企業實務個案探討-IoT

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Building a Market for Intellectual Property

工業資訊分析模組

工業資訊

- Industry Status
- SIC/NAICS Codes
- Environment
- Top Companies
- Professional Associations
- Trade Periodicals/Journals
- Unions
- Products
- Service
- Customers
- Areas of Growth
- New Technologies
- Industry Trends

Standard Industrial Classification

SIC

SIC

- 標準產業分類碼（Standard Industrial Classification, SIC）是4位數字組成，由美國政府為了對商業機構確定其主營業務而建立。方便收集、描述和分析數據；並為了加強統一性和可比性,由聯邦政府的各個機構包括國家機構和私人組織提供統計數據。分類涵蓋所有經濟行為：農業，林業，漁業，狩獵和捕殺；採礦；施工；製造業；運輸；通信，電力，天然氣和衛生服務；批發貿易；零售貿易；金融；保險和房地產；個人，企業，專業，修理娛樂及其他服務；公共行政。

SIC

- 分類涵蓋了所有的經濟活動：農業，林業，漁業，狩獵及俘獲，採礦，建築，製造，交通，通訊，電力，天然氣和清潔服務業，批發貿易，零售貿易，金融，保險，房地產等以及個人，企業，專業，修理，娛樂和其他服務和公共管理。

North American Industry Classification System

NAICS

NAICS

- 北美洲產業分類系統（The North American Industry Classification System ,NAICS)是一個新的經濟分類體系，以取代1987年SIC作統計用途。由美國，加拿大和墨西哥聯合開發提供新可比性在統計關於經營活動橫跨北美洲，用以編輯與記錄經濟資料。指定編碼予數以千計的服務產品，針對租用產品的服務業特別有用。

NAICS

- 從1997年開始，標準工廠分類(SIC)即被北美工業分類系統所取代。此六位數代碼是一個主要的修改，它不僅為新行業提供了代碼，而且以產品/加工為基礎進行了重新分類。首兩位數字確定一個主要經濟行業，第三位數字指定一個經濟界別分組，第四位數字指定的一個工業集團，而第五位指定NAICS的行業。這一新的、統一的全行業分類系統已被作為美國、加拿大和墨西哥所有經濟活動統計報告的索引。NAICS 代碼可檢索有關特定行業的文章。在將代碼用於檢索詞時，NAICS 代碼是一種按行業精確查找信息的快速方法。

How to Learn About an Industry or a Specific Company

Internet of Thing

JPO

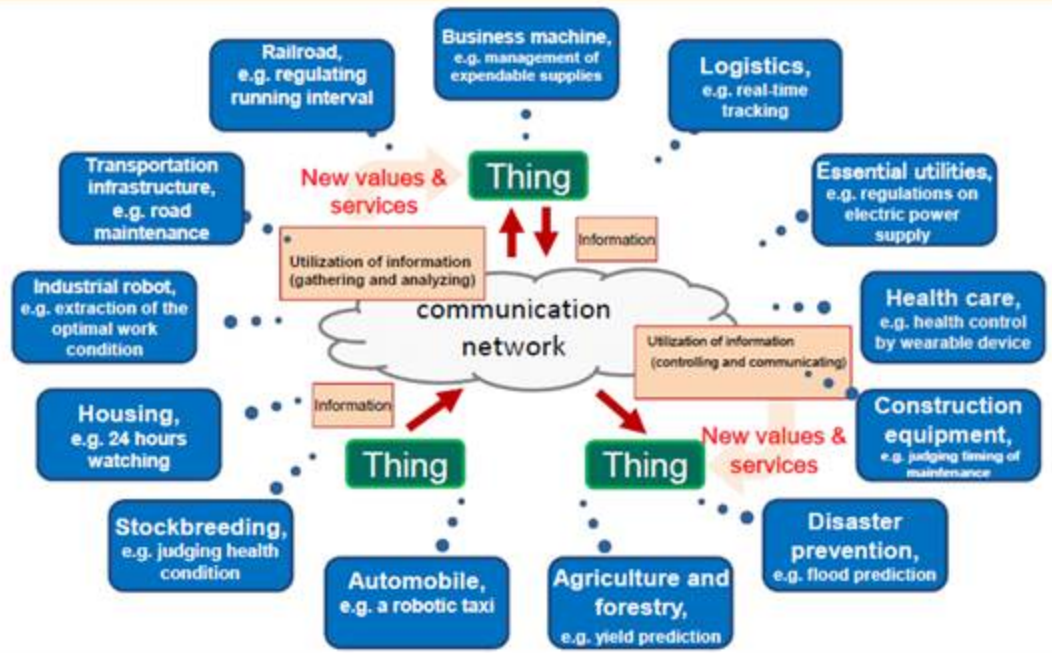
Establishment of a New Classification regarding IoT (Internet of Things)

Feb 2017

JAPAN PATENT OFFICE

Rapid advances in IoT technology

R&D and Application to business of the IoT(Internet of Things), i.e. "technology of creating new values and services through utilization of information collected by connecting things with network" are rapidly advancing.



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A New Classification regarding IoT

IoT

- Cross-cutting technology
- Concept is vague and a broad sense
- Difficult to predict fully promising and applied areas

  IPC,FI and CPC system is not enough
- Comprehensive cross-cutting prior art search of IoT
- Catch up technical trend of IoT

All IP Offices and Industrial sector need a new classification regarding IoT as soon as possible

A New Classification regarding IoT

JP has a national classification Facet in addition to FI and F-term

- Facet covers all field of FI(A section to H section) or the part of the fields of FI, e.g. plural of subclass or plural of group. Facet is able to set the coverage area larger than F-term
- The Facet enables to prior art search of viewpoint differing from that in FI and F-term

A New Classification regarding IoT

New Broad Facet

- JP established a new Facet ZIT regarding IoT in Nov 2016 and started to classify the Facet into Japanese patent documents
- JP subdivided of ZIT in April 2017

A New Classification regarding IoT

ZIT	Ｉｎｔｅｒｎｅｔ　ｏｆ　Ｔｈｉｎｇｓ〔ＩｏＴ〕〔適用範囲 全範囲〕
ZJA	・農業用；漁業用；鉱業用〔適用範囲 全範囲〕
ZJC	・製造業用〔適用範囲 全範囲〕
ZJE	・電気，ガスまたは水道供給用〔適用範囲 全範囲〕
ZJG	・ホームアンドビルディング用；家電用〔適用範囲 全範囲〕
ZJI	・建設業用〔適用範囲 全範囲〕
ZJK	・金融用〔適用範囲 全範囲〕

