

PROCEEDINGS OF THE 10TH INTERNATIONAL CONFERENCE ON FLUID FLOW, HEAT AND MASS TRANSFER (FFHMT 2023)

June 07 - 09, 2023 | Carleton University, Ottawa, Canada

© COPYRIGHT 2023, INTERNATIONAL ASET INC. – ALL RIGHTS RESERVED. ISBN: 978-1-990800-24-5 | ISSN: 2369-3029

TABLE OF CONTENTS

Welcome Message from the Conference Chair	3
About FFHMT 2023	4
Scientific Committee	5
Keynote Speakers	7
List of Papers	11
Sponsors	20
Journal Special Issue	21
FFHMT 2024	22
Ethics & Malpractice	23
Contact Us	24

WELCOME MESSAGE FROM THE CONFERENCE CHAIR

On behalf of the International Academy of Science, Engineering and Technology (International ASET Inc.), the organizing committee would like to welcome you to the 10th International Conference of Fluid Flow, Heat and Mass Transfer (FFHMT 2023).

FFHMT 2023 is aimed to become one of the leading international annual conferences in the fields of heat, momentum, and mass transfer. This conference will provide excellent opportunities to the scientists, researchers, industrial engineers, and university students to present their research achievements and to develop new collaborations and partnerships with experts in the field.

FFHMT is a series of international conferences held yearly. These conferences focus on all aspects of fluid flow, heat and mass transfer. The 10th International Conference of Fluid Flow, Heat and Mass Transfer (FFHMT 2023) is going to be held in a hybrid format, i.e. in person as well as online.

In the tenth meeting of this conference, three keynote speakers 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 49 papers will be presented from professors, students, and researchers across the world.

We thank you for your participation and contribution to the 10th International Conference of Fluid Flow, Heat and Mass Transfer (FFHMT 2023). We wish you a very successful and enjoyable experience.

Dr. Boguslaw Kruczek

Conference Chair and Proceedings Editor FFHMT 2023

Dr. Wael H. Ahmed

Conference Co-Chair FFHMT 2023

Dr. Xianshe Feng *Conference Co-Chair and Proceedings Editor FFHMT 2023*

ABOUT FFHMT 2023

The International Conference on Fluid Flow, Heat and Mass Transfer (FFHMT) aims to become the leading annual conference in fields related to traditional and modern transport phenomena. The goal of FFHMT 2023 is to gather scholars from all over the world to present advances in the fields of transport phenomena 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.

FFHMT is a series of international conferences held yearly. These conferences focus on all aspects of fluid flow, heat and mass transfer. After successfully holding FFHMT'14 to FFHMT'22 in Canada, FFHMT 2023 is hosted in Carleton University, Ottawa - Canada as well this year. FFHMT 2023 is going to be held in a hybrid format, i.e. in person as well as online.

FFHMT is an acronym for **F**luid, **F**low, **H**eat, and **M**ass **T**ransfer.

All papers were peer-reviewed

The conference proceedings are published under an ISSN and ISBN number

Each paper is assigned a unique DOI number by Crossref

The conference proceedings are indexed by <u>Scopus</u> and <u>Google Scholar</u>

The proceedings are permanently archived in <u>Portico</u> (one of the largest community-supported digital archives in the world)



SCIENTIFIC COMMITTEE

We would like to thank the following for accepting to act as a member of the Scientific Committee for the FFHMT 2023 Conference:

