



ICESA
2022

**3rd International Conference On
Environmental Science And Applications
(ICESA'22)**

October 24 - 26, 2022 | Seoul, South Korea Virtual Conference

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INTRODUCTION

On behalf of the International Academy of Science, Engineering and Technology (International ASET Inc.), the organizing committee would like to welcome you to The 3rd International Conference on Environmental Science and Applications (ICESA'22).

The goal of ICESA'22 is to provide an online space for scholars from all over the world to present advances in the relevant fields and to foster a virtual environment conducive to exchanging ideas and information. This conference will also provide an ideal environment to develop new collaborations and meet experts on the fundamentals, applications, and products of the mentioned fields.

In the second meeting of this conference, one plenary speaker and one keynote speaker will share their expertise with the aim of exposing participants to a wide spectrum of applications, and to foster crosspollination of ideas and develop new research interests. In addition, approximately 9 papers will be presented from professors, students, and researchers across the world.

We thank you for your participation and contribution to The 3rd International Conference on Environmental Science and Applications (ICESA'22). We wish you a very successful and enjoyable experience.

Dr. Zhi Chen

Concordia University, Canada

Conference Chair

ICESA'22

Dr. Charles Lee

The University of Newcastle, Singapore

Conference Chair

ICESA'22

Dr. Mehrab Mehrvar

Toronto Metropolitan University (formerly Ryerson University), Canada

Conference Chair

ICESA'22

ABOUT ICESA'22

The 3rd International Conference on Environmental Science and Applications (ICESA'22) aims to become the leading virtual conference in fields related to Environmental Science and Applications. The goal of ICESA'22 is to gather scholars from all over the world to present advances in the relevant fields and to foster an environment conducive to exchanging ideas and information. This conference will also provide an ideal environment to develop new collaborations and meet experts on the fundamentals, applications, and products of the mentioned fields.

ICESA is an international conference will be held yearly. This conference focus on all aspects Environmental Science and Applications. ICESA Will be held this year as a vritual conference

ICESA is an acronym for **I**nternational **C**onference, on **E**nvironmental **S**cience and **A**pplications.

The proceedings are published in Ottawa, Canada.

All papers were peer-reviewed

The conference proceedings is published under an ISSN and ISBN number

Each paper is assigned a unique DOI number by [Crossref](#)

The conference proceedings is indexed by [Google Scholar](#)

The proceedings is permanently archived in [Portico](#) (one of the largest community-supported digital archives in the world)

 Google Scholar

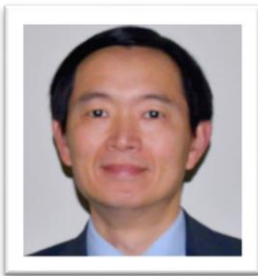
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 PORTICO

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SCIENTIFIC COMMITTEE

We would like to thank the following for accepting to act as a member of the Scientific Committee for the ICESA'22 Conference:



Dr. Zhi Chen

Concordia University,
Canada
Conference Chair



Dr. Charles Lee

The University of
Newcastle, Singapore
Conference Chair



Dr. Mehrab Mehrvar

Toronto Metropolitan University (formerly
Ryerson University), Canada
Conference Chair

Scientific Committee Members

- **Dr. Sirajuddin Ahmed**, Jamia Millia Islamia, India
- **Dr. Zunaira Asif**, Concordia University, Canada
- **Dr. Bing Chen**, Memorial University of Newfoundland, Canada
- **Dr. Ahmed Daabo**, The University of Mosul, Iraq
- **Dr. S. K. Gugulothu**, National Institute of Technology, India
- **Dr. Antonio Vicente Herrera Herrera**, Universidad de La Laguna, Spain
- **Dr. Gordon Huang**, University of Regina, Canada
- **Dr. Woo Hyung**, University of Central Florida, US

PLENARY & KEYNOTE SPEAKERS

The plenary and keynote information for The 3rd International Conference on Environmental Science and Applications (ICESA'22) is as follows:

Plenary Speaker



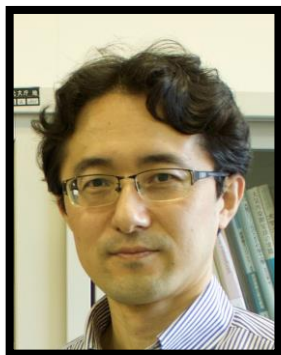
Dr. Shin-ichiro Noro
Hokkaido University, Japan