A New Classification regarding IoT

ZJM	・サービス業用〔適用範囲 全範囲〕
ZJP	・ヘルスケア用，例．病院，医療または診断；社会福祉事業用〔適用範囲 全範囲〕
ZJR	・ロジスティックス用，例．倉庫，積み荷，配達または輸送〔適用範囲 全範囲〕
ZJT	・運輸用〔適用範囲 全範囲〕
ZJV	・情報通信業用〔適用範囲 全範囲〕
ZJX	・アミューズメント用；スポーツ用；ゲーム用〔適用範囲 全範囲〕

A New Classification regarding IoT

Symbol: ZIT

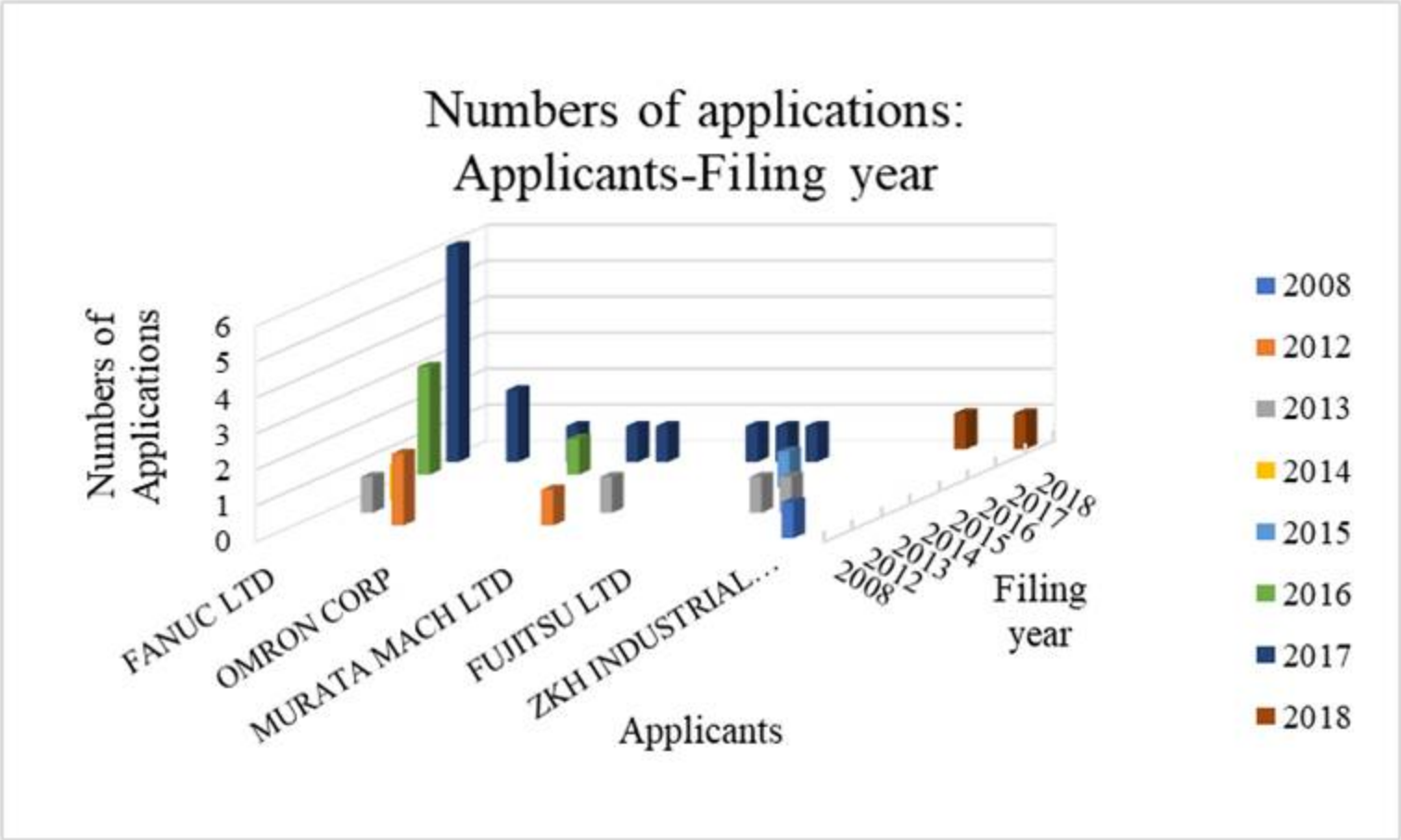
- Applicable Area: All
- Main Aim: Identify new patent application regarding IoT and enable a comprehensive search
- Title: Internet of Things[IoT], i.e. technique of creating new values and services through utilization of information collected by connecting things with network.

Note(s)

