



# PROCEEDINGS OF THE 6TH WORLD CONGRESS ON MECHANICAL, CHEMICAL, AND MATERIAL ENGINEERING (MCM'20)

AUGUST 16 - 18, 2020 | ~~PRAGUE, CZECH REPUBLIC~~ VIRTUAL CONFERENCE

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# 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 6<sup>th</sup> World Congress on Mechanical, Chemical, and Material Engineering (MCM'20).

Due to the evolving COVID-19 outbreak and corresponding issues in border entry in European countries, the 6<sup>th</sup> World Congress on Mechanical, Chemical, and Material Engineering (MCM'20) which was supposed to be held in Prague, Czech Republic will be held **virtually** instead on **August 16 – 18, 2020**.

MCM is aimed to become one of the leading international annual congresses in the fields of mechanical, chemical, and material engineering. This congress 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.

While each conference consists of an individual and separate theme, the 4 conferences share considerable overlap, which prompted the organization of this congress. The goal of this undertaking is to bring together experts in each of the specialized fields, and at the same time allow for cross pollinations and sharing of ideas from the other closely related research areas.

We thank you for your participation and contribution to the 6<sup>th</sup> World Congress on Mechanical, Chemical, and Material Engineering (MCM'20). We wish you a very successful and enjoyable experience.

**Dr. Huihe Qiu**

*Congress Chair and Proceedings Editor*  
MCM'20

**Dr. Yuwen Zhang**

*Congress Co-Chair*  
MCM'20

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# ABOUT MCM'20

**MCM is aimed to become one of the leading international annual congresses in the fields of mechanical, chemical, and material engineering.**

This congress 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.

There are 4 conferences included in the MCM Congress:

**HTFF'20** - 7<sup>th</sup> International Conference on Heat Transfer and Fluid Flow

**ICMIE'20** - 9<sup>th</sup> International Conference on Mechanics and Industrial Engineering

**MMME'20** - 7<sup>th</sup> International Conference on Mining, Material and Metallurgical Engineering

**ICCPE'20** - 6<sup>th</sup> International Conference on Chemical and Polymer Engineering

While each conference consists of an individual and separate theme, the 4 conferences share considerable overlap, which prompted the organization of this congress. The goal of this undertaking is to bring together experts in each of the specialized fields, and at the same time allow for cross pollinations and sharing of ideas from the other closely related research areas.

**MCM** is an acronym for **M**echanical, **C**hemical and **M**aterial Engineering.

- The proceedings is published in Ottawa, Canada.
- All papers were peer-reviewed
- The congress 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 [Scopus](#) and [Google Scholar](#)
- The proceedings is permanently archived in [Portico](#) (one of the largest community-supported digital archives in the world)

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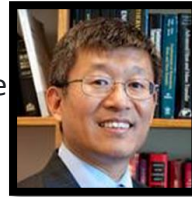
# SCIENTIFIC COMMITTEE

**We would like to thank the following for accepting to act as a member of the Scientific Committee for the MCM'20 Congress:**



**Dr. Huihe Qiu**

The Hong Kong University of Science  
& Technology, Hong Kong  
Congress Chair



**Dr. Yuwen Zhang**

University of Missouri, USA  
Congress Co-Chair

## Scientific Committee Members for HTFF'20

- **Dr. Chamil Abeykoon**, The University of Manchester, UK
- **Dr. Thomas Adams**, Rose-Hulman Institute of Technology, USA
- **Dr. Zeyad Alwahabi**, University of Adelaide, Australia
- **Dr. Jose Carlos Arcos Hernandez**, Instituto Politecnico Nacional, ESIME Azcapotzalco, Mexico
- **Dr. Jalel Azaiez**, The University of Calgary, Canada
- **Dr. Matthias Buschmann**, ILK Dresden, Germany
- **Dr. Chang Kyoung Choi**, Michigan Technological University, USA
- **Dr. Cees Van der Geld**, Eindhoven University of Technology, Netherlands
- **Dr. Frank Gerner**, University of Cincinnati, USA
- **Dr. Bella Gurevich**, Shamoon College of Engineering, Israel
- **Dr. Mohamed Hamed**, McMaster University, Canada
- **Dr. Jan Havlík**, Czech Technical University in Prague, Czech Republic
- **Dr. Hui Hu**, Iowa State University, USA
- **Dr. Iqbal Husain**, Luther College-University of Regina, Canada
- **Dr. Tassos G. Karayiannis**, Brunel University London, UK
- **Dr. Fotini Labropulu**, University of Regina, Canada
- **Dr. Yang Liu**, The Hong Kong Polytechnic University, Hong Kong
- **Dr. Marco Marengo**, University of Brighton, UK
- **Dr. Artur Miros**, Institute of Mechanised Construction & Rock Mining, Poland
- **Dr. Marc Miscevic**, Université Paul Sabatier, France
- **Dr. Yulia Plaksina**, Moscow State University, Russia