Scientific Committee Chairs



Dr. Boguslaw Kruczek University of Ottawa, Canada Conference Chair



Dr. Wael H. Ahmed University of Guelp, Canada Conference Co-Chair



Dr. Xianshe Feng University of Waterloo, Canada Conference Co - Chair

Scientific Committee Members

- Dr. Chamil Abeykoon, The University of Manchester, UK
- Dr. Rayhaneh Akhavan, University of Michigan-Ann Arbor, USA
- Dr. Majid Bahrami, Simon fraser University, Canada
- Dr. Sanjeev Chandra, University of Toronto, Canada
- Dr. Jiangtao Cheng, Virginia Tech, USA
- Dr. Lixin Cheng, Sheffield Hallam University, UK
- Dr. Yan Chen, Purdue University, USA
- Dr. Yusuf Chisti, Massey University, New Zealand
- Dr. Sadegh Dabiri, Purdue University, USA
- Dr. Yulong Ding, University of Birmingham, UK
- Dr. J.M. Floryan, The University of Western Ontario, Canada
- Dr. Hui Hu, Iowa State University, USA
- Dr. Mohamed Hamed, McMaster University, Canada
- Dr. Hui Hu, Iowa State University, USA
- Dr. Yogesh Jaluria, Rutgers University, USA
- Dr. Huan-Jang Keh, National Taiwan University, Taiwan

SCIENTIFIC COMMITTEE

We would like to thank the following for accepting to act as a member of the Scientific Committee for the FFHMT 2023 Conference:

Scientific Committee Members

- Dr. Nikolai Kozlov, Institute of Continuous Media Mechanics UrB RAS, Russia
- Dr. Konstantinos Kontis, University of Glasgow, UK
- Dr. Marcello Iasiello, Università degli Studi di Napoli Federico II, Italy
- Dr. Gerardo Maria Mauro, Università degli studi del Sannio, Italy
- Dr. Marc Miscevic, Université Toulouse III Paul Sabatier, France
- Dr. Robert J. Martinuzzi, University of Calgary, Canada
- Dr. Mohammad Azizur Rahman, Texas A&M University at Qatar
- Dr. Karthik Remella, Ansys, USA
- Dr. Ziad Saghir, Ryerson University, Canada
- Dr. Ahmet Selamet, The Ohio State University, USA
- Dr. Lian Shen, University of Minnesota, USA
- Dr. Jules Thibault, University of Ottawa, Canada
- Dr. Junfeng Zhang, Laurentian University, USA

KEYNOTE SPEAKERS

The keynote information for the 10th International Conference of Fluid Flow, Heat and Mass Transfer (FFHMT 2023) is as follows:

Keynote Speakers



Dr. J.M. Floryan The University of Western Ontario London, Canada



Dr. Hui Hu Iowa State University, USA



Dr. Nader Masmoudi New York University Abu Dhabi, UAE

FFHMT 2023 KEYNOTE SPEAKER



Titles: Electrical Effects in Liquid Droplets

Dr. J.M. Floryan, The University of Western Ontario London, Canada

View Abstract

Return to Top

Dr. Floryan is currently a Professor in the Department of Mechanical and Materials Engineering. He received an M.Sc degree from the Warsaw Technical University (Poland) in 1974, PhD from Virginia Tech (USA) in 1980, and went through postdoctoral training at the Northwestern University (USA) in 1981. He specializes in fluid mechanics, with analysis and simulations as the primary methodologies. His current interests are focused on the development of flow manipulation strategies with applications across all flow regimes.

Dr. Floryan held visiting appointments at the German Aerospace Research Establishment (DLVR, Gottingen), French Aerospace Research Establishment (ONERA, Toulouse), Japanese National Aerospace Laboratory (NAL, Tokyo), National University of Singapore (Singapore), Beijing Institute of Technology (China), Stuttgart University (Germany), Darmstadt University (Germany), Technion (Israel), City University (Hong Kong), Ohio University (USA), Tokyo Metropolitan University (Japan), University of Canterbury (New Zealand). He is Fellow of the American Physical Society, American Society of Mechanical Engineers, Canadian Society for Mechanical Engineering, Canadian Aeronautics and Space Institute, Engineering Institute of Canada as well as STA Fellow (Japan), Humboldt Fellow (Germany), Japanese Society for the Promotion of Science Fellow (Japan) and Senior NATO Research Fellow (France). He is recipient of the Humboldt Research Prize in Germany.