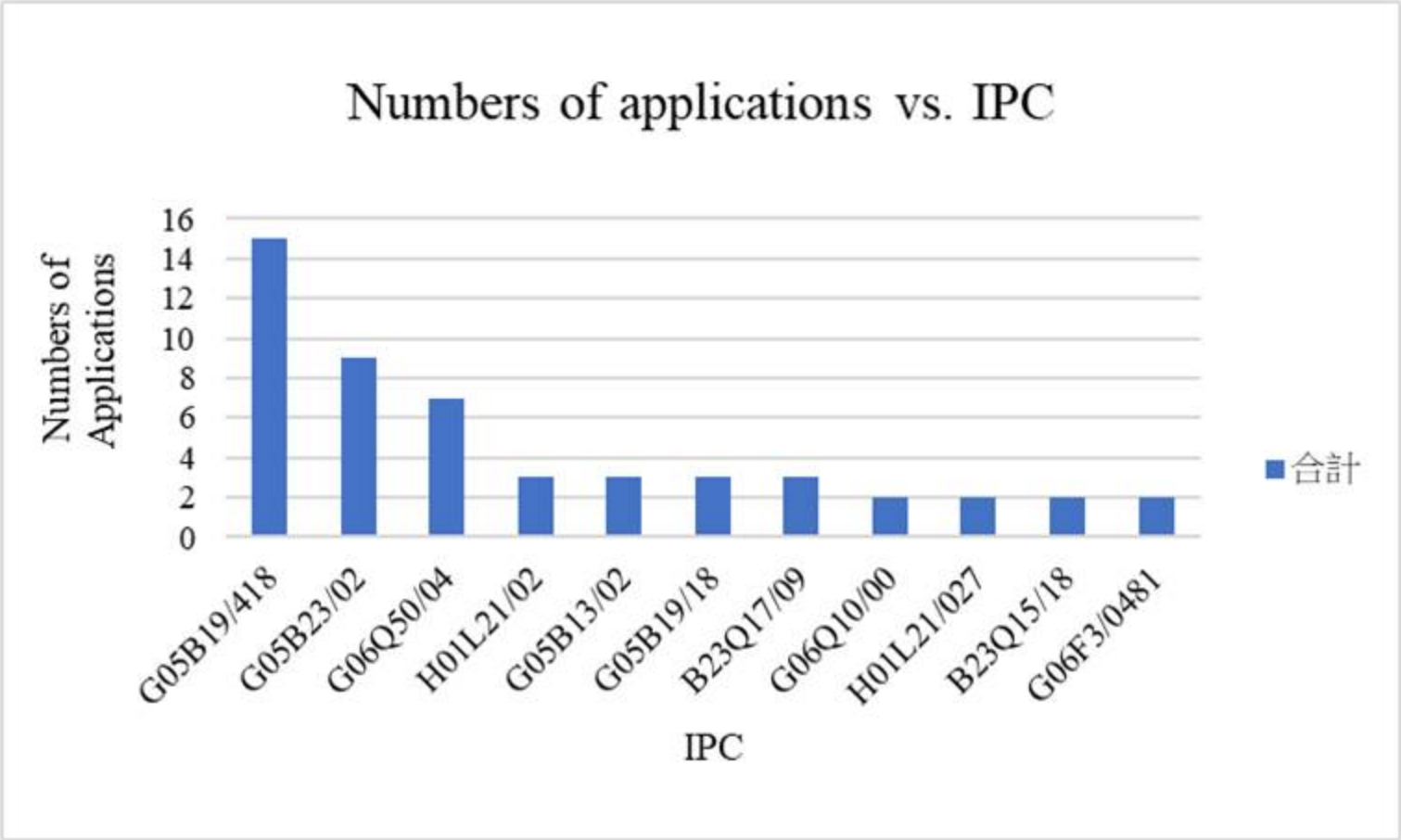
- In this facet, the following term with the meaning:

"creating new values and services" means generating new information by use of the collected information and then provision or utilization of the new information

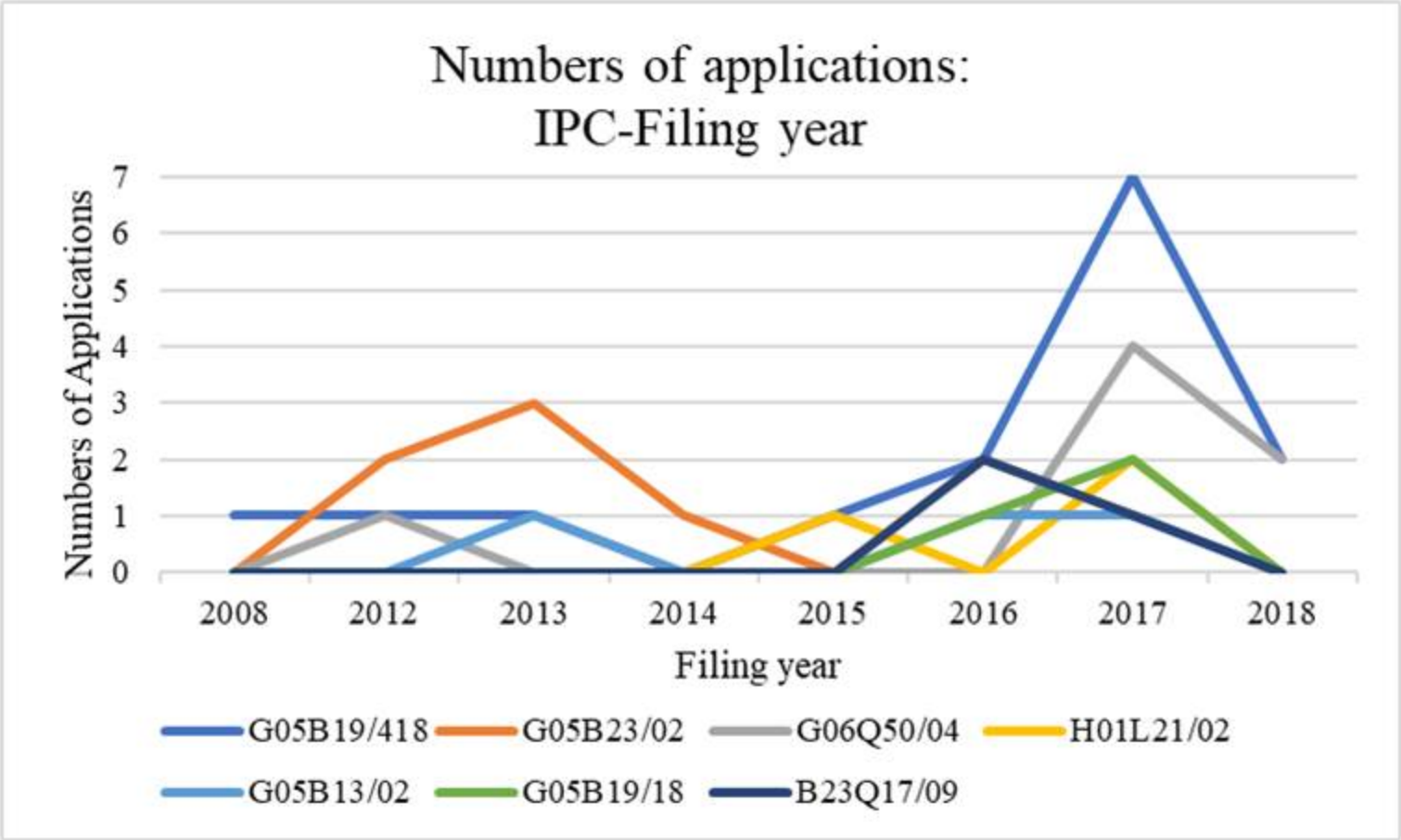
Facet: ZJC 分類下，含有FI: G05分類的專利數量，依專利權人與申請年份劃分



