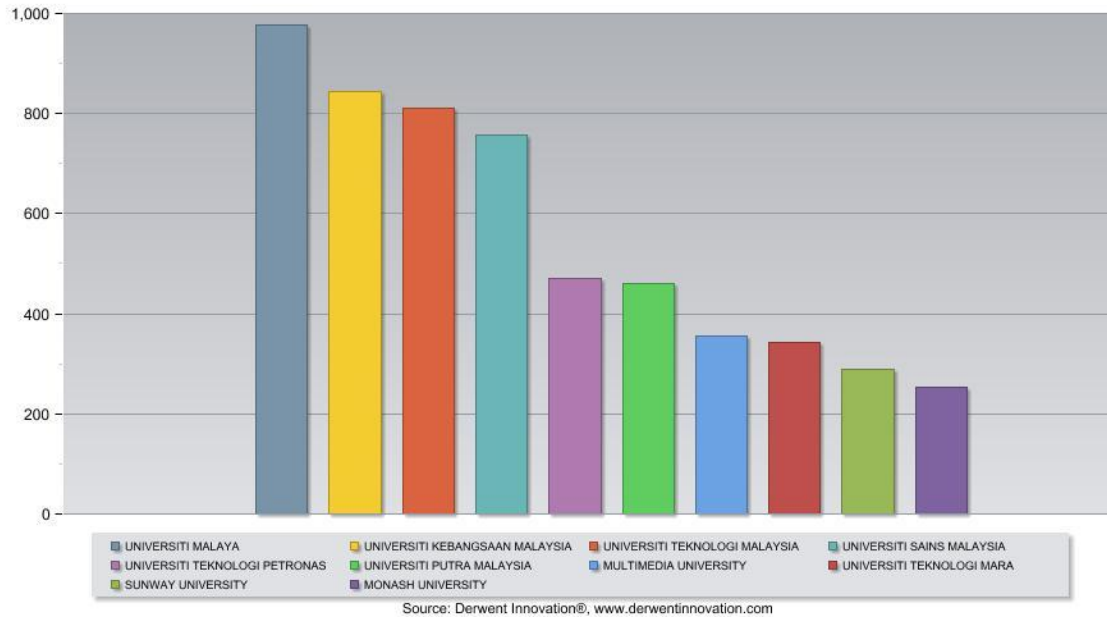
Uncover the most recent innovations and those that are new and growing



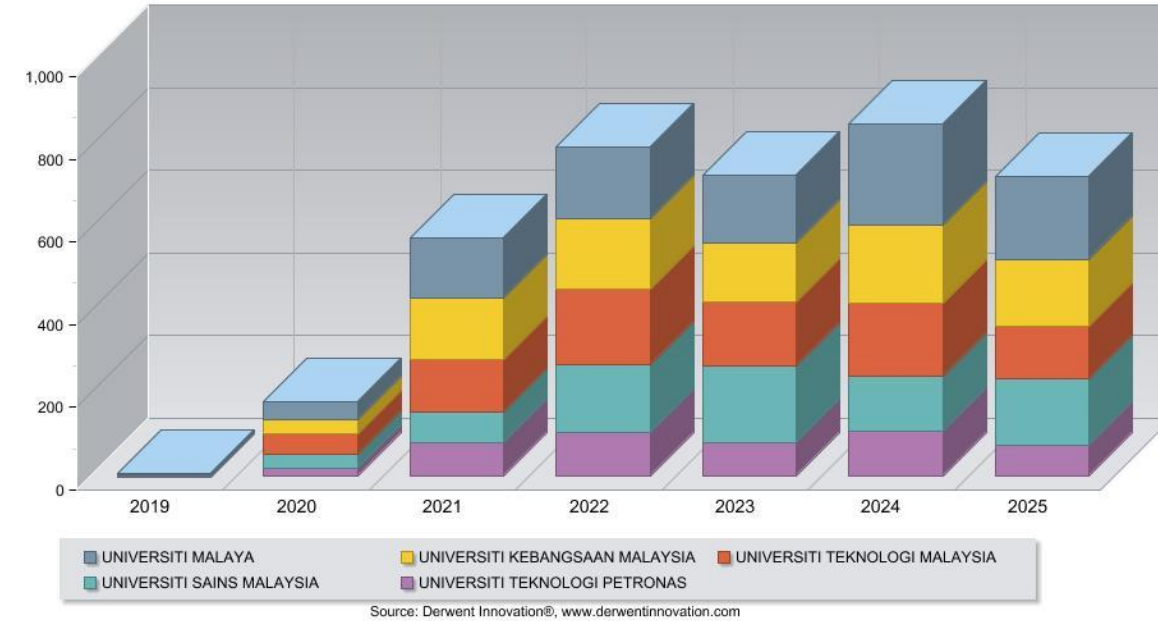
The top 3 organizations developing in these technologies now are [INTEL CORP](#), [MI EQUIPMENT M SDN BHD](#) and [UNIV KEBANGSAAN MALAYSIA](#) and they account for 61% of all records in the entire result set.