FFHMT 2023 KEYNOTE SPEAKER



Titles: Aircraft/Aeroengine Icing Physics and Innovative Strategies for Inflight Icing Mitigation

Dr. Hui Hu, Iowa State University, USA

View Abstract

Return to Top

Dr. Hui Hu is the Martin C. Jischke Professor at Department of Aerospace Engineering, Iowa State University. He received his BS, MS and PhD degrees in Aerospace Engineering from Beijing University of Aeronautics and Astronautics (BUAA) in China, and a PhD degree in Mechanical Engineering from the University of Tokyo in Japan. His recent research interests include advanced optical/laserbased diagnostics, aircraft/aero-engine icing and anti-/de-icing technology; wind energy and wind turbine aeromechanics; Fluid-Structure Interactions (FSI) of built structures in violent windstorms (e.g., tornadoes, downbursts, and snowstorms). Dr. Hu is an ASME Fellow and AIAA Associate Fellow. He is serving as an editor of "Experimental Thermal and Fluid Science-Elsevier" and an associate editor of "ASME Journal of Fluid Engineering" and "ASME Open Journal of Engineering". Dr. Hu received several prestigious awards in recent years, including 2006 NSF-CAREER Award, 2007 Best Paper in Fluid Mechanics Award (Measurement Science and Technology, IOP Publishing), 2009 AIAA Best Paper Award in Applied Aerodynamics, 2012 Mid-Career Achievement in Research Award of Iowa State University, 2013 AIAA Best Paper Award in Ground Testing Technology, 2014 Renewable Energy Impact Award of Iowa Energy Center, and 2022 AIAA Gas Turbine Best Paper Award. Further information about Dr. Hu's technical and research activities is available background at: http://www.aere.iastate.edu/~huhui/

FFHMT 2023 KEYNOTE SPEAKER



Titles: Reversal in the Stationary Prandtl Equations <u>Dr. Nader Masmoudi, New York University Abu</u> <u>Dhabi, UAE</u>

View Abstract

Return to Top

Nader Masmoudi received his BS in Mathematics from the École Normale Supérieure Paris in 1996, his PHD from Paris Dauphine University in 1999 and his HDR in 2000. He was a CNRS researcher from 1998 till 2000. Since 2000, he is a Professor at the Courant Institute of Mathematical Sciences at New York University. He is currently spending few years at NYUAD in Abu Dhabi as an affiliated faculty where he is the director of the center Stability, Instability and weak turbulence. His research lies in the iterface between fluid mechanics, partial differential equations and dynamical system. His honors include a gold medal at the International Mathematic Olympiads in 1992, a Sloan Fellowship from 2001 to 2003, a Senior Clay Math Scholar in 2014, a chair of excellence from the Foundation Sciences Mathématiques de Paris from 2016 to 2018, a chair position from the Institut des hautes études scientifiques in Paris from 2018 to 2020. He was the recipient of the Fermat prize in 2017, of the Kuwait prize in 2019 of the King Faisal Prize in Sciences in 2022. He was elected to the the American Academy of Arts and sciences in 2021.

The following papers were presented at the 10th International Conference on Fluid Flow, Heat and Mass Transfer (FFHMT 2023).

CFD

Heat Transfer Analysis of a Crossflow Minichannel Heat Exchanger Based on Air and Liquid Flow Implementing PCM as Latent Heat Thermal Energy Storage Authors: Mahdi Momeni, Saman Jalilian, Amir Farta

Analysis of Local and Overall Volumetric Mass Transfer Coefficients in a Dual Coaxial Mixer containing a Yieldpseudoplastic Fluid Authors: Forough Sharifi, Toronto Metropolitan University, Canada

<u>CFD Modeling of Gas Dispersion in Yield-Pseudoplastic Solutions Driven by</u> <u>Coaxial Mixers: Effect of Rotating Approach</u> Authors: Paloma L. Barros, Farhad Ein-Mozaffari, Ali Lohi

Mass transfer and Shear Environment of an Aerated Coaxial Mixer Containing a Shear-thinning Fluid Authors: Ali Rahimzadeh, Farhad Ein-Mozaffari, Ali Lohi

Application of Particle Image Velocimetry (PIV) on Newtonian and Two-phase Slurry Flow through the Annulus Authors: Muhammad Usman Siddigui, Mohammad Azizur Rahman

