Optimal Decisions for Marine Tourism

IOP Conference Series:
Materials Science and Engineering

Editors:
Altien J. Rindengan, Chriestie E. J. C. Montolulu, Nelson Nainggolan, Rinancy Tumilaar (Sam Ratulangi University), Toni Bakhtiar (IPB University)

Organized by: Faculty of Mathematics and Natural Sciences, Sam Ratulangi University
Supported by: Indonesian Operations Research Association, Monash University, IPB University, Padjadjaran University, University of Waterloo, Universitas Terbuka, Universiti Brunei Darussalam, University of Sumatra Utara, Atmajaya Catholic University, Pakuan University, Universiti Sultan Zainal Abidin
Abstract

The Indonesia Operations Research Association International Conference on Operations Research 2018, in short IORA-ICOR2018, is the third conference in the field held by Indonesian Operations Research Association (IORA). This year conference took place at Manado and Minahasa, North Sulawesi, 20-21 September 2019, hosted by Faculty of Mathematics and Natural Sciences, Universitas Sam Ratulangi. The main objectives of the conference are to provide OR/MS community an ideal platform for sharing experiences, communication and networking and to promote and disseminate the scientific field of operations research in Indonesia. The theme of this conference is Optimal Decisions for Marine Tourism.

Date and Venue

Date: 20-21 September 2018, 08.00 – 17.00
Venue: Auditorium of Universitas Sam Ratulangi
Kampus Kleak UNSRAT
Manado 95115, Indonesia

Tetempangan Hills
West Koha Village, Mandolang
Minahasa 95661, Indonesia

In the spirit to promote decisions based analytics through OR/MS, the theme of the conference is

Optimal Decisions for Marine Tourism

The primary objectives of the conference are:
1. to provide OR/MS researchers, academicians and practitioners an appropriate platform for sharing experiences, communication and networking with other experts within the nation and from around the world, and
2. to promote and disseminate the scientific field of operations research in Indonesia through the Indonesian Operations Research Association (IORA).
From the Conference Chair
Dr. Nelson Nainggolan, Sam Ratulangi University

Operation Research as well as Management Science (OR/MS) are viewed as a body of established mathematical models and techniques to solve complex management problems. It encompasses a growing number of technical areas arising in the direction and management of large systems of men, machines, materials and money in industry, business, government, defence, and other decision-making fields.

This conference can be held in collaboration of Indonesian Operations Research Association (IORA) and Faculty of Mathematics and Natural Sciences, Sam Ratulangi University. The same conference had previously been held twice, initially hosted by Universitas Pakuan Bogor, and followed by Universitas Terbuka Tangerang as second host. This conference is now held at Sam Ratulangi University for the third, that why it is known as the 3rd International Conference on Operations Research (ICOR) under a main theme entitled Optimal Decisions for Marine Tourism. The point of this conference is to provide a perfect event for researchers, academics and practitioners of Operations Research, to share experience, build communication and network with experts from all over world.

Thank you!
From the President

Indonesian Operations Research Association (IORA)
Prof. Sudradjat Supian

Distinguished guests, all invited speakers, participants, ladies and gentlemen.

It is great pleasure for me on behalf of the Indonesian Operations Research Association, I would like to welcome you all at this special event of International Conference on Operations Research at the Universitas Sam Ratulangi, Manado. This event is the third event for IORA-ICOR and congratulations to the Universitas Sam Ratulangi be able to host and also thanks to the Minister of Maritime Affairs and Fisheries and Manado Provincial Governor.

The theme of the conference, *Optimal Decisions for Marine Tourism*, reflects our belief that many future challenges in our life need involvement of operations research and typical analytic operations research. Our future and our capacity to reach sustainable development goal such as ensure availability and sustainable management of water and sanitation for all; ensure access to affordable, reliable, sustainable and modern energy for all; take urgent action to combat climate change and its impacts; end poverty in all its forms everywhere; conserve and sustainably use the oceans, seas and marine resources for sustainable development; end hunger, achieve food security and improved nutrient and promote sustainable agriculture, ensure healthy lives and promote well-being for all at all ages, and other challenges require the advances the roles of operations research in collaboration with other disciplines. Operations Research is the application of scientific & mathematical methods to the study & analysis of problems involving complex systems. Analytics is defined as the scientific process of transforming data into insights for making better decisions.

Operations research is a multidiscipline therefore interaction with other fields of science is indispensable and proven to have given rise to new areas that improve the ability in decision making and techniques used are modeling.

Typically, applications of operations research in these and other areas deal with decisions involved in planning the efficient allocation of scarce resources - such as material, skilled workers, machines, money and time to achieve stated goals and objectives under conditions of uncertainty and over a span of time. Efficient allocation of resources may entail establishing policies, designing processes, or relocating assets. OR analysts solve such management decision problems with an array of mathematical
methodologies. Completely of the operations research field can be seen in AMS 2000 or MCS 2010.

And now, I need to clarify that IORA is a new association in Indonesia he is beginning piloted in workshops in Operations Research and Optimization modelling on June 4, 2011 in the Department of Mathematics Faculty of Mathematics and Natural Science, Universitas Padjadjaran, then be disseminated to several universities, government and industry.

IORA members came from a variety of fields, education, Researcher, government, industry, practitioners etc., in 2017 members numbered 130 members and until now IORA members numbered 240 members, and we wait for those who have become members through www.iora.or.id.

Ladies and gentlemen, we need to inform that at the current conference it will also be held the IORA board meeting.

Finally, have a nice International Conference on Operations Research. I hope there are plenty of benefits we can share and empower through this and hopefully your participations and contributions will make this conference a productive and successful one
From the Dean
Faculty of Mathematics and Natural Sciences, Sam Ratulangi University
Prof. Benny Pinontoan

Welcome to Universitas Sam Ratulangi, welcome to The 3rd International Conference on Operations Research (ICOR) organized by the Indonesian Operations Research Association (IORA) and the Faculty of Mathematics and Natural Sciences, Universitas Sam Ratulangi.

The theme this year is Optimal Decisions for Marine Tourism. This theme is based on the fact that Indonesia is a maritime country as well as tourism is targeted to be the prime mover of the country development and that Operations Research is relevant and essential knowledge to apply to these areas.

We have more than 200 participants registered, which shows a wide range of interests on this topic. Hopefully all papers can be published in the IOP Proceeding indexed in Scopus.

It is a great honor for us to organize this event. We thank IORA for appointed us and for the collaboration which I believe will be a door that open to more collaborations with more partners in the future. We get full support from and therefore we thank the Rector of Universitas Sam Ratulangi and the Governor of North Sulawesi Province.

Finally, we welcome you to Manado, for many of the participants, it's maybe still long destination, but we hope that during your stay you will enjoy and take advantage of the many sights to see in the city and also experience wonderful moments in and on Bunaken Island as well as the many natural wonders in the surrounding areas.

Pakatuan wo Pakalawiden. God bless you.
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