

PROCEEDINGS OF INTERNATIONAL CONFERENCE ON STATISTICS AND ANALYTICS 2019

"Learning from data to drive improvement"

Swiss–Belhotel Bogor
August 2-3, 2019

Organized by:



Department of Statistics
Faculty of Mathematics and
Natural Sciences – IPB University



Forum Pendidikan Tinggi
Statistika Indonesia



IKATAN
STATISTISI
INDONESIA



Editors:

Farit Mochamad Afendi
Kusman Sadik
Utami Dyah Syafitri

Sponsored by:

SAIFULMUJANI
research & consulting

 BANK BRI

Indekstat
Consulting & Research

**PROCEEDINGS OF
INTERNATIONAL CONFERENCE ON
STATISTICS AND ANALYTICS 2019**

Bogor, August 2-3, 2019

ISBN 978-979-19256-3-1 (PDF)

"Learning from Data to Drive Improvement"

Department of Statistics
IPB University

Proceedings of International Conference on Statistics and Analytics 2019

“Learning from Data to Drive Improvement”

Bogor, 2-3 Agustus 2019

Steering Committee:

Dr. Anang Kurnia

Prof. Dr. Khairil Anwar Notodiputro

Prof. Dr. Asep Saefuddin

Prof. Dr. Aji Hamim Wigena

Dr. Suhartono

Dr. Margo Yuwono

Organizing Committee:

The Chairman

Secretary & Treasurer

Program Chairs

Secretariat Chairs

Publication & Promotion Chairs

Proceeding & Journal Chairs

Logistics Chairs

Dr. Bagus Sartono

Yenni Angraini, M.Si

Sulistiowati

Dewi Kiswani, M.Si

Rahma Anisa, M.Si

Akbar Rizki, M.Si

Cici Suhaeni, M.Si

Itasia Dina Sulvianti, M.S

Dr. Anwar Fitrianto

Mulianto Raharjo, S.Stat

Aam Alamudin, M.Si

Ika Purmatasari

Septian Rahardiantoro, M.Si

Dr. Agus M. Soleh

Pika Silvianti, M.Si

Dr. Farit M. Afendi

Dr. Kusman Sadik

Dr. Utami Dyah Syafitri

La Ode Abdul Rahman, M.Si

Rasyid, S.E

Yuslian

Scientific Committee/Reviewer:

Prof. Dr. Shigehiko Kanaya

Prof. Dr. Don McNeil

Prof. Muhammad Arif Tiro, Ph.D

Prof. Dr. Peter Goos

Prof. Dr. Hari Wijayanto

Prof. Dr. Muhammad Nur Aidi

Prof. Dr. rer. nat. Dedi Rosadi

Prof. Dr. Sigit Nugroho

Assoc. Prof. Dr. Agus Salim

Assoc. Prof. Dr. Arief Sobirin

Assoc. Prof. Dr. Mohd Bakri Adam

Assoc. Prof. Dr. Md. Sohel Rana

Assoc. Prof. Dr. Md. Altaf-Ul-Amin

Assist. Prof. Dr. Ali Hamed Saleh Algarni

Dr. Krittiya Duangmanee

Nara Institute of Science and Technology, Japan

MacQuarie University, Australia

State University of Makassar, Indonesia

KU Leuven, Belgium

IPB University, Indonesia

IPB University, Indonesia

Universitas Gadjah Mada, Indonesia

University of Bengkulu, Indonesia

La Trobe University, Australia

Leeds University, England

Universiti Putra Malaysia, Malaysia

East West University, Bangladesh

Nara Institute of Science and Technology, Japan

King Abdulaziz University, Saudi Arabia

Prince of Songkla University, Thailand

Dr. Kalliopi Mylona
Dr. Budi Susetyo
Yudhie Andriana, PhD
Jerry D.T Purnomo, PhD
Sarini Abdullah, PhD
Dr. Henry Junus Wattimanela
Dr. Anik Djuraidah
Dr. Erfiani
Dr. Indahwati
Dr. I Made Sumertajaya
Dr. Titin Siswastining
Dr. Setia Pramana
Dr. Tarno
Dr. Alfian Futuhulhadi
Dr. Miftahudin

King's College London, England
IPB University, Indonesia
Universitas Padjadjaran, Indonesia
Sepuluh Nopember Institute of Technology, Indonesia
University of Indonesia, Indonesia
University of Pattimura, Indonesia
IPB University, Indonesia
IPB University, Indonesia
IPB University, Indonesia
IPB University, Indonesia
University of Indonesia, Indonesia
Politeknik Statistika STIS, Indonesia
Diponegoro University, Indonesia
Universitas Jember, Indonesia
Universitas Syiah Kuala, Indonesia

Technical Program Committee:

| | | |
|-----------------------|------------------------|--------------------------|
| Anne Mudya Y, M.Si | Bayutama Isnaini, M.Si | Nuramaliyah, M.Si |
| Kristiana Y, M.Si | Asep Andri Fauzi, M.Si | Asriyanti Ali, M.Si |
| M. Aiman Askari, S.Si | Ade Susanti, M.Si | Hasnita, M.Si |
| Wanda Suriyanto, S.Si | Agus Wahyuli, M.Si | Dahlia Misrika, S.Si |
| Dwi Astuti, S.Si | Aulia Rizki F, M.Si | Zikalta Putra, M.Si |
| Sarimah, M.Si | Gerry Alfa Dito, M.Si | Emeralda Hardiyani, M.Si |

Content Editors:

Dr, Farit Mochamad Afendi
Dr. Kusman Sadik
Dr. Utami Dyah Syafitri

ISBN:

978-979-19256-3-1 (PDF)

Lay-Out Editors:

| | |
|-------------------------------|--------------------------|
| Mulianto Raharjo, S.Stat | Rizqi Haryastuti, M.Si |
| Winda Chairani Mastuti, M.Si | Eko Primadi Hendri, M.Si |
| Anggita Rizky Fadilah, S.Stat | Fitri Ramadhini, M.Si |
| Isna Shofia Mubarakah, S.Si | Muhammad Hidayat, M.Si |

Publisher:

Department of Statistics
Faculty of Mathematics and Natural Sciences
IPB University

Contact:

Department of Statistics
Jalan Meranti Wing 22 Level 4
IPB University – Dramaga Campus
Email: event.stat@apps.ipb.ac.id
Website: <http://icsa.stats.id>
Phone: +62 251 8624535