Benchmark Of Models Commonly Used To Simulate LaserInduced Incandescence Of Soot

Authors: Romain Lemaire, Sébastien Menanteau

The Effect of Nanoparticle Aggregation on the Radiative Properties of Plasmonic Nanofluid during Light-induced Vaporization Process Authors: Yifan Zhang, Wei An, Chang Zhao, Qingchun Dong

CFD

Thermal-Hydraulic Behaviour Comparison of Two Novel Lattice Structures with Simple Cubic BCC Lattice Structure
Authors: Abhishek Dey, V. Raghavan, G. Venkatarathnam
A Numerical Study of Unsteady Natural Convection from Two-Sided Thin Horizontal Isothermal Plates
Authors: Koustav Bandyopadhyay, Patrick H. Oosthuizen, Qingguo Li
A CFD Analysis of Energy Separation of Rectangular Shape Cold Orifice Vortex Tube
Authors: Nitin Bagre, A.D. Parekh, V.K. Patel
Development and Validation of an N-Dodecane Skeletal Mechanism Using a Hybrid Reduction Method in a Jet Stirred Reactor
Authors: Anurag Dahiya, Kuang C. Lin
Viscous Dissipation Inside Electric Motors
Authors: Ahmed M. Teamah, Mohamed S. Hamed
Natural Rayleigh Benard Convection Of Bingham Fluid In Enclosure Cavity With

<u>Sinusoidal Profiles</u> Authors: Keddar Mohammed, Draoui Belkacem, Mebarki Brahim and Medale Marc

CFD

<u>Comparison of PCM Mediums for Hybrid Thermal Management of Electric</u> <u>Battery Packs</u>

Authors: Seham Shahid, Martin Agelin-Chaab

<u>Simulating the Permeation of Hazardous Chemicals through Barrier Materials</u> Authors: Alex Bicket, Vivian Lau and Jules Thibault

<u>Numerical Study Of Transverse Pitch Effect On Pressure Loss In An Inline Array</u> <u>Of Elliptical Pins</u> Authors: Justina Jaseliūnaitė, Marijus Šeporaitis

Effects of Geometrical Parameters on Thermal-Hydraulic performance of air flowing in Additively Manufacturable Heat Exchanger Authors: C. Chaitanya Kishore, V. Raghavan, G. Venkatarathnam

<u>CFD Study Of Boss Fins' Effect On Performance Of Marine Propellers</u> Authors: Akshat Verma, Mohit Kapoor, Neeraj Kumbhakarna

Polymeric Hollow Fiber Heat Exchangers for Automotive Applications Authors: Erik Bartuli, Jan Bohacek, Krystof Mraz, Jiri Hvozda

<u>Thermal Performance Assessment of Reformed Gas Combustion in O₂ Injection</u> <u>Lance</u>

Authors: Sirisha Parvathaneni, Marcelo Andrade, Dmitri Boulanov

CFD

<u>Computational Study of Taylor Bubble Drift Velocity in Inclined Multiphase Flow</u> Authors: Ibrahim Ahmed

Predictions of Dynamic property for Gas Foil Bearings Based on Multi-physics Three-dimensional Model of Computer Aided Engineering Simulations Authors: Tai Yuan Yu, Pei Jen Wang

Numerical Modelling of Off-gases during Carbonization of Carbon Fibers Authors: Min-Woo Kim, Dong Guk Ko, Gyo Woo Lee, Ik-Tae Im

Comparison of Hybrid Cooling Concepts for Electric Battery Packs Authors: Seham Shahid, Martin Agelin-Chaab

Fluid Flow & Heat Transfer

Averaged Convection In A Flat Layer At Modulated Rotation Around A Horizontal Axis

Authors: Kirill Rysin

Dynamics of a Rotating Core-Annular Flow at Inertial Fluid Oscillations Authors: Olga Vlasova, Ivan Karpunin, Nikolai Kozlov

Thermal "Vibrational" Convection in Thick Rotating Horizontal Annulus Authors: Aleksey Vjatkin, Rustam Sabirov, Victor Kozlov

