

SPECIAL ARTICLE

**International Publications of Walailak University
from 2001 to 2006 in the Science Citation Index**

Chitnarong SIRISATHITKUL¹ and Yaowarat SIRISATHITKUL²

¹*Walailak Journal of Science and Technology, Walailak University,*

²*School of Informatics, Walailak University,*

Nakhon Si Thammarat 80161, Thailand

ABSTRACT

International publications between 2001 and 2006 from the schools of Engineering and resource management, Allied health science and public health, Agricultural technology and the school of Science of Walailak University are analyzed. A total of 65 research papers were found on the Science Citation Index (SCI) expanded database available on the Institute of Scientific Information (ISI) website. The number of publication has increased from 6 papers in 2001 to 19 papers (accounting for 0.157 publications per staff member) in 2006. The majority of the published articles are the result of collaborations between Walailak University and institutions both inside and outside Thailand. Almost half of the total publications belong to the field of Chemistry. Engineering, Physics and Biology staff produce an equal number of 7 papers in second place. The highest citation per publication (5.500) belongs to the field of Resources management and the highest impact factor (4.971) was obtained in the field of Health science by publishing in Free Radical Biology and Medicine.

Keywords: Walailak University, Science Citation Index, publication indicators, journal impact factor

INTRODUCTION

The Institute of Scientific Information (ISI) has provided a database, called the Science Citation Index (SCI), of research articles in science and technology. In addition, ISI has also created databases for journals in social science (SSCI) as well as art and humanities (A&HCI). These databases are currently accessible on the internet via the ISI website [1]. Publications from international journals can be searched using fields, keywords, author names or affiliation. The information on each paper includes an abstract and times of citation.

Walailak University, a fully autonomous state university under the supervision of Thailand's Ministry of Education, was formally established in 1992. Originally consisting of 8 schools, the university began admission of undergraduate students in 1998 and graduate students in 2000. In addition to producing graduates with a high level of professional skill and moral integrity, another important mission of the university is to generate research for new knowledge and academic services. Research in the areas of science and technology has been established and some work from the school of Science, Agricultural technology, Allied health science and public health as well as the school of Engineering and resources management, has continuously been published in international journals. Since the publication indicator in SCI is universally regarded as a gauge for research progress and is used in quality assessment of academic institutions, this paper attempts to analyze publications in SCI database authored by Walailak University scholars according to their fields, journals, types of collaboration and years of publication from 2001 to 2006.

METHODS

The data was acquired from the Science Citation Index expanded database on the ISI web of knowledge [2] by searching publications during 2001 - 2006 with authors affiliated to Walailak University. Publications were sorted according to their fields, journals, types of collaboration and years of publication. The number of citations until June 2007 and the journal impact factor (JIF) for the year 2005 were also recorded. The total citations and the accumulated JIF in each field were determined by adding the number of citations and the JIF from each paper in the same field. The number of academic members from 4 schools including Engineering and resources management, Allied health science and public health, Agricultural technology and Science were also taken into account.

RESULTS AND DISCUSSION

A total of 65 publications affiliated to Walailak University were found. Classified by years of publication in **Table 1**, the number of publications has tripled over the past 6 years. Considering the increase in the number of academic staff in the 4 schools during the same interval, the ratio of publication per staff member has reached 0.15 since 2005.

Table 1 Publications of Walailak University on the SCI expanded database analyzed according to their years of publication.

	2001	2002	2003	2004	2005	2006
Number of publications	6	6	9	8	17	19
Number of staff	70	77	86	98	107	121
Publications per staff	0.086	0.078	0.105	0.092	0.159	0.157

Classified by the field of publication in **Table 2**, nearly half of the total publications belong to the field of Chemistry. This outstanding contribution from the Chemistry staff also leads to the highest total citation which accounts for a ratio of 2.938 citations per publication. Though, the highest citation per publication comes from the area-based research in Resources management. With only 2 research papers, they bring an impressive 5.500 citations per publication. Biology can be ranked in second place in terms of both total publications (7) and citations per publication (4.571). Engineering and Physics also contribute 7 publications. However, the citations per publication in the area of Physics is well below those of other fields.

Table 2 Publications of Walailak University on the SCI expanded database analyzed according to their fields and number of citations.

Field	Total publications from 2001 to 2006	Number of citations	Citations per publication
Chemistry	32	94	2.938
Biology	7	32	4.571
Physics	7	1	0.143
Mathematics	1	2	2.000
Agricultural science	5	7	1.400
Health science	4	2	0.500
Engineering	7	4	0.571
Resources management	2	11	5.500
Total	65	153	2.354

In terms of the variety of journals, this research work has appeared in 40 different journals. Some fields such as Agricultural science and Health science have never published twice in the same journal. These journals can be ranked according to their JIF. The accumulated JIF and the name of the journal with the maximum JIF in each field are shown in **Table 3**. The highest JIF is 4.971 in a paper published by Health science staff.

Table 3 Number of journals on the SCI expanded database with published research work from Walailak University. The accumulated JIF and the name of the journal with the maximum JIF in each field are also shown.

