Preface

Welcome Speech from Rector of Universitas Syiah Kuala

Assalamu ’alaikum warahmatullahi wabarakaatu,

In the name of Allah, the Most Beneficent and the Most Merciful. May peace, mercy, and blessings of Allah be upon you. Sholawat and salam may everlastingly be upon our adoration, Great Prophet Muhammad SAW, who had guided and led us from darkness into the shining bright path.

Dear colleagues, professors, lecturers, researchers, ladies and gentlemen. On behalf of Universitas Syiah Kuala, I would like to express my sincere gratitude and welcome you to the 10th Annual International Conference (AIC) 2020. It is an annual conference, started in 2011 and organized by Universitas Syiah Kuala, the largest and oldest public university in Aceh. This year, the conference is conducted virtually. As usual, the conference is divided into three sub-conferences and one of them is the 10th AIC on Sciences and Engineering.

I would like to thanks to the keynote and invited speakers, namely Prof. Dr. Wouter Dewulf from The University of Antwerp, Belgium; and Prof. Hamzah Fansuri, Ph.D from Institut Teknologi Sepuluh Nopember, Indonesia. who have allocated their time to fulfil the invitation, and to share knowledge and experiences from their respective academic institutions.

There has always been a gap between peoples and communities who can make effective use of technology and those who cannot. For that matter, all academicians, researchers, and practitioners should consider humanity to make a peaceful world. With humanity, we could change to a better environment and a better life. We believe in knowledge, research, and technology for all people, minorities, people with disabilities, and helping anyone. No matter how much we can accomplish by ourselves, it is never sufficient in this world of knowledge. Therefore, this conference's focal drive is to exchange ideas, and by participating in this exchange, it is hoped that all parties who may benefit from the conference can use it in their work areas. The conference's agenda covers a wide range of exciting topics related to all theoretical and practical aspects, particularly in Sciences and Engineering.

I hope that all findings disseminated in the conference will be published in international proceedings, and all parties involved can benefit and apply the new ideas in the future. I also hope that this conference can bridge and enhance further cooperation and network among the committee, attendees, and keynote speakers in research, publication, or other future academic activities.

Finally, my deepest gratitude goes to the advisory board, organizing committee, international scientific committee, institutions, companies, and volunteers who have contributed to this seminar's success. The committee has organized a vibrant scientific program and presented a highly respected and internationally notorious speakers. Please accept our sincere apologies should some inconveniences occur before, during, or after the event.

Finally, by Allah's grace and permission, the 10th Annual International Conference Universitas Syiah Kuala 2020 is officially opened. I wish you a very productive, successful, and enjoyable conference.

Wassalamu ’alaikum warahmatullahi wabarakaatu,

Prof. Dr. Ir. Samsul Rizal, M.Eng.
Rector of Universitas Syiah Kuala
Welcome Speech from Chairperson

Assalamu’alaikum warahmatullahi wabarakatuhu,

On behalf of the organizing committees, I would like to welcome all of you to Banda Aceh, Indonesia, for the 10th Annual International Conference (AIC) 2020 on Science and Engineering (SE).

Under the theme of "Connecting the world through innovation and sustainable development", the keynote and invited speakers in this 10th AIC 2020 on SE will be Prof. Dr. Wouter Dewulf from The University of Antwerp, Belgium; and Prof. Hamzah Fansuri, Ph.D from Institut Teknologi Sepuluh Nopember, Indonesia.

The conference has received 87 full papers for oral and poster presentation and will be published on IOP Conference Series: Material and Science Engineering indexed by Scopus in the first quarter of 2021. To all members of the organizing committees, the international scientific committees, the reviewers, the editors, the moderators and the collaboration partners, we would like to thank all of them for their tremendous efforts to organize this virtual conference successfully. My sincere gratitude goes to Dr. Eng. Sugiarto for his tremendous efforts to direct the conference.

We look forward to having a successful conference, and we hope that all attendees enjoy and benefit from this conference. Also, let’s hope this Covid-19 global pandemic will be over as soon as possible so this virtual conference will be the first and the last.

Best regards,

Dr. Dewi Yunita
Chairperson
Organizing Committee

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Keynote & Invited Speakers

Prof. Dr. Wouter Dewulf
*University of Antwerp and C-MAT (Belgium)*

He is a professor at the University of Antwerp and C-MAT (Belgium) and is academic director of C-MAT. The C-MAT (Centre for Maritime & Air Transport Management) is one of the world's premier suppliers of highly specialized academic as well as practice-based education and research in transport economics, with a focus on maritime transport, air transport and transport research. His main areas of research are in the fields of air cargo, air transport strategy, Ecommerce and urban logistics. He is a visiting professor at University of Hasselt (Belgium), University of Chongqing (China) and Trisakti Institute of Transportation and Logistics (Jakarta, Indonesia).

Prof. Hamzah Fansuri, Ph.D
*Institut Teknologi Sepuluh Nopember (ITS) (Indonesia)*

Hamzah Fansuri is a Professor at the Department of Chemistry, Institut Teknologi Sepuluh Nopember (ITS) in Surabaya, Indonesia. Hamzah's research interest is in Inorganic materials, particularly Geopolymer, Zeolite, Heterogeneous Catalyst and Inorganic membranes.