Top Malaysia Organizations with most NPL output in “AI”

Top organizations



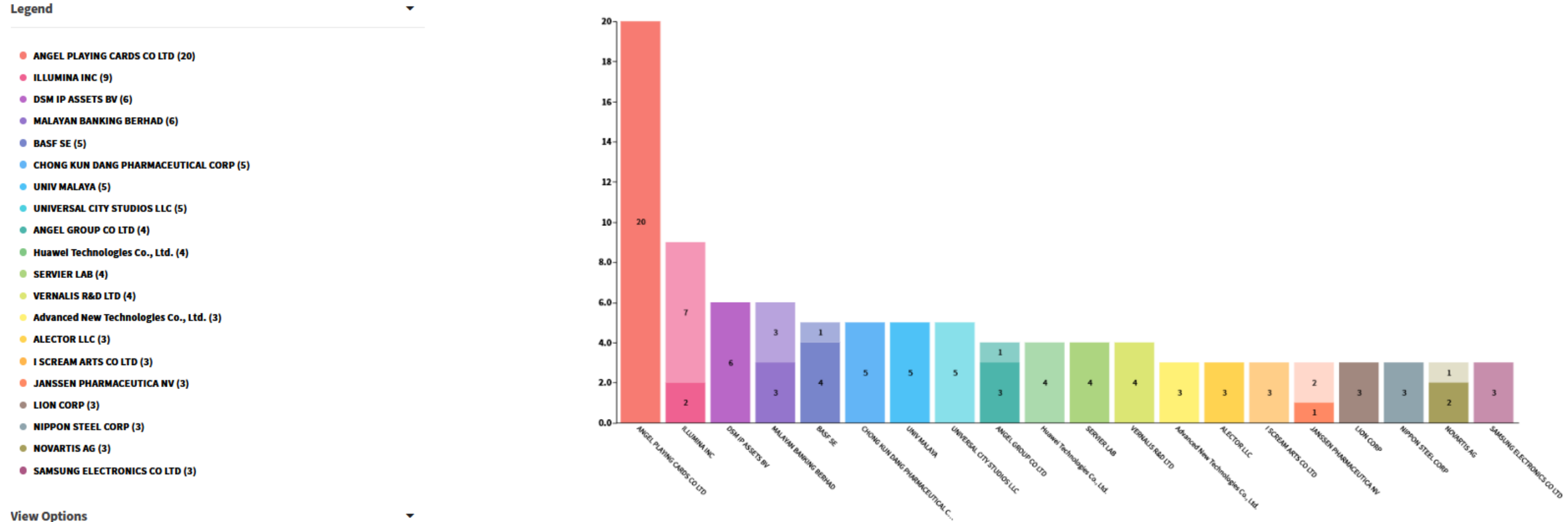
Top organizations by year



1. 15,586 records (NPL on Derwent Innovation) in total (from 2020 to 2025),
2. Universiti Malaya authors with 976 published articles listed as top 1.
3. Universiti Kebangsaan Malaysia (845 articles)
4. University of Technology Malaysia (811 articles)
5. Universiti Malaya has been leading in “AI” publications over the years

Who are the major players in terms of patents in “AI”?

