

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2019/012737

A. CLASSIFICATION OF SUBJECT MATTER

G06F 17/27(2006.01)i, G06F 17/24(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G06F 17/27; G06F 17/21; G06F 17/24; G06Q 50/20; G09B 3/00; G09B 3/06

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models: IPC as above

Japanese utility models and applications for utility models: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS (KIPO internal) & Keywords: document, sentence, correction, similarity, weight, reliability

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 10-1752679 B1 (WRITING BOX CO., LTD.) 26 September 2017 See paragraphs [0034]-[0040], [0046]; claim 1; and figure 1.	1,6
A		2-5,7-10
Y	US 2017-0177563 A1 (NATIONAL UNIVERSITY OF SINGAPORE) 22 June 2017 See paragraphs [0131]-[0134].	1,6
A	KR 10-2009-0017830 A (KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY) 19 February 2009 See paragraphs [0095]-[0109]; and figure 4.	1-10
A	KR 10-2008-0021771 A (WASEDA UNIVERSITY et al.) 07 March 2008 See claim 1; and figure 3.	1-10
PX	KR 10-1983517 B1 (KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY) 29 May 2019 See claims 1, 3-6, 8-10.	1-10



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

30 DECEMBER 2019 (30.12.2019)

Date of mailing of the international search report

06 JANUARY 2020 (06.01.2020)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex Daejeon Building 4, 189, Cheongsa-ro, Seo-gu,
Daejeon, 35208, Republic of Korea

Facsimile No. +82-42-481-8578

Authorized officer

Telephone No.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2019/012737

Patent document cited in search report	Publication date	Patent family member	Publication date
KR 10-1752679 B1	26/09/2017	None	
US 2017-0177563 A1	22/06/2017	CN 103154936 A CN 103154936 B CN 104484319 A CN 104484322 A SG 10201507822 A US 2013-0325442 A1 US 2014-0163963 A2 US 2017-0242840 A1 WO 2012-039686 A1	12/06/2013 06/01/2016 01/04/2015 01/04/2015 29/10/2015 05/12/2013 12/06/2014 24/08/2017 29/03/2012
KR 10-2009-0017830 A	19/02/2009	KR 10-0896702 B1	14/05/2009
KR 10-2008-0021771 A	07/03/2008	JP 2009-134759 A1 JP 4165898 B2 KR 10-0932141 B1 WO 2006-134759 A1	08/01/2009 15/10/2008 16/12/2009 21/12/2006
KR 10-1983517 B1	29/05/2019	None	