Photothermal Convergence Performance of Mono and Hybrid Nanofluids in Solar Systems Authors: Roy J. Issa

Effect of Location of Rectangular Orifice on the Momentum Flow of Power-law Fluids

Authors: Anamika Maurya, Rajendra Chhabra

Applications of Water Injection Using Power Dump Flood Technology and Energy Optimization

Authors: Mohamed Abdelhady Ali Elembaby

Heat Transfer Enhancement

Numerical Shape Optimization Of A Manifold Mini-Channel For Battery Thermal Management Of Electric Vehicles

Authors: Seonwoong Byun, Sewon Lee, Hyun Ho Shin, Yongchan Kim

Numerical Study on Heating Performance Characteristics of a Heat Pump System Recovering Battery Heat for Electric Vehicles Authors: Hyejun You, Se Hyeon Ham, Yongchan Kim

Improvement in Energy Performance of a HVAC System Working with Nanofluid Authors: Marco Milanese, Marco Potenza, Claudio Grisoni, Arturo de Risi

Single Augmented Swirling and Round Jet for Improvement of Impingement Heat Transfer from a Flat Plate Authors: Premchand V, Gopakumar R, Pratikash P Panda, Pradip Dutta

Experimental, Fluid Flow & Heat Transfer

Insights for Modelling Turbulence in a Backward-Facing Step Flow in a Narrow Channel

Authors: James K. Arthur

Quenching Of Moving Aluminum Sheets In Fields Of FlatAnd Full-Jet Nozzles Authors: Stephan Ryll, Bilal Mehdi, Eckehard Specht

Hydrodynamic Profiles Of Computed Tomography-Scanned Polydispersed Beds Produced By Sieving Authors: Stylianos Kyrimis, Robert Raja, Lindsay-Marie Armstrong

Polymer Hollow Fiber Oil Cooler for a Racing Car Authors: : Filip Lang

<u>Comparison of the Compliance and Deformation Properties of PDMS and NOA</u> <u>Microfluidic Chips</u>

Authors: Tatiana Turcitu, Curtis J.K. Armstrong, Niko Lee-Yow, Andy VinhLe, Marianne Fenech

Posters Session

Hypervapotron High Heat Flux Cooling Numerical and Experimental Study Authors: Vojtěch Smolík, Miroslav Gleitz, Slavomír Entler, Pavel Zácha

<u>1D Modelling of Printed Circuit Heat Exchanger for Demo Fusion Power Plant</u> Authors: Matyáš Junek, Jan Štěpánek, Guk Chol Jun, Pavel Zácha1, Slavomír Entler

The Design of the Scaled-down Experimental Device for Molten Salts Authors: Michal Cihlář, Czech Technical University in Prague, Czech Republic

Renewable Energy

Improvement of Syngas Quality in Fixed Bed Gasifier Using CaMg(CO3)2 Catalyst Authors: Darshit S Upadhyay, Amita Chaudhary, Akshit Trada, Dhruvil Patel, Rajesh N Patel

Multiphase Flow & Heat Transfer

<u>Multiphase Flow Modelling Using Surrogate Model</u> Authors: Agata Widuch, Kari Myöhänen, Markku Nikku, Alessandro Parente, Wojciech Adamczyk

The Fluid Dynamics of Rising and Evaporating Droplet in an Immiscible Liquid Authors: Abdullah Abbas Kendoush

Experimental Investigation of Double Pipe Heat Exchangers for Cryogenic Applications Authors: Mu-An Tsai, Liang-Han Chien, Chih-Yuan Lo

Flow boiling heat transfer of R134a: Effect of heat flux and Dry-out characteristics Authors: Ernest Gyan Bediako, Petra Dancova, Anas F. A. Elbarghthi, Tomas Vit

<u>A Study on the Heat Transfer Characteristics of Semi- Flooded Type Evaporator</u> Fin Tube for Adsorption Chiller