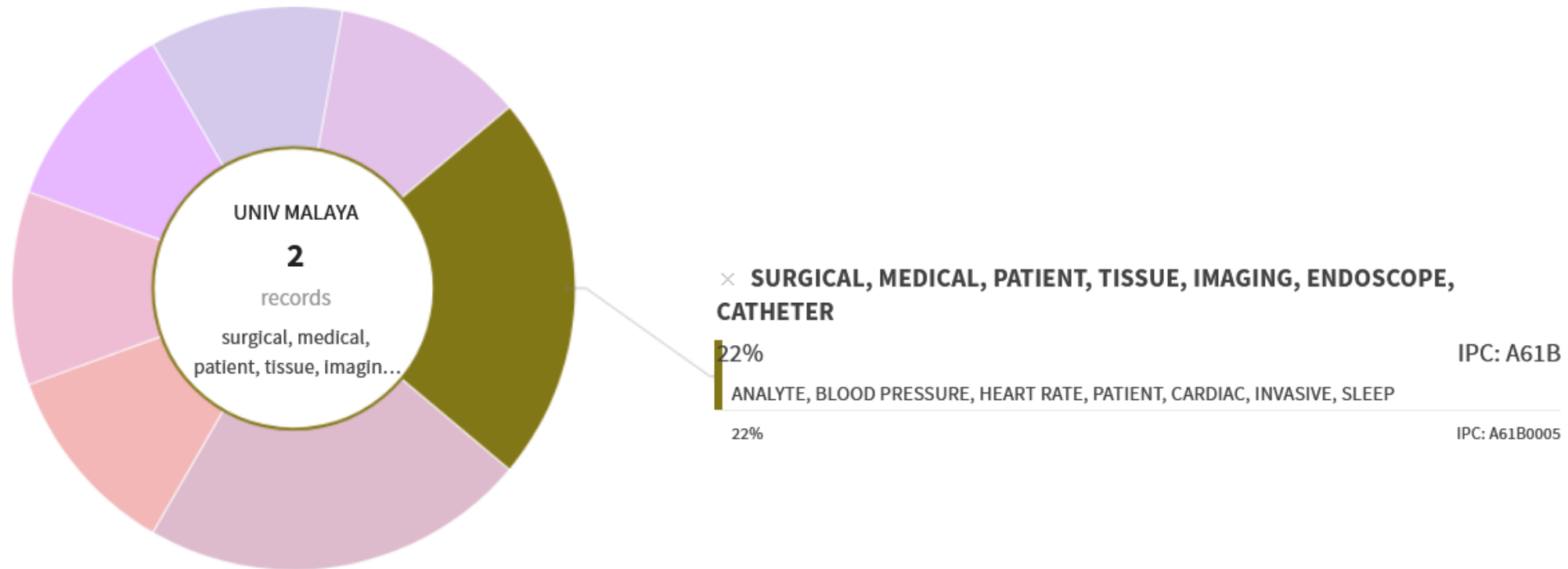
Identify the top assignees in “AI” from Malaysia



1. 410 records (Patents on Derwent Innovation) in total (from 2020 to 2025)
2. ANGEL PLAYING CARDS CO LTD (20 patents) is the Top 1 assignee of AI related patents in Malaysia
3. Universiti Malaya with 5 patents is the only assignee from academic sector in Malaysia

What are my competitors working on?

