
From the Regional Symposium to Our Own Journal Publication: For the Sound Development of Chemical Engineering in ASEAN

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Regional symposium on Chemical Engineering was first held in 1994 in Manila, Philippines. Since then, the symposium has developed quite significantly in terms of publishing papers in the said field. However, any development stagnates if scholars do not make efforts to further improve the present system. This paper analyzes such underlying problems in the academic community of different regions. Based on these problems, the *ad hoc* preparatory committee hence sees the need to propose the foundation of a Chemical Engineering Journal.

Superstructure of Research Activity

The Research activities of different countries largely depend on graduate schools. Many graduate programs in flagship universities have been established in the '70s and '80s. Policy makers, including private citizens, believe that research activities can start automatically since the graduate programs are already established. This is an illusion. Since universities are subsystems of society, they do not function well unless there exist well-built infrastructure to support them, and superstructure to lead them.

One of the most important superstructures is the academic society. It organizes a periodical symposium where researchers get together to exchange ideas. The symposium also serves as an evaluation of the researches made and of the researchers. It actually directs the researchers where to go. Different students from the undergraduate levels to the postgraduate levels develop themselves by participating in the activities (e.g., symposium, forum, seminars, etc.)

of the academe and hence give them fulfillment as researchers.

Ten years ago, there were few academic societies in the region. There was an engineering institute that covered all the engineering discipline; however, it was so broad in coverage that it did not function well as an academic society to discuss technological issues. It just functioned as a friendship society, policy maker, or a title-granting organization. Some pioneers have tried to found other academic societies but have failed to establish and carry them forward. One of the reasons for this failure is due to the small sized academic community in each country. In order to sustain the activities of the society, certain numbers of researchers are definitely necessary. There are, however, very few researchers who conduct research works in some countries. In this context, we can see the interdependence of researchers and the academe. We need researchers to have a strong academic society, and we need the academic society to develop competent or excellent

researchers. Looking at ASEAN as a whole, there were considerable numbers of researchers who were present, hence we have established a regional framework to cover the ASEAN major countries.

Prehistory of RSCE (1985-1994)

Japan Society for Promotion of Science (JSPS) has initiated a research cooperation program under the Core University framework in early '80s. Tokyo Institute of Technology has been appointed as the Japanese Core University in the field of engineering, while University of Indonesia, University of the Philippines, and King Mongkut's Institute of Technology Ladkrabang are the Core Universities in Indonesia, Philippines, and Thailand respectively. Chemical Engineering became part of the program in the mid-80s and developed active fields of implementation, and getting a lot of cooperation from the participants.

One activity of JSPS includes seminar to publicize the academic communities. This, however, is designed for closed meetings. The

participants are limited to those nominated in the Core University Program. Generous attitudes of JSPS and its counterpart agencies allow us to manage the symposium as semi-open type. We thank them for this.

We have considered the following points to be important for organizing symposia.

1. The prestige of symposia largely depends on how often or periodically they occur, and how wide their audience reach is.
2. Annual occurrence is definitely important for researchers to set up their research work plan.
3. The proceedings are attractive for the participants, because this gives satisfaction to authors and also gives merits for their promotion.

However, as long as we remain under the umbrella of JSPS, we cannot fully satisfy ourselves in view of the above stated criteria. This is because the JSPS program contains many engineering disciplines and therefore the chemical

Table 1. History of Regional Symposium on Chemical Engineering (RSCE)

Date	Host country/City Institutions	Number of presentation/ Participants	Remarks
Oct 1994	Philippine/Manila/PIChE, DLSU, UP	42/150	With a sponsorship from JSPS
Oct 1995	Thailand/Bangkok/CU	58/N.A.	Independent Organization
Oct 1996	Indonesia/Jakarta/UI	122/N.A.	With partial sponsorship of JSPS
Oct 1997	Malaysia/Johor Baru/ EIM, TUM	176/N.A.	Independent, Parallel occurrence with domestic meeting
Oct 1998	Philippine/Quezon City PIChE, DLSU, UP	97/280	Hit by economic crisis, with a Satellite JSPS meeting
Nov 1999	Thailand/Songkla ChEST, PSU	230/200	With parallel occurrence of International meeting
Dec 2000	Singapore/NSU		With parallel occurrence of International meeting
Oct 2001	Indonesia/Bandung/ITB	170*/	Tentative data
2002	Malaysia (tentatively assigned)		

*Indonesia (Host) 70, Other ASEANS 76, Japan 19, Others 5

ChEST: Chemical Engineering Society of Thailand, CU: Chulalongkorn University,
DLSU : De La Salle University, EIM: Engineering Institute of Malaysia, ITB:
Bandung Institute of Technology, NUS: National University of Singapore, PIChE :
Philippine Institute of Chemical Engineers, PSU: Prince of Songkla University,
TUM: Technical University of Malaysia, UI: University of Indonesia, UP:
University of the Philippines

engineering seminar/symposium cannot be held every year. They are more of a "one-shot-deal" type. Therefore, we are determined to step out of the umbrella, although some financial difficulties await.

Main History (1994-Present)

On the occasion of Regional Symposium on Chemical Engineering (RSCE) in 1994 (when we are still under the JSPS framework) in Manila, Philippines; we have reached an agreement that we shall organize it with our own efforts.