Keynote Speaker



Dr. Bae Sung Woo
National University of Singapore, Singapore

PLENARY SPEAKER



Title: Flexible Metal-Organic Frameworks (MOFs)/Porous Coordination Polymers (PCPs) with Fluorinated Anions

Dr. Shin-ichiro Noro, Hokkaido University, Japan

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2017–present: professor, Faculty of Environmental Earth Science, Hokkaido University

2010–2017: Associate professor, Research Institute for Electronic Science, Hokkaido University

2004–2010: Assistant professor, Research Institute for Electronic Science, Hokkaido University

2003–2004: Special Postdoctoral Researcher, RIKEN 2003: Ph.D., Kyoto University

KEYNOTE SPEAKER



Title: Multi-Omics Approach on the Ecotoxicological Assessment of Microplastics
Dr. Bae Sung Woo, University Malaysia Pahang , Malaysia

[View Abstract](#)

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Dr. Sungwoo Bae is an assistant professor in the Department of Civil and Environmental Engineering at the National University of Singapore (NUS). Before joining t NUS, he was a postdoctoral researcher in the Department of Civil, Architectural, and Environmental Engineering at The University of Texas at Austin. Dr. Bae received his Ph.D. (Major: Environmental Engineering, Minor: Microbiology) from the University of California, Davis in 2010. Dr. Bae has studied the application of molecular biology in environmental science and gained skills in ecotoxicology through his research. His previous studies of ecotoxicogenomic and metabolomic analysis of zebrafish embryos exposed to triclosan have provided underlying information on triclosan’s toxicity at the molecular level in the aquatic ecosystem. He has expertise in molecular biology and extensive research experiences in the application of molecular biological techniques (e.g., PCR, qPCR, RT-qPCR, Next-generation sequencing, and bioinformatics) to aquatic toxicology. Particularly, Dr. Bae is interested in the multi-omics approach, including metabolomics, transcriptomics, gut microbiomes, and its role in system biology to explore complex biological networks or systems and understand the dynamics of the genome, transcriptome, and metabolome in engineered and natural environments.

LIST OF PAPERS

The following papers were presented at the 3rd International Conference on Environmental Science and Applications (ICESA'22):

Environmental Sustainability, Development and Protection

Characteristics of Winds and Evaluation of Typhoon Wind Reduction by Pandanus Trees on Saint Martin's Island, Bangladesh

Authors: Shakila Kayum, Tomoko Minagawa

A Feasibility Study Of a Net Zero Energy HDB House in Singapore

Authors: Wen Da Tan, Yit Yan Koh, Chiang Liang Kok

Foresting The Urban Environment Through Living Walls Autonomously Maintained By Symbiotic Autonomous Systems

Authors: Kenichi Kato, Chiang Liang Kok, Yit Yan Koh, Liter Siek

The Impact of Changes in Climate-friendly Behaviour, Climate Change Concern and Personal Responsibility on Heating/cooling Activities GHG Emissions in EU Households

Authors: Miglė Jakučionytė-Skodienė, Genovaitė Liobikienė

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LIST OF PAPERS

The following papers were presented at the 3rd International Conference on Environmental Science and Applications (ICESA'22):

Air and Water Pollution and Treatment

Development of Air Filter by Porous Glass Filter Coated With Nano Titanium Dioxide

Authors: Patcharamai Huajaipet, Wan Wiriya

UV/Persulfate and UV/VUV/Persulfate Methods for Removal Trimethoprim from Waters - Special Attention to the Effect of Matrix Components

Authors: Tünde Alapi, Luca Farkas, Adrienn Szirmai

Investigation on the Concentrations of PM2.5 in Expressway Tunnels

Authors: Hyejin Kang

Pollution and Health Issues

Atmospheric Total Suspended Particle-bound Organophosphate Esters from an Industrial Area

Authors: Nicholas Cheruiyot, Guo-Ping Chang-Chien, Chien-Er Huang, Chien-Yuan Yu

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SPONSORS

International ASET Inc. would like to thank the following sponsors for their support of ICESA'22:



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ICESA'23

The 4th International Conference on Environmental Science and Applications (ICESA'23) will be held on December 4, 2023 - December 6, 2023 | Dubai, United Arab Emirates



For inquiries and to obtain further information on the congress, please visit the [website](https://2023.esaconference.com)

You can also email info@esaconference.com or call us at:

+1-613-834-9999

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ETHICS & MALPRACTICE

At International ASET Inc., we take matters that relate to ethics in publishing very seriously. We believe that the peer-review publication process is a vital building block of academia, and its integrity must be maintained at all costs, which is why every article will be peer-reviewed by several experts in the field. Under peer-review, experts in the related fields are required to provide opinions and comments on the improvements of the submissions.