# SCIENTIFIC COMMITTEE

## Scientific Committee Members for HTFF'20

- **Dr. Subrata Roy**, University of Florida, USA
- **Dr. Ziad Saghir**, Ryerson University, Canada
- **Dr. Ahmet Selamet**, The Ohio State University, USA
- **Dr. Juan Pedro Solano**, Polytechnic University of Cartagena, Spain
- **Dr. Pavel Strizhak**, National Research Tomsk Polytechnic University, Russia
- **Dr. Aldo Tamburrino**, University of Chile, Chile
- **Dr. Liqiu Wang**, University of Hong Kong, Hong Kong
- **Dr. Dongsheng Wen**, University of Leeds, UK
- **Dr. Shwin Chung Wong**, National Tsing Hua University, Taiwan
- **Dr. Yuwen Zhang**, University of Missouri, USA

## Scientific Committee Members for ICMIE'20

- **Dr. Sondipon Adhikari**, Swansea University, UK
- **Dr. Alvaro Aguinaga**, Escuela Politécnica Nacional, Ecuador
- **Dr. Carlos Avila**, California Institute of Technology (Caltech), USA
- **Dr. Felix Chan**, The Hong Kong Polytechnic University, Hong Kong
- **Dr. Ramon Codina**, Polytechnic University of Catalonia, Spain
- **Dr. Aslan Deniz Karaoğlu**, University of Balıkesir, Turkey
- **Dr. Youngbok Kim**, Pukyong National University, South Korea
- **Dr. Satyandra Gupta**, University of Southern California, USA
- **Dr. Duc Truong Pham**, University of Birmingham, UK
- **Dr. Monica Sharma**, Malaviya National Institute of Technology, India
- **Dr. Marton Takacs**, Budapest University of Technology and Economics, Hungary
- **Dr. Delbert Tesar**, The University of Texas at Austin, USA
- **Dr. Chih-Cheng Yang**, Kao Yuan University, Taiwan
- **Dr. Dan Zhang**, York University, Canada
- **Dr. Khosrow Ebrahimi**, Minnesota State University, USA

# SCIENTIFIC COMMITTEE

## Scientific Committee Members for MMME'20

- **Dr. Zdzislaw Adamczyk**, Silesian University of Technology, Poland
- **Dr. Pura Alfonso**, Escola Politècnica Superior d'Enginyeria de Manresa (EPSEM), Spain
- **Dr. Naci Emre Altun**, Middle East Technical University, Turkey
- **Dr. Corby Anderson**, Colorado School of Mines, USA
- **Dr. Frank Cheng**, University of Calgary, Canada
- **Dr. Tung-Han Chuang**, National Taiwan University, Taiwan
- **Dr. Ioanna Giannopoulou**, National Technical University of Athens, Greece
- **Dr. Maria Sinche Gonzalez**, University of Oulu, Finland
- **Dr. Rickard Hansen**, The University of Queensland, Australia
- **Dr. Peter Hedström**, KTH Royal Institute of Technology, Sweden
- **Dr. Kim Ill-Soo**, Mokpo National University, South Korea
- **Dr. Animesh Jha**, University of Leeds, UK
- **Dr. Zi-Kui Liu**, The Pennsylvania State University, USA
- **Dr. Pavel Lukáč**, Univerzita Karlova, Czech Republic
- **Dr. Fernanda Margarido**, Instituto Superior Técnico, Portugal
- **Dr. Paul Mayrhofer**, Technische Universität Wien, Austria
- **Dr. Willie Nheta**, University of Johannesburg, South Africa
- **Dr. Katarzyna Nowińska**, Silesian University of Technology, Poland
- **Dr. Joohyun Park**, Hanyang University, South Korea
- **Dr. Andre Carlos Silva**, Universidade Federal de Goiás, Brazil
- **Dr. Hong Yong Sohn**, University of Utah, USA
- **Dr. Zhongwen Yao**, McGill University, Canada

