WELCOME SPEECH

First of all, on behalf of the organizing committee of ICEED 2018, we would like to welcome all delegates and all participants to Binus Campus Alam Sutera, Tangerang Indonesia with a great pleasure. Being held in two days 5-6 September 2018, we proudly present the 2nd International Conference on Eco Engineering Development (ICEED) 2018 which organized by the Faculty of Engineering, Bina Nusantara University.

The big theme of ICEED 2018 is Sustainable Engineering in Architectural Design, Construction, Industry and ICT Transformation, and we would like to give our appreciation and thank you to the conference organizers, all of reviewers, as well as all valuable authors for their contribution for making the successful of the event of ICEED 2018. We also greatly acknowledge our publishing partner, IOP Publishing, for their collaborative support in publishing the conference proceedings. There are 100 manuscript papers have presented in the conference and hopefully become our contribution for the society as a role to bridge the harmony of the human wellbeing and the nature through the new advanced eco technology. In this event, we also spread eco-engineering concept to young generation through student competition consisting of posters and bursary essay. Managed by IISE Binus Chapter, IEEE student branch Binus, ICE student chapter Binus, topic of interest included green manufacturing system, natural & bio-energy, eco-building and sustainable structural engineering, green data centers, innovative eco-architecture, energy-efficient, food production system, IoT and smart technology.

Lastly, since the ICEED 2018 conference venue is held at our campus, we hope that you can explore our campus and experience the city of Tangerang. Visiting and shopping the local culinary at Tangerang may become your wonderful memories of your complimentary participation in ICEED 2018.

Dr. Ir. John Fredy Bobby Saragih, M.Si
Bina Nusantara University, Indonesia
ICEED 2018 General Chair

EXECUTIVE SUMMARY KEYNOTE 1

Prof. Teruaki Ito
Tokushima University
Theme: "Green manufacturing and its applications: Sustainable design and manufacturing for life innovation"

Sustainable Development was defined in WCED report as the development that meets the needs of the present market without compromising the ability of future generations to meet their own needs. For this development, green manufacturing plays a critical role to produce "green products" by way of renewable and clean technology systems to minimize natural resource use, to recycle/reuse what was considered waste, and to reduce emissions. The conventional approach to design and manufacturing does not comply with these sustainable issues. Therefore, new ideas for sustainable design have been proposed and implemented to comply with these issues. If we look at it from a different angle, sustainable designs not only propose a new approach to green manufacturing issues, but also encourage us to think differently toward not only product development but also even life innovation through these ideas.

This talk reviews what we could do towards the sustainable development and discusses how our life could be innovated through the sustainable design.

EXECUTIVE SUMMARY KEYNOTE 2

Prof. Tjandra Setiadi, Ph.D.
Centre for Environmental Studies
Bandung Institute of Technology, Bandung, Indonesia
Theme: Renewable energy through biological processes

Energy security is an increasingly important issue for Indonesia because Indonesia has now become a net energy-import country. Thus in the near future, energy needs for Indonesia should to be well planned and involve various available energy sources, one of which is the renewable energy.

Renewable energy can be obtained from various sources and processes, including biological processes. In this presentation, the following will be discussed: current energy situation in Indonesia; projection of energy supply in Indonesia; renewable energy examples through biological processes, such as anaerobic treatment of wastewater from different Industries, microbial fuel cells, hydrogen production and challenges in the future.

THE INTERNATIONAL CONFERENCE ON ECO ENGINEERING DEVELOPMENT 2018 (ICEED 2018)