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***INNOVATIONS FOR
SUSTAINABLE DEVELOPMENT***

**Solo | Indonesia
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Message from the Chair

On behalf of the Organizing Committee I would like to welcome you all in the International Conference on Science, Technology and Humanity 2015 (ISETH 2015). The conference is a unique conference series initiated by the Universitas Muhammadiyah Surakarta and supported by UTHM, Kanazawa University, and Charles Darwin University. It is held in Solo at the Postgraduate Conference Room, Universitas Muhammadiyah Surakarta.

This conference is a forum that brings together scientists, business people, religious leaders and educators in order to make the world a better place. The current conference topic is "Innovations for Sustainable Development", therefore, it aims at accommodating the concerns of various parties having different interests to contribute the efforts for living liveable life. The committee received 72 full papers and after review process 55 papers are accepted for oral presentation and will be published in a conference proceeding.

We gratefully acknowledge the Authors who have contributed the ideas to be presented in this conference. We are also thankful for the supports of all committee members who have been tirelessly working to make this conference happen. We thank to the keynote speakers and the universities for their significant supports and assistance.

We do hope to have this conference beneficial although we believe that some unforeseen inadequacies may still take place.

Surakarta, Dec 7, 2015

Conference General Chair,

Dr. Gunawan Ariyanto

Welcome address from Rector of Universitas Muhammadiyah Surakarta

Assalaamu'alaikum warahmatullaahi wa barakaatuhu,

Alhamdulillahirrabbi alamin washolatu wassalamu ala asyrofil anbiyai wal mursalin, amma ba'du.

First and foremost, all thanks and praise are due to Allah, the most Gracious and the most Merciful for his mercy and blessings in giving us this opportunity to gather at International Conference on Engineering, Technology and Humanity (ISETH) 2015.

As Rector of Universitas Muhammadiyah Surakarta, I would like to offer a warm welcome to all participants. It's a great pleasure and honour for our University to host this international conference. I committedly support the overarching goal and theme of the conference "Innovations for sustainable development".

UMS, which houses 12 different faculties that consist of 42 study programs of Undergraduate and Postgraduate, is currently one of leading universities internationally recognised, ranked 8th among the 9 top universities in Indonesia (QS version 2015) showing our potential in performing research and innovation in many fields - locally, nationally, and globally. However collaboration and partnership are the watchwords for the future development, through these, it is possible to make a difference to the community. I do hope this international conference will provide a national and global network to gear up the development of every aspect in science, technology and humanity.

The schedule of this conference appears to be rich in contents and subjects to science, technology and humanity in a very wide perspective, taking great care over the fundamental and application aspects and I also think that it will give helpful and valuable further developments to the community. I do expect that this conference will initiate an integration of science, technology and humanity to support a better quality of human life. Innovative idea and research outcomes from the paper presented at this conference are expected to be a significant milestone of advanced knowledge in science, technology and humanity.

So once again, it is my great pleasure to welcome you all and I wish you all have an enjoyable and fruitful conference.

Wassalaamu'alaikum warahmatullaahi wa barakaatuhu,

Prof Bambang Setiaji

Rector of Universitas Muhammadiyah Surakarta