Understand which technical areas the competition is focusing on



Univ. Malaya:

2 patents in [IPC: A61B SURGICAL, MEDICAL, PATIENT, TISSUE, IMAGING, ENDOSCOPE, CATHETER](#)

2 patent in [IPC: G06N NEURAL NETWORK, MODEL, TRAINING, ARTIFICIAL INTELLIGENCE, IMAGE, FEATURE, COMPUTER](#)

1 patent in [IPC: A61N STIMULATION, PATIENT, THERAPY, IMPLANTABLE MEDICAL, CARDIAC, NERVE, TISSUE](#)

1 patent in [IPC: F16H GEAR, DRIVE, VEHICLE, SHAFT, MOTOR, PLANETARY, SHIFT](#)

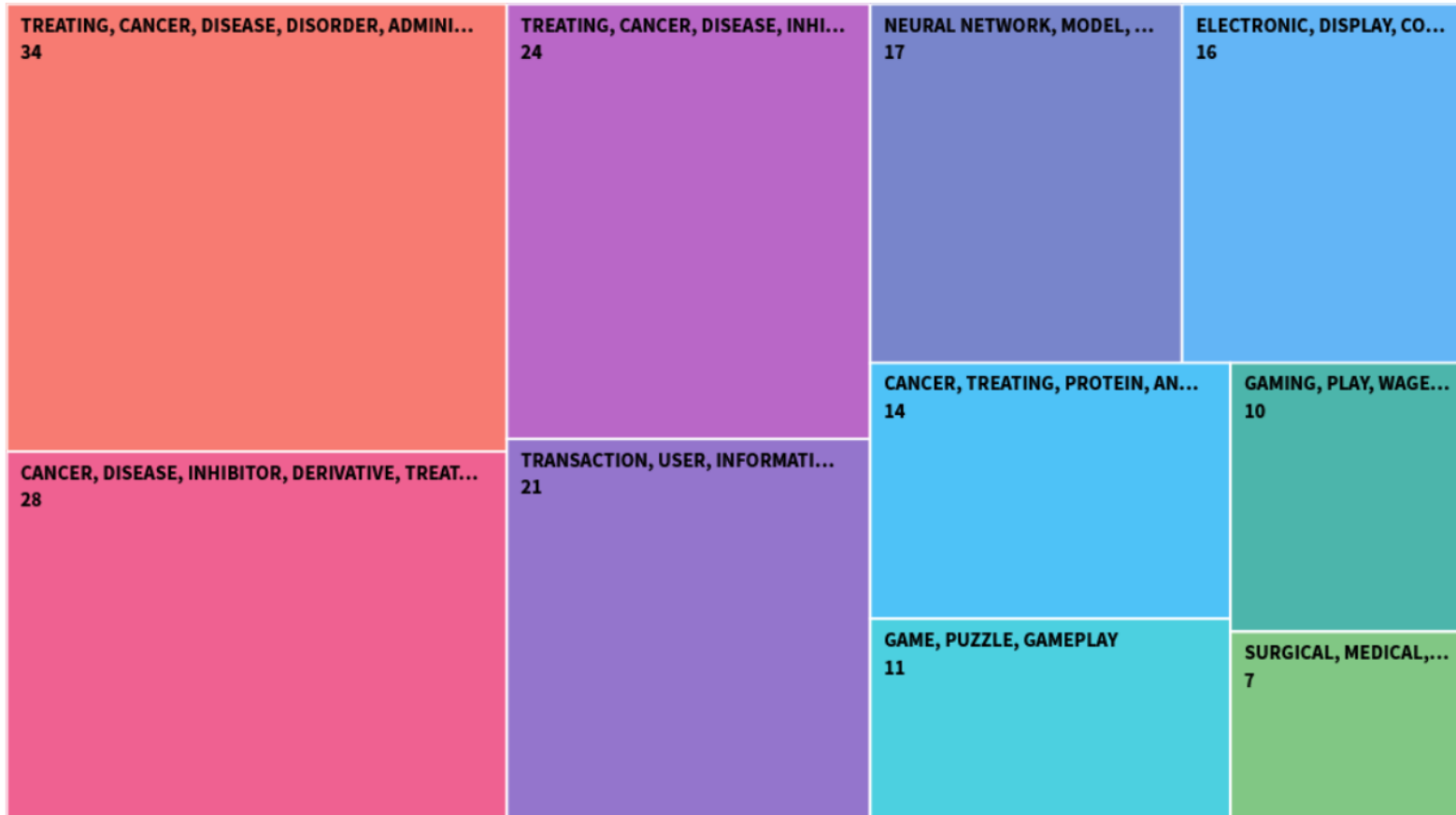
1 patent in [IPC: G05B CONTROL, CONTROLLING, PROGRAM, AUTOMATION, INDUSTRIAL, PROCESSING, OPERATION](#)