Field	Number of journal	Accumulated JIF	Name of journal with maximum JIF
Chemistry	12	43.557	Phytochemistry (2.780)
Biology	4	6.844	Journal of Biochemistry and Molecular Biology (1.548)
Physics	6	8.189	Physical Review E (2.418)
Mathematics	1	1.275	Geometry & Topology (1.275)
Agricultural science	5	5.155	Virus Research (2.562)
Health science	4	6.771	Free Radical Biology and Medicine (4.971)
Engineering	6	4.083	IEEE Transactions on Multimedia (1.597)
Resources management	2	4.150	Geochimica et Cosmochimica Acta (3.897)
Overall	40	80.024	Free Radical Biology and Medicine (4.971)

In **Table 4**, the publications are classified in terms of authorship. Reflecting the research community at the present time, 51 out of the total 65 research papers are collaborations of Walailak University members with other institutions and 33 out of the 51 collaborated papers include foreign collaboration. A few papers each year are produced exclusively by members of Walailak University and only a few papers in recent years have single authorship. Overall, 35 out of 65 papers have members of Walailak University as the first authors.

Table 4 Publications of Walailak University on the SCI expanded database analyzed according to their authorship.

Types of collaboration	2001	2002	2003	2004	2005	2006	Total
1. Single author	0	0	0	0	2	1	3
2. Within university	2	1	2	2	2	2	11
3. With institutions in Thailand							
3.1 as first author	0	0	1	0	1	3	5
3.2 as coauthor	1	0	0	3	3	5	12
4. With institutions outside Thailand							
4.1 as first author	0	3	2	2	4	5	16
4.2 as coauthor	3	2	4	1	5	3	18
Total	6	6	9	8	17	19	65

CONCLUSIONS

The number of international publications in science and technology from Walailak University has increased over the past 6 years reflecting the growth of the research and graduate programs. The recruitment of new staff and the addition of the new schools of Medicine and Pharmacy, among other things, will strengthen this trend.

DEDICATION

This paper is dedicated to Dr. Ketsiri Keuseng who passed away in the Indian Ocean Tsunami of 2004. Despite her short time span at Walailak University, she had published 5 international papers in the field of Chemistry. Her contributions are always fondly remembered.

REFERENCES

- [1] The Institute of Scientific Information, Available at: <http://www.isinet.com>, accessed June 2007.
- [2] ISI Web of Knowledge, Available at: <http://portal.isiknowledge.com/portal.cgi>, accessed June 2007.

บทคัดย่อ

ชิตณรงค์ ศิริสถิตย์กุล¹ และ เยาวเรศ ศิริสถิตย์กุล²

ผลงานตีพิมพ์ระดับนานาชาติของมหาวิทยาลัยวลัยลักษณ์ ระหว่างปี 2001 ถึง 2006 ใน

Science Citation Index

บทความนี้ได้วิเคราะห์ผลงานตีพิมพ์ระดับนานาชาติระหว่างปี ค.ศ. 2001 - 2006 จากสำนัก
วิชาวิศวกรรมศาสตร์และทรัพยากร, สหเวชศาสตร์และสาธารณสุขศาสตร์, เทคโนโลยีการเกษตร และ
สำนักวิชาวิทยาศาสตร์ มหาวิทยาลัยวลัยลักษณ์ พบว่ามีบทความวิจัยจำนวน 65 เรื่อง ที่ปรากฏอยู่ใน
ฐานข้อมูล Science Citation Index (SCI) expanded database ในเว็บไซต์ของ Institute of Scientific
Information (ISI) จำนวนบทความได้เพิ่มขึ้นจาก 6 เรื่องในปี ค.ศ. 2001 เป็น 19 เรื่อง ในปี ค.ศ. 2006
คิดเป็น 0.157 เรื่องต่อจำนวนอาจารย์ ผลงานส่วนใหญ่เป็นผลจากการร่วมงานของมหาวิทยาลัยวลัย
ลักษณ์ กับ มหาวิทยาลัยอื่นๆ ทั้งภายในและภายนอกประเทศ เมื่อจำแนกตามสาขาวิชาพบว่า ผลงาน
เกือบครึ่งหนึ่งเป็นผลงานวิจัยทางด้านเคมี รองลงมาคือด้านวิศวกรรมศาสตร์, ฟิสิกส์และชีววิทยา ซึ่งมี
ผลงานสาขาละ 7 เรื่อง ส่วนจำนวนครั้งของการอ้างอิงถึงต่อบทความสูงสุด (5.500) เป็นผลงานใน
สาขาทรัพยากร ในขณะที่วารสารที่มี impact factor สูงสุด (4.971) ที่ได้ตีพิมพ์ผลงานจากมหาวิทยาลัย
วลัยลักษณ์คือ Free Radical Biology and Medicine ในสาขาวิทยาศาสตร์สุขภาพ

¹ Walailak Journal of Science and Technology มหาวิทยาลัยวลัยลักษณ์ อำเภอท่าศาลา จังหวัดนครศรีธรรมราช 80161

² สำนักวิชาสารสนเทศศาสตร์ มหาวิทยาลัยวลัยลักษณ์ อำเภอท่าศาลา จังหวัดนครศรีธรรมราช 80161