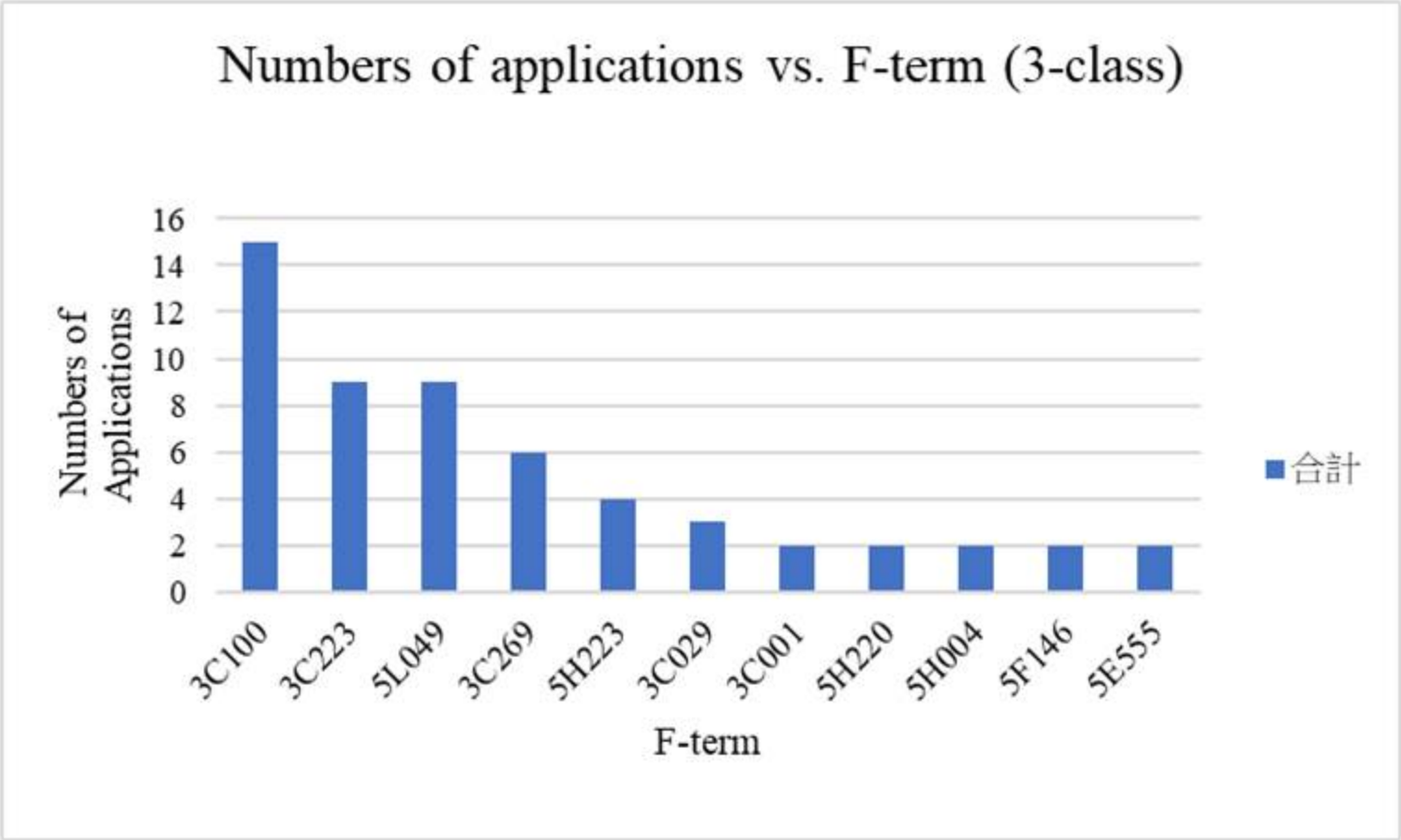
Facet: ZJC 分類下，含有FI: G05分類的專利總量，依IPC五階分類劃分



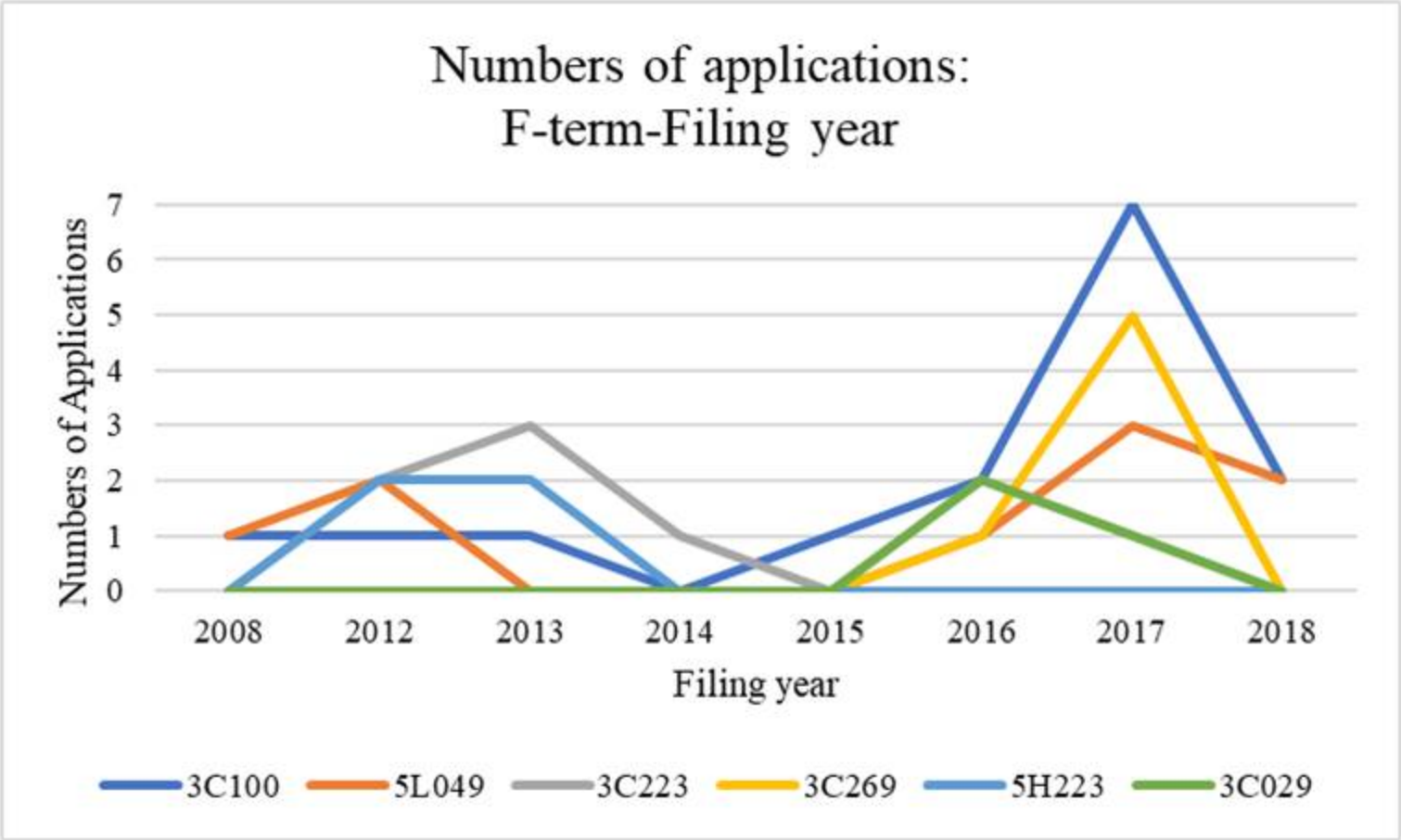
Facet: ZJC 分類下，含有FI: G05分類的專利總量，依IPC五階分類與申請年份劃分