## Scientific Committee Members for ICCPE'20

- **Dr. Shing Bor Chen**, National University of Singapore, Singapore
- **Dr. Eric S. Fraga**, University College London, UK
- **Dr. Kevin M. Van Geem**, Ghent University, Belgium
- **Dr. Hendrik Heinz**, University of Colorado-Boulder, USA
- **Dr. Liang Hong**, National University of Singapore, Singapore
- **Dr. Mohd Halim Shah Ismail**, Universiti Putra Malaysia, Malaysia
- **Dr. Yung-Chih Kuo**, National Chung Cheng University, Taiwan
- **Dr. Masami Okamoto**, Toyota Technological Institute, Japan
- **Dr. Minhua Shao**, The Hong Kong University of Science and Technology, Hong Kong
- **Dr. Dimitrios Sidiropoulos**, University of Piraeus, Greece
- **Dr. Francisco Torrens**, Universitat de València, Spain
- **Dr. Jingbo Wang**, Borealis Polyolefine GmbH, Austria

# KEYNOTE SPEAKERS

The keynote information for the 6th World Congress on Mechanical, Chemical, and Material Engineering (MCM'20) is as follows:

## Keynote Speakers



**Dr. Frank Cheng**

University of Calgary, Canada  
MMME'20 Keynote Speaker



**Dr. Ramon Codina**

Polytechnic University of  
Catalonia, Spain  
ICMIE'20 Keynote Speaker



**Dr. Cees van der Geld**

Eindhoven University of  
Technology, The Netherlands  
HTFF'20 Keynote Speaker



**Dr. Hui Hu**

Iowa State University, USA  
HTFF'20 Keynote Speaker



**Dr. Animesh Jha**

University of Leeds, UK  
MMME'20 Keynote Speaker



**Dr. Minhua Shao**

The Hong Kong University of  
Science and Technology, Hong  
Kong  
ICCPE'20 Keynote Speaker



## KEYNOTE SPEAKERS



**Titles:** Fundamental and applied aspects of nanocomposite photoanodes for photoelectrochemical cathodic protection

**Dr. Frank Cheng, University of Calgary, Canada**

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Dr. Frank Cheng is a Professor and Canada Research Chair at the University of Calgary. He is an internationally reputed researcher in Corrosion Science and Engineering of Pipelines. Dr. Cheng has authored 3 books and over 210 journal publications, with the total citations exceeding 8,100 and the H-index of 58. In particular, he published a commentary article regarding pipeline safety and environmental impact in Nature in 2016. Dr. Cheng is the recipient of numerous prestigious awards, including the Canadian Distinguished Materials Scientist Award, the Metal Chemistry Award by Canadian Metallurgy and Materials Society, H.H. Uhlig Award by NACE International, Shi Changxu Award by China Corrosion and Protection Society, Engineering Research Achievement Award by the University of Calgary, etc. Dr. Cheng is serving as the Board Director and Chair of the Technical Committee on Materials Technology of Canadian Society for Mechanical Engineering, the Chair of Task Group 521 of NACE International, etc. He previously served as the Treasurer of NACE Foundation of Canada, Country (Canada) Leader of Corrosion IMPACT Global Program, the member of U.S. National Academy of Sciences' committee on Bitumen Transportation by Pipelines, the Theme Editor of Encyclopaedia of Pipeline Engineering, etc.



**Titles:** Fluid Mechanics and Optics: the effect of turbulence in the observation of the Universe

**Dr. Ramon Codina, Polytechnic University of Catalonia, Spain**

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Dr. Ramon Codina is a Professor of Continuum Mechanics and Structural Analysis at the Technical University of Catalonia (UPC), where he began his academic career in 1990. Dr. Codina teaches courses on continuum mechanics and mechanics of structures, as well as courses on computational mechanics and functional analysis in mechanics.

## KEYNOTE SPEAKERS



**Titles:** Special boiling phenomena  
**Dr. Cees van der Geld, Eindhoven University of Technology, The Netherlands**

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Cees van der Geld is a full professor of Eindhoven University of Technology in the Netherlands, where he is also scientific director of the post-masters designers course Process and Product Design. Cees is Editor-in-Chief of Experimental Thermal and Fluid Science and President of the Assembly of World Conferences on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics. His main field of research is interfaces with mass transfer, in particular those occurring in phase transitional flows, in boiling, condensation and steam injection. Focal points have been quantification of added mass forces on deforming bubbles, theoretical and experimental determination of drag and lift forces during bubble detachment and bubble/particle motion in turbulent flows. In addition, drop drainage and dropwise condensation in compact heat exchangers were studied.