Authors: Sehyun Noh, Van Cong Le , Huynh Tan Loc, Van Hau Duong, Chan Woo Park

Evaluating Two-Phase Flow Patterns in Airlift pumps Using Image Processing Technique

Authors: Dana Fadlalla, Wael H. Ahmed, David Weales, Medhat Moussa

Carbon Dioxide Capture Using Airlift Pumps

Authors: Alexander Doucette, Cora R. Dickie-Wilson, Shahriyar G. Holagh, Wael H. Ahmed

SPONSORS

International ASET Inc. would like to thank the following sponsors for their support of FFHMT 2023:









JOURNAL PUBLICATION

Selected articles from the coference will be published in the <u>Journal of</u> <u>Fluid Flow, Heat and Mass Transfer (JFFHMT)</u> after a secondary review process.

This journal has adopted to the open-access model, meaning all free access to the journal's articles and content with no need for subscription. This ensures larger audience and therefore higher citations.

All published papers of JFFHMT will be submitted to Google Scholar. Additionally, they will be permanently archived in Portico (one of the largest community-supported digital archives in the world) and will be assigned unique DOIs.

Please visit the following website for the respected journal: JFFHMT: <u>https://jffhmt.avestia.com</u>

FFHMT 2024

The 11th International Conference of Fluid Flow, Heat and Mass Transfer (FFHMT 2024) will be held on June, 2024 in Canada.



For inquiries and to obtain further information on the congress, please visit the <u>website</u>

You can also email info@ffhmt.com or call us at: +1-613-834-9999

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 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: <u>Scientific Committee</u>

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.

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.

Authors

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.

Data and Material

Authors are encouraged to share their data, software, or other sharable material online, provided copyright and ownership laws surrounding that particular project permit. Authors may also be asked to share such material with the chair(s), and/or reviewers, and must be willing to do so if asked.

Dual Submissions

Submitting a manuscript to more than one venue (conference, journal, etc) simultaneously is not allowed. Presenting previously published work to be considered as a new submission, without a significant new interpretation or analysis, is prohibited.

Conflicts of Interest

Authors must notify the chair(s) at the time of submission, if any factor outside the scope of the research has influenced any step of the work and manuscript writing. Examples of such factors include but are not limited to funding, grants, advisory and consultancy, stock ownership, current or past employment, and memberships, among others. All funding sources should be disclosed in the manuscript.

Animal and Human Subjects

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.

Hazardous Material

It should clearly be identified in the manuscripts if the works have involved hazardous chemicals and material, or devices that can be harmful.

Reporting of Mistakes, Errata, and Retractions

If an author identifies a major error in a published paper, he/she must immediately inform the publisher. Regardless of whether a significant error is reported by the authors of the work or other readers, authors are obligated to take the necessary steps to correct the issue. It is decided on a case-by-case basis whether an erratum will be submitted to notify future readers of the error and correction, or whether the paper will be retracted. Unethical/plagiarism issues mostly result in a retraction, while unintended mistakes will mostly result in the publication of an erratum.

Publisher

Errata and Retractions

The publisher takes the necessary steps to prevent mistakes, academic and scientific misconduct, and unethical behavior, both intended and unintended. When mistakes are reported, the publisher works with chair(s) and authors to publish an erratum clarifying the issue. In cases where the mistakes are severe and significant, the paper might be retracted. If unethical behavior, plagiarism, academic and scientific misconduct, or other such activities are proven to have taken place by an author or authors, the publisher will retract the paper.

Content and Archiving

The publisher preserves and stores all content digitally on their own servers, as well as through partnering with Portico (Digital Preservation and Electronic Archiving Service).

Copyright and Access:

The proceedings and related papers are all based on the open-access model, which means interested individuals and institutions can access the material for free.

Users are allowed to read, download, copy, distribute, print, search, or link to the full texts of the articles in this proceedings without asking prior permission from the publisher or the author. This is in accordance with the BOAI definition of open access.

Ownership and Management:

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.



For inquiries and to obtain further information on the conferences, please visit our <u>website</u> You can also email <u>info@ffhmt.com</u> or call us at:+1-613-834-9999