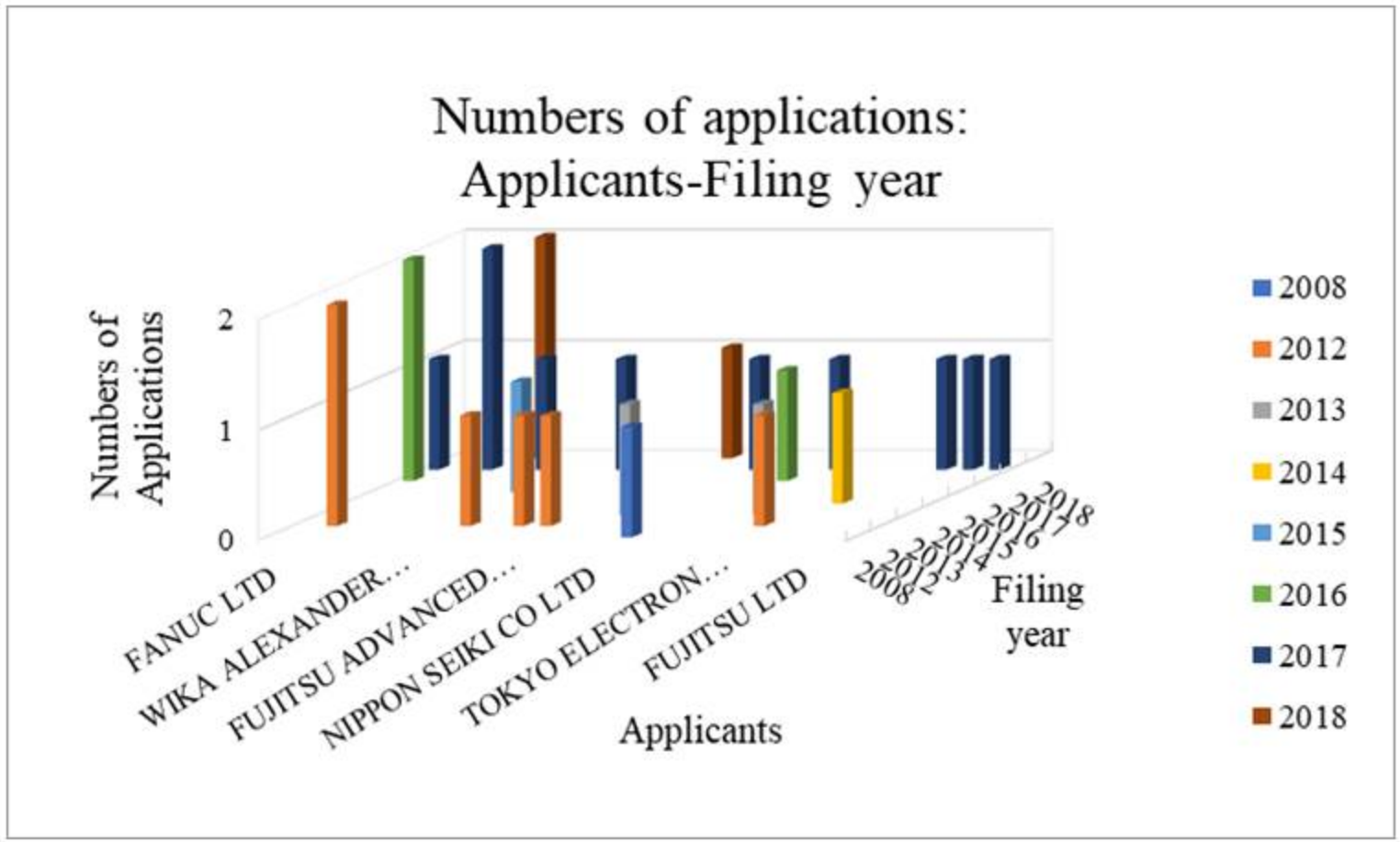
Facet: ZJC 分類下，含有FI: G05分類的專利總量，依F-term三階分類劃分



