

PREFACE

These last few years, the Indonesian government continues to improve research activities in the field of food, chemical, machinery, electrical engineering, civil, management, and information in order to optimize the resources available. This policy is related with the problems faced by the Indonesian people at this time such as import of raw materials and products and high level of unemployment and poverty. In order to overcome these problems, the development of natural resource-based industries nationwide is required.

Finding solutions for the problems described above, as suggested by many, requires multiple approaches, perspectives and disciplines. And the 3rd Bali International Seminar on Technology (BISSTECH) 2015 is expected to be a forum that effectively provides opportunity to exchange of information between the government, researchers, universities, industry and society as an effort to better understand the problems which hopefully and subsequently will lead to better answers to the problems.

For this reason, the Faculty of Industrial Technology, University of Pembangunan Nasional (UPN) "Veteran" Jawa Timur (Surabaya, Indonesia), the State Polytechnic of Bali (Bali, Indonesia) and the Engineering College National Cheng Kung University (Taiwan) has agreed to jointly organize the 3rd Bali International Seminar on Science and Technology (BISSTECH) with the theme:

**"TOWARDS FUNDAMENTAL AND APPLIED RESEARCH FOR SOCIO-
ENVIRONMENTALLY SAFE INDUSTRIAL DEVELOPMENT"**