Most Innovative Asia-Pacific Universities

5

5.1 Introduction to Ranking

Despite of the political instability in South Korea, there are strong and solid relations between universities and industry. These relations continue to lead economic growth and technical innovation in this country. This is the conclusion reached by Reuters in the third annual classification of Asian and Pacific universities, working on achieving progress in sciences and creating new technologies [29]. Korea Advanced Institute of Science and Technology, currently known as KAIST, is ranked the first for the third year in a row. Historically speaking, KAIST is the oldest Korean university dedicated for research, sciences, and engineering. It has three branch campuses in the following cities: Daejeon, Seoul, and Busan. The university produces a large number of innovations and applies for more patents than the other 75 universities on the list. In addition, researchers all over the world cite highly the research and patents of this university.

The second ranked on the Asia-Pacific's Most Innovative Universities list was occupied by the ancient Japanese University of Tokyo, which moved from the third (in 2017) to the second position (in 2018). Pohang University of Science & Technology (POSTECH) came in the third position, achieving a progress from the fourth position in 2017. It is worth mentioning that POSTECH was established by POSCO, a South Korean steel-making company, in 1986. POSTECH is the top university in terms of the number of scientific papers, submitted by industrial researchers, and the number of citations taken from POSTECH papers and found in scientific papers submitted by the private sector.

As for the fourth position, it was occupied by Seoul National University (SNU), which was established in 1946 as the first national university. It received a support worth USD 68 million (KRW76 billion) accounting for 15% of the total funds from external industries. It is known that universities in South Korea have close relations with industry. Classified the second in 2017, this university is two positions back in the list. Meanwhile, Chinese Tsinghua University moved from the sixth (in 2017) to the fifth (in 2018).

In addition, three non-ranked Chinese universities have joined the 2018 list of Asia-Pacific that includes 75 universities increasing the number of innovative Chinese universities to 27, three of which are located in Hong Kong. Meanwhile, the number of South Korean listed universities dropped from 22 (in 2017) to 20 (in 2018). However, the number remains more than expected from a country with a population of less than 51 million people, compared to China whose population is more than 1370 million people. On the other hand, Japan maintained its 19 universities in the ranking list for the second year in a row.

Although India's population has grown more than 1280 million people, only one Indian university, the Indian Institutes of Technology (IIT), joined the list. The institute is a network of 23 universities with a central management of patents, which makes it difficult to know to which university a research paper belongs.

Countries with no ranking in the list include: Indonesia, Pakistan, and Bangladesh, the third, fourth, and fifth Asian countries in terms of population, respectively. In addition, there are no universities from either the Arabian Gulf, the Philippines, or Vietnam in the list, despite of their huge economies [29].

5.2 Table of Asia-Pacific's Most Innovative Universities

Table 5.1 shows the Asia-Pacific's Most Innovative Universities in 2018 [29]. This is the most recent rankings when this book was composed. It lists the 75 Most Innovative Universities in this region.

From Table 5.1, it is clear that the highest number of the Asia-Pacific's Most Innovative Universities in 2018 is in China. In Table 5.2, the numbers of Asia-Pacific's Most Innovative Universities in 2017 and 2018 in the different countries are given for comparison.

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Table 5.1. Asia-Pacific's most innovative universities in 2018

Rank	Institution	Country
1	Korea Advanced Institute of Science and Technology (KAIST)	South Korea
2	University of Tokyo	Japan
3	Pohang University of Science and Technology (POSTECH)	South Korea
4	Seoul National University	South Korea
5	Tsinghua University	China
6	Osaka University	Japan
7	Kyoto University	Japan
8	Sungkyunkwan University	South Korea
9	Tohoku University	Japan
10	National University of Singapore	Singapore
11	Hanyang University	South Korea
12	Peking University	China
13	Yonsei University	South Korea
14	Kyushu University	Japan
15	Korea University	South Korea
16	Tokyo Institute of Technology	Japan
17	Fudan University	China
18	Keio University	Japan
19	Shanghai Jiao Tong University	China
20	Gwangju Institute of Science and Technology	South Korea
21	Zhejiang University	China
22	Chinese University of Hong Kong	Hong Kong
23	Hokkaido University	Japan
24	Kyung Hee University	South Korea
25	Monash University	Australia
26	Nanyang Technological University	Singapore
27	Ajou University	South Korea
28	Huazhong University of Science and Technology	China
29	Hiroshima University	Japan
30	Kumamoto University	Japan
31	Nagoya University	Japan
32	Beijing University of Chemical Technology	China
33	East China University of Science and Technology	China
34	Tokyo Medical & Dental University (TMDU)	Japan
35	Tianjin University	China
36	University of Sydney	Australia
37	Ewha Womans University	South Korea
38	Hong Kong University of Science and Technology	Hong Kong
39	University of Auckland	New Zealand
40	Shinshu University	Japan
41	South China University of Technology	China
42	University of Queensland	Australia
43	Kanazawa University	Japan
44	China University of Petroleum	China
45	University of Melbourne	Australia
46	Southeast University China	China

(continued)

Table 5.1. (continued)

Rank	Institution	Country
47	University of Hong Kong	Hong Kong
48	University of Tsukuba	Japan
49	Catholic University of Korea	South Korea
50	Nanjing University	China
51	University of New South Wales Sydney	Australia
52	Chiba University	Japan
53	Xi'an Jiaotong University	China
54	Chonbuk National University	South Korea
55	Chonnam National University	South Korea
56	China University of Mining And Technology	China
57	Pusan National University	South Korea
58	Dalian University of Technology	China
59	Kayama University	Japan
60	Kyungpook National University	South Korea
61	Harbin Institute of Technology	China
62	Nankai University	China
63	Chung-Ang University	South Korea
64	Inha University	South Korea
65	Sun Yat-sen University	China
66	Sichuan University	China
67	Shandong University	China
68	University of Electronic Science and Technology of China	China
69	University of Ulsan	South Korea
70	Waseda University	Japan
71	Indian Institutes of Technology System (IIT)	India
72	Kobe University	Japan
73	Konkuk University	South Korea
74	Xiamen University	China
75	Tongji University	China

Table 5.2. Numbers of the Asia-Pacific's most innovative universities in the different countries

Countries	Numbers of the world's most innovative universities	
	2017	2018
China (Including Hong Kong)	24	27
South Korea	23	20
Japan	19	19
Australia	5	5
Singapore	2	2
New Zealand	1	1
India	1	1
Total	**75**	75