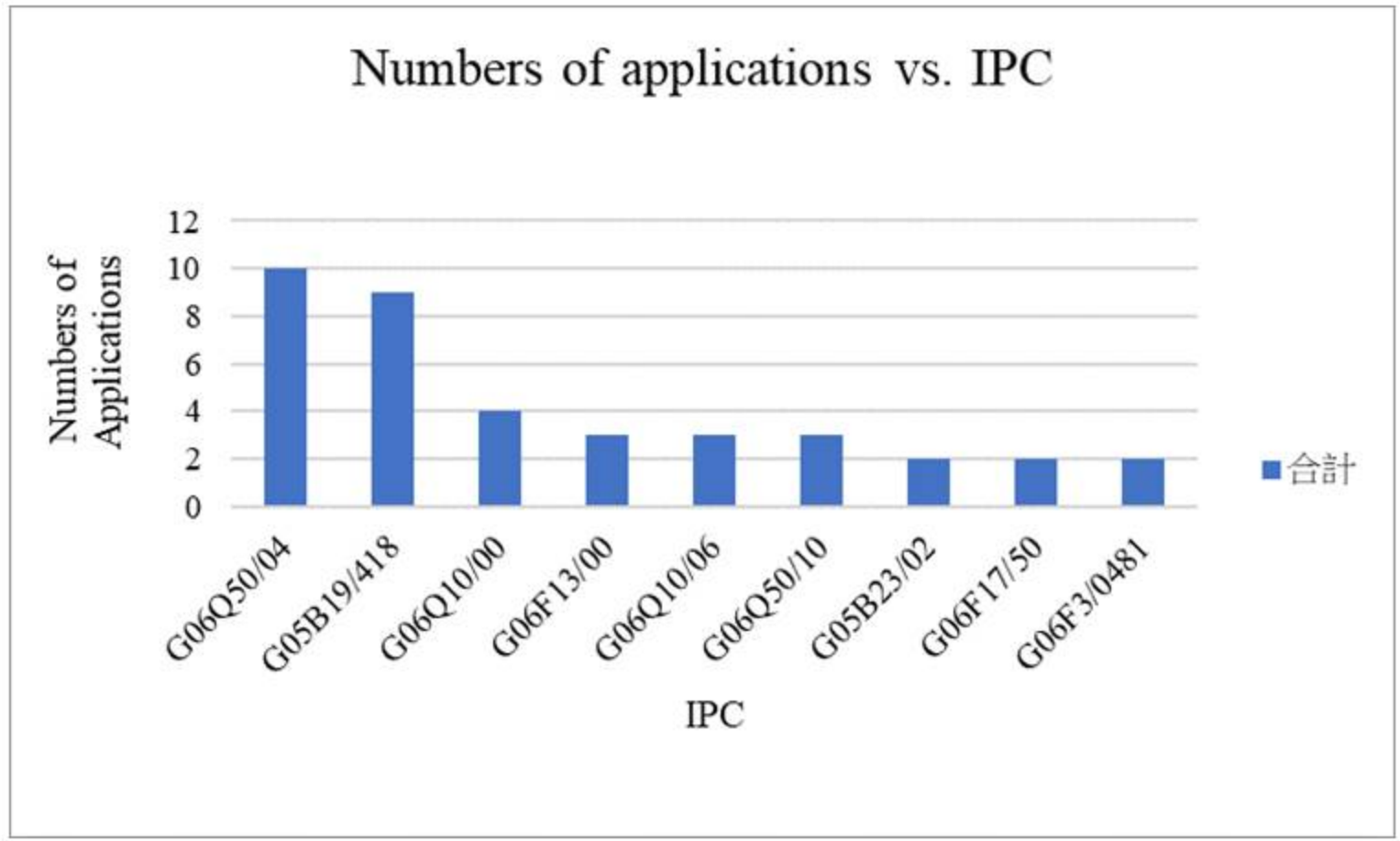
Facet: ZJC 分類下，含有FI: G05分類的專利總量，依F-term與申請年份劃分



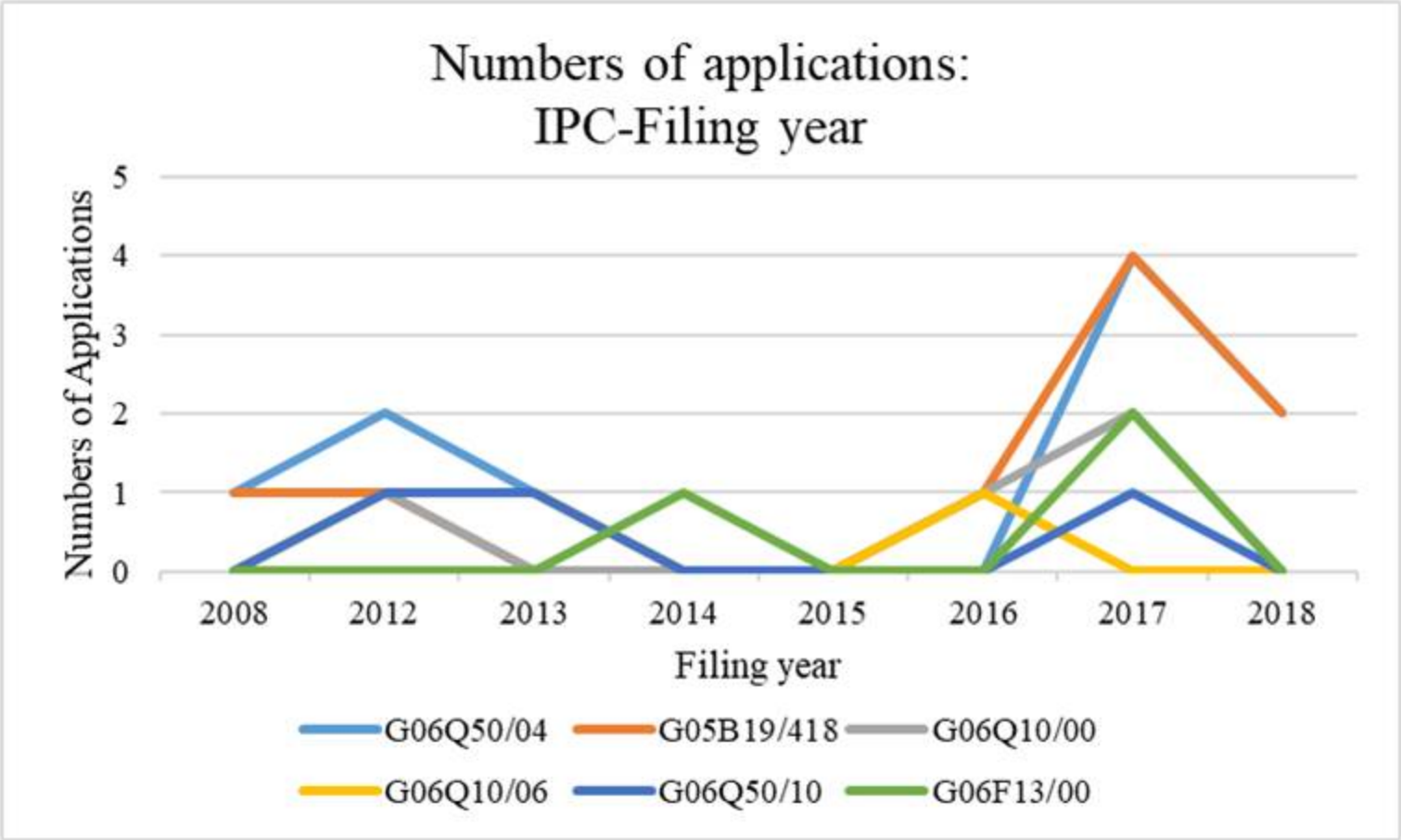
Facet: ZJC 分類下，含有FI: G06分類的專利數量，依專利權人與申請年份劃分