1 patent in [IPC: G06F ELECTRONIC, DISPLAY, CONTROL, INPUT, IMAGE, RESPONSE, OBJECT](#)

What technologies are being developed now?

Uncover the most recent innovations and those that are new and growing

208 new records in this time period.

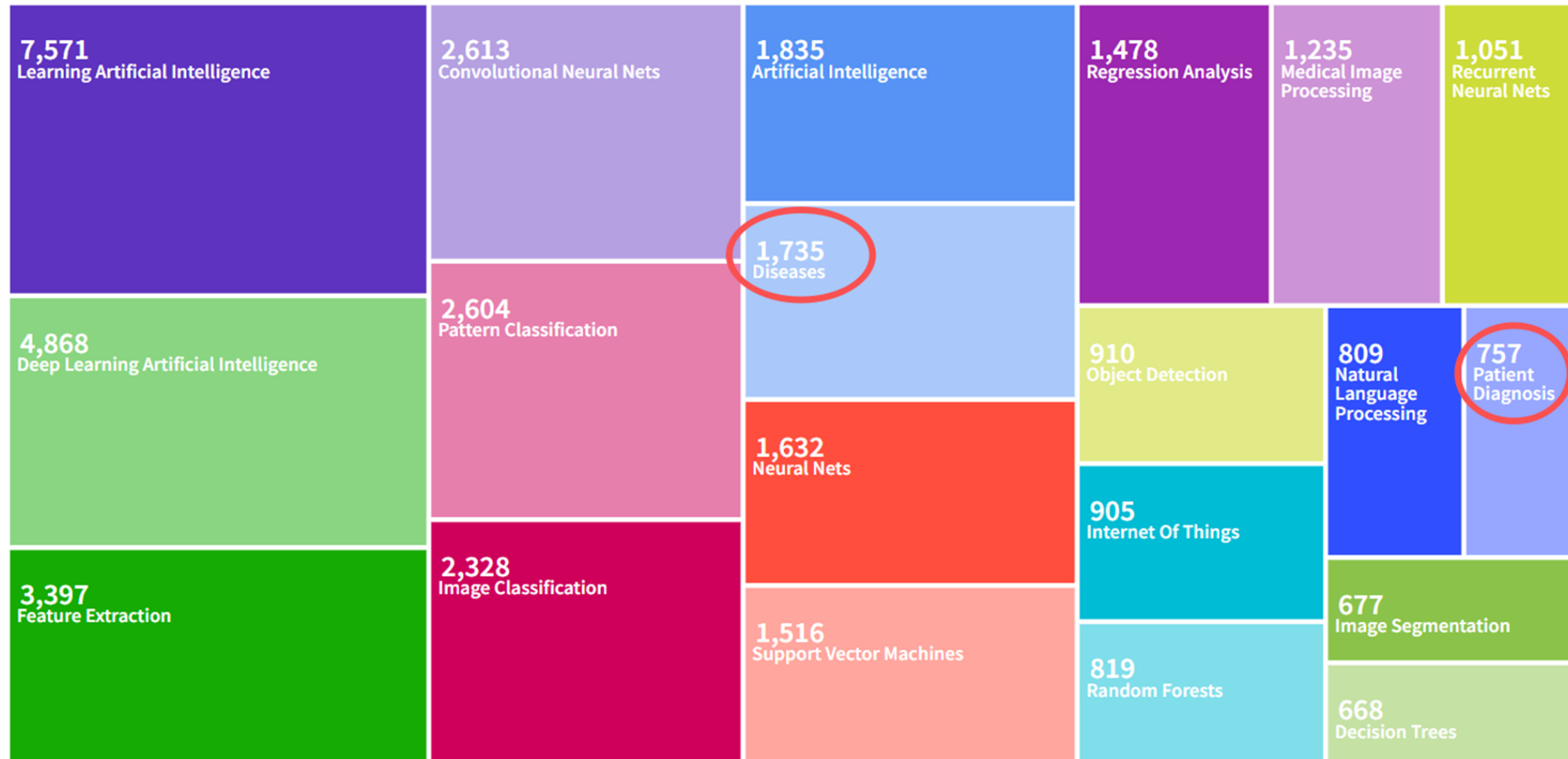


The top 3 companies developing in these technologies now are **ANGEL PLAYING CARDS CO LTD**, **ILLUMINA INC** and **DSM IP ASSETS BV** and they account for 51% of all records in the entire result set.

The top 3 technologies in the last 3 years are:

- TREATING, CANCER, DISEASE, DISORDER, ADMINISTERING, PREVENTING, PHARMACEUTICAL
- CANCER, DISEASE, INHIBITOR, DERIVATIVE, TREATING, SUBSTITUTED, DISORDER
- TREATING, CANCER, DISEASE, INHIBITOR, DISORDER, PREVENTING, PHARMACEUTICAL

Correlation between patent technology and paper topics from Malaysia



- “Diseases,” “Medical Image Processing,” and “Patient Diagnosis” are among the top topics identified in Non-patent literatures.
- The leading technologies highlighted in patents under the umbrella of “AI” are frequently related to diseases and cancers, among other health applications.

Conclusion for the semiconductor and AI cases in Malaysia

1. **Malaysian higher education institutions are strong in academic publishing, but they hold relatively few patents in semiconductors and AI**; companies publish fewer papers in these areas yet own significantly more related patents.
2. **The topics of published papers closely match the technologies emphasized in the patents**, indicating a positive correlation between Malaysian universities' research areas and the patent technologies they pursue.
