

Student Program in APCChE 2019

Call for Research Proposals from Youth:

Contribution of Chemical Engineering to SDGs

The SDGs (Sustainable Development Goals) have been adopted at the United Nations Summit in 2015 with their 17 goals and 169 targets to be achieved by 2030. 18th Asian Pacific Confederation of Chemical Engineering Congress (APCChE 2019) will be held on 23-27 September 2019 with the theme: *Chemical Engineering for SDGs*. To encourage students' challenge to this initiative, the Student Program will be held on 23 September. This calls for research proposals that are not constrained by conventional practice to further applications of chemical engineering to achieve the SDGs. Experienced researchers and engineers with knowledge and skills who could help conduct proposed research, research and governmental institutions promoting technology transfer, socially responsible investors considering the environment, society, governance will be invited as audience in an interactive session. The expected result of this program is collaboration and actions in the region and beyond. Please submit a proposal by May 31, 2019.

Application Guidelines: We call for proposals from individuals and groups on Categories (A) and (B) below. We welcome joint proposals from chemical engineering and other fields.

(A) Technical research proposal to solve concrete problems

Please propose a concept to solve regionally specific issues. You may make preliminary literature surveys and interviews with stakeholders and discuss anticipated technological and economic bottlenecks and measures to solve them.

Examples: *The essential cause of the plastic waste problems and how to solve it?*

How do we balance low carbon and stable energy supply?

How will you prepare for the huge waste of mega solar to be disposed in 20 years?

How can we proceed with district cooling and air conditioning in tropical areas with low environmental impact?

Any subjects related to chemical engineering could be proposed. Please set the proposal topic freely. You may also choose one of the above examples. Please explain concretely the expertise, technology, research equipment/information, etc. needed for the execution of that proposal.

(B) Indicators to measure the impact of chemical engineering on the SDGs

It is getting more important to quantify the impact on the SDGs. Please propose new indicators to measure the impact of chemical engineering on the SDGs by refereeing to the existing indicators (eg <https://unstats.un.org/sdgs/indicators/indicators-list/>).

Proposal Format: A4 in a few pages (≤10), English, Word or PDF. We recommend an outline as follows.

1. Proposed category (A) or (B)
2. Abstract of 1 page
(to be posted on <http://apcche2019.org/>)
(you may have advisor(s) as co-proposer(s))
3. Problem to be addressed
4. SDGs targets and Indicators
5. Purpose and outlook of the proposal
6. Literature survey / interview results
7. Research question and hypothesis
8. Research method / procedures
9. Research plan
10. Partner candidates, call for collaborators, etc.
11. References

SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD



Financial Support: Financial support (up to JPY100,000 in total per group and the exemption from conference registration fees for 5 participants per group) will be granted for outstanding proposals.

Impact Presentation Prize: Based on the feedback of the organizing committee members and the audience on the presentations, some prizes will be awarded to excellent presentations.

Proposal Deadline: May 31, 2019 (extended). Details will be posted later at <http://apcche2019.org/>.

Contact Organizer: Suguru Noda (Waseda University) [noda at waseda.jp](mailto:noda@waseda.jp) (please change "at" with "@").