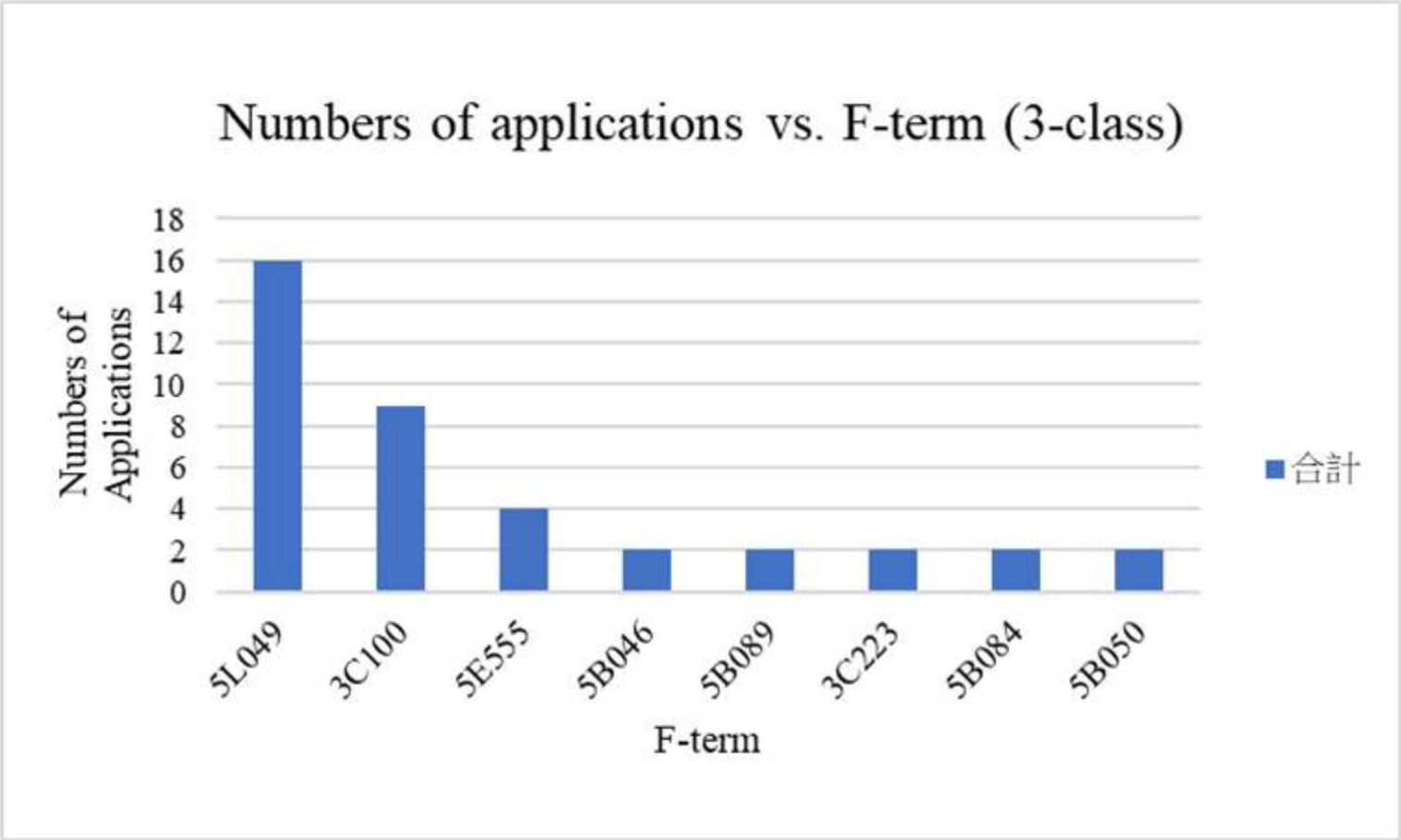
Facet: ZJC 分類下，含有FI: G06分類的專利總量，依IPC五階分類劃分