3. This pattern applies to both semiconductors and AI: **universities that publish more papers also file more patents**. In specific cases, the top institutions by publication count are also the top assignees of the relevant patents.

Summary of the relationship between publication of literature (papers) and patent filing

- **Complementary aims:** Academic papers advance knowledge and demonstrate novelty, rigor, and reproducibility, while patents protect practical innovations and grant exclusive rights. Together, **they often represent different stages of the same innovation journey.**
- **Timing considerations:** Researchers must balance disclosure and protection. **Filing for a patent before public disclosure preserves novelty**, but some venues allow provisional or confidential disclosures. Early publication can reveal enabling details that impact patentability unless protected by an earlier filing.
- **Knowledge transfer and impact:** Papers can support patentability by establishing novelty, non-obviousness, and utility, while **patents can enhance the impact of a publication by enabling commercial translation, licensing, or startup creation.**
- **Dependency and reporting:** Patent literature and academic literature influence each other. **Prior art searches rely on both patent databases and scholarly articles.** Publications may reference patent claims, and patents may cite academic work.
- **Outcomes and incentives:** Publications drive reputation, citations, and scholarly impact. Patents drive potential revenue, licensing opportunities, and industry collaboration. A well-integrated strategy can enhance both **scientific influence and practical value.**

Science drives Inspec.

Inspec drives **Innovation**.



Think forward

Thank You

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