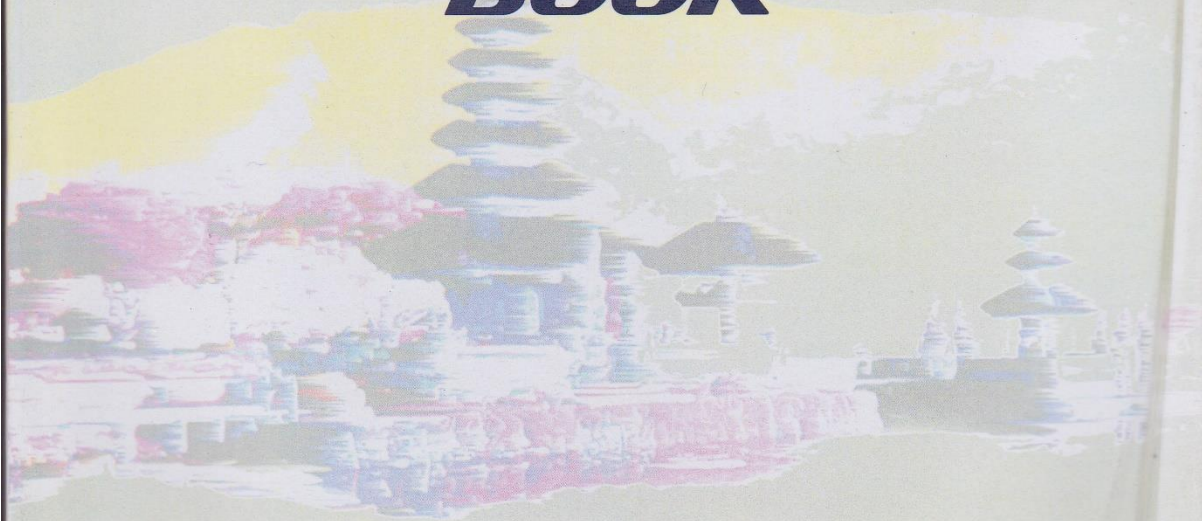




International Conference on Applied Science and Technology

*Applied Research in Green Development Through Millennial Industrialization:
Challenges in Balancing Economics Advancement*

PROGRAM BOOK



Bali Nusa Dua
CONVENTION CENTER
24-25 October 2019



International Conference on Applied Science and Technology

*Applied Research in Green Development Through Millennial Industrialization:
Challenges in Balancing Economics Advancement*

Organized by: Indonesian Polytechnic Forum



POLITEKNIK NEGERI Batam

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Welcome to the ICAST 2019, a second conference held by Indonesian Polytechnics Consortium.

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The ICAST 2019 will be held on the island of Bali, Indonesia, as a continuation of the previous ICAST conference that had been held in Manado, North Sulawesi. In this year, the conference theme is "Research in Green Development Through Industrialization: Challenges in Balancing Economics Advancement". This theme is taken by considering that half of the workforce in various industries will be made up of millennials in 2020. Polytechnics, as higher education institution that

provide skilled and professional study, must be able to prepare millennials supporting green development that focused on responsiveness to the environment, efficiency in uses of earth's limited resources, and sensitivity to the community and culture. To answer this challenge, this conference will be held in two groups of science, i.e., social science and engineering science to present the results of applied research to find a balance between economic and environmental sustainability.

Again, we welcome you to the ICAST 2019 conference. We hope you can take part and be able to enjoy the beauty of Bali, the island of thousands temple.

Warm regards,

Dr. Dra. Ni Nyoman Aryaningsih, MM
General Chair

Environmentally Friendly Tool for Smoking Skipjack Fish

Leonard Tawalujan (Manado State Polytechnic, Indonesia)

Daisy Sundah (Manado State Polytechnic, Indonesia)

Abstract : The purpose of this study is to promote the production of smoked fish in the use of green-technology process. This study has used a method of an experimental research in which to examine and to know the heat transfer occurs in the smoked-fish device from the outer space, therefore the oven and the amount of water is lost in the processed skipjack fish. Conduction Heat Transfer, Convection Heat Transfer, and Radiation have been used in analysing the technology process of this machine. The results highlighted the importance of green-technology in processing smoked fish products. This study found that a smoked fish machine has reduced air pollution and produced liquid smoke. There are 3 stages in processing smoked skipjack fish with clean technology, namely: (1) furnaces, (2) the application of the smoke stream, (3) the condenser tank. The evaporation process begins by placing fish onto shelves in the furnace. Then fuel is put into the furnace and burned. Once the fuel is burned, the supply of oxygen in the furnace is controlled, so that the smoke which usually causes air pollution can be converted into liquid smoke using a condenser