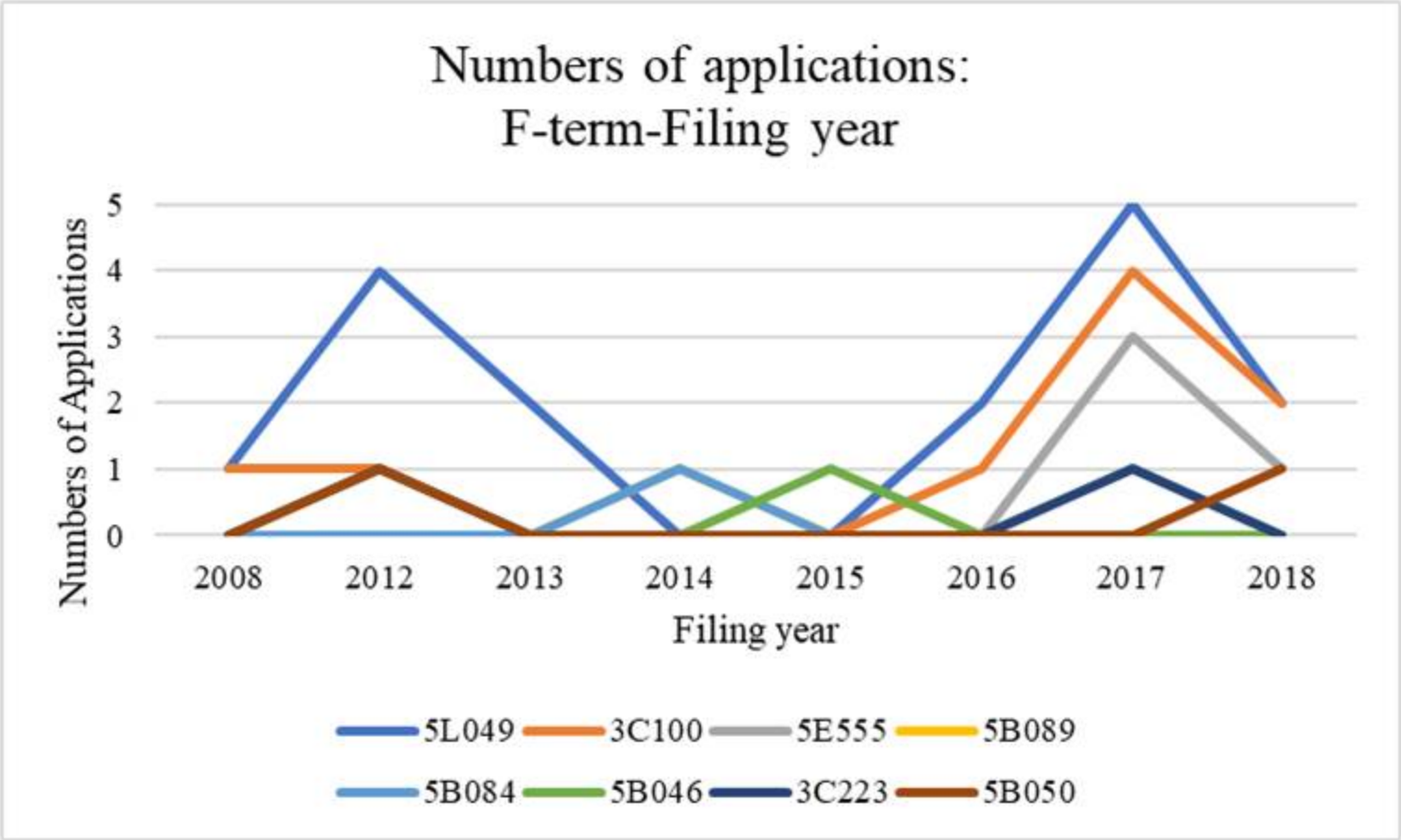
Facet: ZJC 分類下，含有FI: G06分類的專利總量，依IPC五階分類與申請年份劃分



Facet: ZJC 分類下，含有FI: G06分類的專利總量，依F-term分類劃分



Facet: ZJC 分類下，含有FI: G06分類的專利總量，依F-term與申請年份劃分



Technology and Products Classification

- Patent classification
- Industrial design classification
- Company code
- Standard industrial classification
- Classification of goods
- Product code
- Material code

Information on Companies and Patents

- Patents linked to information on companies
- Ownership timeline for all patents
- M&A information
- Standard Essential Patents (SEPs)
- Patent portfolio and patent •
- Industry codes (NACE、SIC)

User’s Group

- Intellectual property analysts and researchers
- Patent portfolio managers
- Intellectual property owners
- Economists, tax officials and intellectual property specialists

Patent Valuation

Patent Valuation

MicroLed

example

Oculus VR, LLC

- Oculus has $7M in estimated revenue annually. Oculus competes with Magic Leap, Rockwell Collins, and HTC.

- Non-store Retail
- US 8-Digit SIC: 59610000 - Catalog and mail-order houses

Xiamen Changelight Co., Ltd.

- Semiconductor and Other Electronic Component Manufacturing
- US 8-Digit SIC: 36749910 - Solid state electronic devices

Verlase Technologies LLC

- Research and Development Services
- US 8-Digit SIC: 87310202 - Commercial research laboratory

Saphlux, Inc.

- Semiconductor and Other Electronic Component Manufacturing
- US 8-Digit SIC: 36740213 - Wafers (semiconductor devices)

Rohinni LLC

- Home Furnishings Retail
- US 8-Digit SIC: 57190202 - Lighting fixtures

- 57190202 - Lighting fixtures (Primary)
- 36740103 - Light emitting diodes
- 50630402 - Lighting fittings and accessories

Qmat, Inc.

- Semiconductor and Other Electronic Component Manufacturing
- US 8-Digit SIC: 36740213 - Wafers (semiconductor devices)

Palo Alto Research Center Incorporated

- Research and Development Services
- US 8-Digit SIC: 87319902 - Medical research, commercial

Ostendo Technologies, Inc.

- Research and Development Services
- US 8-Digit SIC: 87319901 - Electronic research

Elux Inc.

- Communications Equipment Manufacturing
- US 8-Digit SIC: 36630206 - Television monitors

EPISTAR CORPORATION

- Semiconductor and Other Electronic Component Manufacturing
- US 8-Digit SIC: 36740103 - Light emitting diodes

- 36740103 - Light emitting diodes (Primary)
- 36740213 - Wafers (semiconductor devices)

Lumiode, Inc.

- Architecture and Engineering
- US 8-Digit SIC: 87119905 - Electrical or electronic engineering

- UK SIC 2007:

71129 - Other engineering activities (not including engineering design for industrial process and production or engineering related scientific and technical consulting activities) (Primary)

- UK SIC 2003:

74204 - Engineering consultative and design activities (Primary)

Optovate Ltd.

- Research and Development Services
- US 8-Digit SIC: 87310000 - Commercial physical research

- ISIC Rev 4:

7210 - Research and experimental development on natural sciences and engineering (Primary)

- NACE 2002:

7219 - Other research and experimental development on natural sciences and engineering (Primary)

AU OPTRONICS CORP.

- Semiconductor and Other Electronic Component Manufacturing
- US 8-Digit SIC: 36799908 - Liquid crystal displays (LCD)

Thanks for your attention

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