

Message from the Vice-Chancellor

The University is pleased to note the sustenance of the effort initiated in showcasing the undergraduate research with a symposium ‘CPE 2019’ last year and ‘ChemECon 2020’ this year. More importantly, the theme ‘Solutions Worth Spreading’ which is the platform built for undergraduates to reveal their potential in SOLVING INDUSTRY-RELATED PROBLEMS as well as RESEARCH – PROBLEMS through students’ INNOVATIVE ideas.



The above is the assurance that the Department of Chemical and Process Engineering is focusing in producing nationally relevant world class research carried out with a view to contribute to national development, which is one of the broader objectives of organizing research symposia by the University of Moratuwa.

While greatly appreciating and acknowledging the guidance given by research supervisors in carrying out the research projects and organizing this research symposium, felicitations are extended for a successful symposium.

Prof. K. Kapila C. K. Perera

Vice-Chancellor

University of Moratuwa

Message from Dean, Faculty of Engineering

I am pleased to be able to congratulate the Department of Chemical and Process Engineering on the occasion of ChemECon 2020—the undergraduate research conference organized by the Department for this year. This event provides an opportunity for the undergraduate students of the Department to showcase the outcome of their research studies and industrial projects to a wider audience of both academia and industry. It's an occasion where the budding engineers of the Department who are readying to take up the daunting challenges of a practicing chemical engineer in the industry could meet up and receive valuable feedback from senior engineers and experts from the trade.



The theme of the year “Solutions Worth Spreading” fittingly highlights the expectations of the organisers of the event. The undergraduates of Chemical & Process Engineering are capable and ready to face the challenges of the industry and come up with innovative solutions that are worth giving attention to. Further the students could make this a valuable opening to hone their abilities in presenting research outcomes including scientific paper writing.

Encouraging research culture among its students is one of the key objectives of the undergraduate programme of the Faculty of Engineering at University of Moratuwa. Our Faculty recognises that research skills, rather than being limited to postgraduate students, serve to enhance critical thinking and innovativeness of its undergraduates too. This conference will hence add value to the already highly acclaimed degree of engineering earned by the undergraduate students of the Faculty.

I wish all the very best to the Chemical and Process Engineering Department for the success of today's programme. I do hope that today's events will have lasting benefits to catalyse the national development in the area of Chemical and Process engineering.

Prof. N. Wickramarachchi
Dean, Faculty of Engineering,
University of Moratuwa

Message from the Head of the Department of Chemical and Process Engineering

The Department of Chemical & Process Engineering (DCPE) together with the Chemical Engineering Students' Society (ChESS) has been organizing the Solutions worth spreading, ChemECon 2020, for the first time in this year. During the last few years, DCPE had organized the COMPASS, national chemical engineering conference. ChemECon is the new initiative of the DCPE and its main objective is to showcase student's talents while addressing the nationally important topics related to the chemical & process engineering field.



Chemical & Process Engineering is one of the key engineering fields essential in the sustainable development of the industry. The graduates who were produced by the department play a vital role in the industrial development process. Their creative and innovative findings are very important to find solutions to the current industry problems and elevate the industry to higher levels.

In ChemECon 2020 conference, fourteen groups of students present papers that are related to their novel findings in the final year research projects and six groups of students present papers that are related to their creative work carried out during the industrial training. The papers are related to two main themes of the conference, "Product & Process Optimizations" and "Sustainable Technologies & Environmental Remediation".

The conference also enhances the relationship between University and the industry and I would like to express my sincere gratitude for all the participants from the industry including the resource persons. I would like to congratulate all the presenters and hope they will continue their good work on finding innovative solutions to the burning problems in our society.

Finally, I would like to appreciate all the staff members and the students in the department who have dedicated their valuable time to organize the ChemECon 2020 successfully.

Prof. Shantha Walpalage

Head of the Department

Department of Chemical & Process Engineering

University of Moratuwa

Message from the Programme Chairperson

I am pleased to write a message for ChemECon 2020 organized by the Department of Chemical and Process engineering, University of Moratuwa. Main theme for this year event is solutions worth spreading. With the success of the first undergraduate research symposium held in 2019, Scope of the conference was broadened by giving opportunity for students to present outcome of their industrial projects conducted during their training period. This new feature enables students to present their capability in solving industrial problems by applying process engineering fundamentals and engineering techniques they learnt during their degree programme.



This year programme is in line with two parallel sessions i.e. Product and Process Optimization and Sustainable Technologies and Environmental Remediation. At present, industries seek graduates not only equipped with engineering skills, soft skills such as communication, presentation, attitude and team work are essential ingredients. Some of the local process industries are yet to realize potential of our graduates and economic benefits that they can gain via process optimization. Undergraduate Research project has been evolving over past years and department had adopted strategies to improve quality of research programme. Research studies to be presented at this symposium have been selected following peer reviewing process. Industrial projects were also evaluated by selection committee. Some of the industrial projects have already been commended by the authorities of relevant industries. I was informed by the organizing committee that the leading local process industries had already confirmed their active participation and their generous sponsorships immensely help to organize the event. To make this event reality, particularly a team of undergraduate students worked so hard and their effort is commendable. I take this opportunity to thank all staff members who attended for peer reviewing of extended abstracts.

This is a team effort and without support of head of the department and research supervisors this would not have been a reality. With the short notice, eminent academics of the fields and industrial expertise agreed to serve as members of evaluation panels and it strengthen the quality of the outcome of the event.

Prof. P.G. Rathnasiri

Programme Chairperson

ChemECon2020

Message from the Event Co-Chairperson

ChemECon 2020 is a programme that came up with a new identity by redefining the traditional research symposium theme by combining the researches and industrial projects which have been done by the undergraduates of Department of Chemical and Process Engineering of University of Moratuwa.

This programme is a collaborative effort of academic staff and the undergraduates which is the ideal platform to unveil the caliber that we are made of.

In a country which accounts for net imports we, as chemical engineers have a vital role to play from the process implementation, optimization and increasing sustainability. Here by identifying the industrial needs and by categorizing them two sessions we are hoping to bridge the gap between research and industrial requirements.

Moreover, as the best researches and industrial projects are brought to a common platform to be evaluated by industry experts and academic experts, we are hoping to provide a better justification for the work we do here.

As Chemical and Process Engineers who have the expertise and knowledge of adding value to the raw materials and living in country full of natural resources and vast development opportunities, we hope to carry forward the momentum we gain from this new venture and will explore new horizons for the betterment of the department and the country.

Mr. Charitha Nipun

Event Co - Chairperson

ChemECon 2020

Department of Chemical and Process Engineering



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