We are pleased to announce that Avestia Publishing (a publisher of International ASET Inc.) has been approved by the [Committee on Publication Ethics \(COPE\)](#). We are proud of our efforts towards abiding by the guidelines of ethics, integrity, and high standards in publishing.

Following are the ethics guidelines set by the organizers for the authors and the reviewers of the conference:

Scientific Committees

Scientific committees consisting of experts in the fields are established. The committees oversee the peer-review and publication process. To see the scientific committee members, please follow the link: [Scientific Committee](#)

Equality and Decisions

One or more reviewer, scientific committee member, or chair, (internal or external), are responsible for evaluating the relevance of the submitted manuscripts to the proceedings, technical and scientific merit, originally, and impact. These evaluations are to be carried out regardless of ethnicity, religion, gender, sexual orientation, political beliefs, and institutions. Successive to peer-review, the Chair has full authority and is solely responsible for the published content and the process thereof.

Confidentiality

Scientific committee member(s) and publishing staff may not disclose manuscripts or their content, directly or indirectly, to anyone other than individuals invited to review the manuscript (whether they accept or not), other reviewers of the same publications, and publishing staff.

Conflicts of Interest

Scientific committee member(s) and publishing staff may not utilize the contents of submitted manuscripts whether accepted or rejected, directly or indirectly for their own research purposes without prior written consent by the authors.

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Reviewers

Contribution to Decisions

In order for final decisions to be made regarding acceptance or rejection of papers, we rely on peer-review. Peer-review is the process of experts in the field reading, understanding, and objectively commenting on submitted papers. Through peer-review, scholars give back to the academic and scientific community by helping the chair(s) make decisions regarding manuscripts.

Promptness

Reviewers should promptly notify the chair(s) if they are unable or unqualified to carry out their reviewing duties. Reviewers should do their best to provide the reviews to the chair(s) as promptly as possible, and within the designated time-frame.

Acknowledgment of Source

The reviewer should notify the chair(s) if they find any similarities in the paper being reviewed and any other work that has been published previously.

Confidentiality

Reviewers must not share the contents of the manuscripts they receive for review, regardless of their decision to review or contents of the review, directly or indirectly, with anyone other than the person who has assigned the review.

Fairness

Reviewers should review manuscripts fairly and objectively, with supporting evidence or arguments, regardless of personal feelings or biases.

Conflicts of Interest:

Invited reviewers should immediately inform the chair(s) in case of a conflict of interest based on competitive, collaborative, personal, family, and other relationships with the authors or people involved in the work.

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Reporting Standards

The paper being submitted for the proceedings should be based on clear objective, discussion, and references. The findings, data, and the arguments being used in the paper should be accurate. It is author's responsibility to guarantee the authenticity of the data in the paper.

Authorship

Only persons who have significantly contributed to the work and the manuscript can be named authors on a paper. These contributions include the idea/concept, design, experiments, evaluation, analysis, drafting or revision of the manuscript, and others. Authors must all have agreed to be named as such and for the manuscript to be submitted. Anyone who has contributed based on the above, but the level of contribution is not significant, may appear in the acknowledgement section of the manuscript.

Acknowledgement of Source

Acknowledgement to other's work being used in the paper must be given at all times. Authors of the paper should give comprehensive credit where it is necessary, by citing the work, they use for supporting their own research.

Accuracy, Originality, and Plagiarism

Authors should describe their work and the results of their work accurately and in full. The level of provided accuracy and detail should be such that a reader can replicate the work independently. Inaccurate, incomplete, fraudulent, and misleading statements are considered unacceptable and unethical. Direct or indirect use of other people's work is not allowed, unless properly cited. Previous works that have influenced the current work should also be cited. Presenting someone else's work as one's own is strictly prohibited and is considered plagiarism.

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Works involving human and/or animal subjects must ensure that the work has abided by institutional guidelines, and pre-approved by required bodies. Moreover, consent must be acquired from participants, and privacy of subjects must be ensured. All of the above must be specified with clear statements in the manuscript.

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Publisher

Errata and Retractions

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This conference-proceedings is managed and operated by the International ASET (International Academy of Science, Engineering, and Technology) and Avestia Publishing (the publishing arm of ASET).

Schedule:

This conference proceeding accompanies the conference, meaning a new proceedings will be published every year for the corresponding annual conference of this series.

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