Therefore, the Manila Symposium was the first symposium and accordingly, we called it the first RSCE or RSCE '94. **Table 1** shows the past records of RSCE. The number of presentation increases significantly every year. Also, the symposium yielded profits that can be used for the development of Chemical Engineering in the host country. With this experience, we have become quite confident with our capabilities. Also, we are sure that the activity responded to real needs of Chemical Engineering community in the region.

Many MS and PhD students have had the opportunity to present their research studies at the symposium, which satisfy them for their own establishments, and encourage them for further research works. More importantly, the presentations partially fulfill their requirements for degree acquisitions. The symposium is functioning as an entry for young researchers to the academic communities.

Journal Publication

Any development stagnates if scholars do not make efforts to further improve the present system. Hence we, the organizing committee, have discussed the next actions for several years. We have reached a conclusion: it is time for us to publish our own journal. With seven years of experience, we have established good human network among ASEAN countries and this could help a lot in the journal publication.

However, we do realize that there might be potential problems for such an activity. Preparatory committee had discussed the matter extensively. We have done a SWOT analysis and justification of the project, approved by the preparatory committee during the workshop for the journal publication in April 2000 in Manila.

SWOT Analysis

Strengths

- Abundant sources of papers from the annual RSCE Proceedings
- Big community for potential subscribers from ASEAN/Asian countries
- Support from academe and from Industry-Academe linkage
- Synergy of existing local journal into one bigger international journal

Weaknesses

- Difficulty in managing an international journal
- Management of subscription fees in different currencies
- Cultural differences among ASEAN countries
- Discrepancy in research culture in industry and academe

Opportunities

- Networking with other Chemical Engineers from other countries
- Advancement and promotion of the chemical engineering profession
- Ownership of the journal by the ASEAN countries
- Eye opener for other fields of engineering
- Encouragement for the young scientist to publish
- Tailored to ASEAN countries

Threats

- Threat to other local/international journals
- Financial viability of publishing the journal
- Nonsupport from other organizations in terms of subscription and advertisements
- Sustainability of financial support from funding agencies

Objectives

We can justify the project of setting up an ASEAN Chemical Engineering journal. Even with the publication of many journals in the field of Chemical Engineering, these are mainly western publications whose perspective are globally influenced. Such journals, therefore, are not able to manifest an understanding of the ASEAN environment and the needs of the countries in that region. In this manner, the needs of the local industries in the region do not appear to have been

addressed by the academe because of the lack of venue for the dissemination of research output.

The objectives of the journal are to:

- Raise the standard of research in Chemical Engineering in ASEAN countries;
- Publish a refereed journal for Chemical Engineers primarily for Asian countries;
- Provide a venue for dissemination of research output and activities in Chemical Engineering and other related fields;
- Foster closer ties among chemical engineers in the ASEAN countries.

Participant's Support

One of the serious discussion points is whether the journal is a purely research journal or will also include news and review articles. Refereed research journal is the preparatory committee's priority. However, I think informative, instructive articles, and chemical industry news are also important, especially when we seek for Academe-Industry linkage. Since we do not have any informative journals in the region, we will start with a combinatory one. We can imagine the concept as a combinatory journal of Chemical Engineering Science and Chemical Engineering Progress. If we develop ourselves quickly, we will have two journals in the future, one that is research oriented and the other that is news and review oriented. Japanese journal of Chemical Engineering has such a history. When it was founded, it was a combinatory journal. As numbers of subscribers and contributors grew, it was made into two journals.

The other point of discussion is how to found the body responsible to manage the money. For the organization of RSCE, we did it on a voluntary basis. We encourage some university to host it. It was possible, because the registration fees are paid on site and was used on the same site. It becomes more difficult when a stationary running office is founded while subscribers live in other country. We must solve the problem. It might be the King's way to found the academic society linkage that can raise money and publish journals at the same time. However, we must wait for several years. Our approach is again to make a flying start. Once we start the publication, a chemical engineering society will follow afterwards, because the management of the publication facilitates the making up of domestic and regional

human-tie network. Note that journals are not necessarily published by academic societies. Chemical Engineering Science is an example. We shall take note that we have to continue our effort to make the body of the publication concrete.

The currency exchange problem is a difficult matter. We do not expect each individual subscriber to send subscription fee in a hard currency. What we are discussing is that we establish branch office in each country to distribute the journal and collect the subscription fee in local currency.

We should not be too optimistic or pessimistic. The important thing is to recognize the practical benefits. We could have strong will to tackle potential difficulties if we believe on ourselves walking on the right track at the right time. If there are true needs, there is a way.

We realize that the subscription fee could not cover all the expenses, at least for the first few years. We definitely need financial support to kick off. However, in order to convince policy makers and funding agencies, we have to show our capabilities to manage the activity. We have decided, therefore, that we publish this preparatory issue with our own available resources. With this concrete example, they could understand our purpose and capabilities.

We request all chemical engineers to support this activity. To have a journal is our benefit. We could have strong academic community in the region with this journal. As a result, we will have strong competing power against other engineering disciplines. Our successor, the chemical engineering students, could walk on well-paved road and could develop themselves.

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