Saudi Arabia Section of the Combustion Institute

Strategic Plan 2022 - 2026

Background

The Saudi Arabia Section of the Combustion Institute, SASCI, is the regional chapter of the international Combustion Institute, CI, which is a learned society whose purpose is to promote and disseminate research into Combustion Science and Engineering. SASCI was established in 2011 and currently has around 280 members from within the Kingdom and the region. Since its initiation, SASCI has been the main combustion society in the Kingdom of Saudi Arabia, KSA, and has organized eleven annual meetings. These annual events aim at promoting combustion science within KSA and the region, through fostering a well-connected research community and providing a forum for young combustion researchers from academia and industry to present and discuss their research work. The meetings cover broad topic spanning a wide range of fundamental and applied combustion science and engineering.

SASCI is not an incorporated entity, and its activities are mostly organized and financially supported by KAUST and Saudi Aramco, with modest participation and contributions from other research and educational institutions within the Kingdom. It is desirable to transform SASCI into an incorporate entity in KSA in order to help achieve its mission and better serve its membership and society.

The field of combustion has been under intense scrutiny as governments, corporates and society look for ways to manage the impact of carbon emission and move into a more sustainable future based on circular carbon economy, CCE, principles. The Saudi Arabia government has adopted CCE as an approach to its policies and has pledged to cut carbon emissions to net zero by 2060, and reduce carbon emission by 278m tons annually by 2030. While it is clear that better management of carbon circulation on earth is the solution, combustion as a process has been mistakenly blamed for global warming. Correcting this perception is essential and urgent in order to guarantee the continued research and development of combustion both in KSA and internationally. Most importantly, combustion as a process is not limited to fossil fuels and improving combustion efficiency is one of the strategies to reduce carbon emission. Combustion is also still needed to drive high temperature processes (e.g. mineral processing that is critical to many renewable energy devices) and hard to abate sectors like aviation, heavy vehicles and shipping. SASCI can play its part in ensuring the continued support for combustion research.

Educating and empowering the next generation of researchers and practitioners are part of SASCI's mission, namely, to serve the combustion community and contribute to a more sustainable future. Diversity and inclusion are important for our community and a special effort on welcoming women and persons with special needs will also contribute to a stronger SASCI. Finally, finding additional innovative ways to support young members of the community and to better connect them, in addition to the traditional annual meetings, will also be desirable, for example by taking advantage of the new available tools to communicate.

Strategic Plan

- Work towards registering SASCI as an incorporated independent entity;
- Proactively advance the discipline of combustion through a targeted communication strategy to inform members, to educate decision makers and the public about the need for combustion research and development as part of the sustainability drive into the future;

- Work to increase the participation of researchers from other KSA universities and institutes, in SASCI activities;
- Strengthen the knowledge exchange among the combustion community in KSA and the region, through targeted technical workshops, courses and seminars;
- Increase collaboration between academia, private sector, and government entities to help Saudi Arabia achieve its 2060 net-zero carbon goal;
- Promote inclusion and diversity in the combustion community in KSA and the region;
- Increase our involvement in the international combustion institute by electing a board member from our section and increase our participation in CI activities.