**Titles:** UAS Icing Physics and Innovative Strategies for UAS Icing Mitigation  
**Dr. Hui Hu, Iowa State University, USA**

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Dr. Hui Hu is the Martin C. Jischke Professor and Associate Dept. Chair of Aerospace Engineering at Iowa State University. His recent research interests include advanced laser diagnostics, aircraft icing physics and anti-/de-icing technology; heat transfer and thermal management of gas turbines; wind turbine aeromechanics; rotorcraft aerodynamics; bio-inspired engineering for unmanned-aerial-systems (UAS); wind engineering and Fluid-Structure Interactions (FSI) of built structures in violent wind storms (i.e., tornadoes, downbursts and snow/rain storms). Dr. Hu is an ASME Fellow and AIAA Associate Fellow. He is serving as an editor of Experimental Thermal Fluid Science, Elsevier and an associate editor of ASME Journal of Fluid Engineering.

## KEYNOTE SPEAKERS



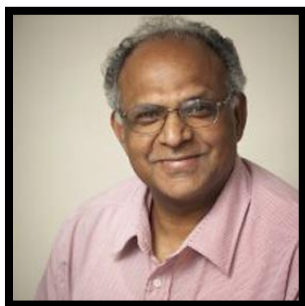
**Titles:** Electrocatalysts for the CO<sub>2</sub> Electrochemical Reduction Reaction

**Dr. Minhua Shao, The Hong Kong University of Science and Technology, Hong Kong**

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Minhua Shao is a full Professor in the Department of Chemical and Biological Engineering at the Hong Kong University of Science and Technology (HKUST). He is also the Associate Director of the HKUST Energy Institute, Director of the Sustainable Energy Engineering Program, and Director of the Master of Science in Chemical and Biomolecular Engineering. He earned BS and MS degrees in chemistry from Xiamen University, and a PhD degree in materials science and engineering from the State University of New York at Stony Brook. Dr. Shao joined UTC Power in 2007 leading the development of advanced electrocatalysts for fuel cells, and was promoted to UTC Technical Fellow and Project Manager in 2012. In 2013, he joined Ford Motor Company to conduct research on lithium-ion batteries. He then joined HKUST in 2014.



**Titles:** Extraction and Refining of Rare and Rare-earth Oxides from Complex Iron-bearing Concentrates for Applications in Energy Devices

**Dr. Animesh Jha, University of Leeds, UK**

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Dr. Animesh Jha is a full-time Professor of Applied Materials Science since August 2000 at the University of Leeds, where he has spent more than 24 years in undertaking, both, the fundamental and applied research in the fields of glass, metals and inorganic chemicals (TiO<sub>2</sub>, Rare-earth oxides, alumina, and chromium oxide, and other important oxide materials) used in the energy sector. He also devotes a significant amount of time in doing research on Biomaterials and light-based diagnostics for bone, dental and bowel diseases.

# LIST OF PAPERS

The following papers were presented at the the 6th World Congress on Mechanical, Chemical, and Material Engineering (MCM'20)

## CFD

### CFD simulation of fuel/flue gas section of the fire-tube steam boiler system

Authors: P Sai Pavan Kalyan, Amol Deshpande

### An Approach to Modelling the Manufacturing Process of Thermoset Composite Reinforced with 3D Woven

Authors: Mikhail Kiauka, Olga Pudeleva, Vladimir Sergeev, Aleksandr Tamm, Alexey Borovkov

### Method of the Finned Pipe Heat Exchanger Modelling using Porous Medium

Authors: Nikolai Efimov-Soini, Mikhail Kiauka, Aleksey Borovkov

### Experimental and Numerical Study of Capillary Driven Flow in Vane-type Tank under Normal Gravity and Microgravity Conditions

Authors: Ning Weng, Qinggong Wang, Yuying Wang, Jinyin Huang, Letian Yao, Wei Yao, Jindong Li

### Influence of Laser Beam Shaping on Melt Pool Thermocapillary Flow

Authors: Seyyed Mohammad Ali Noori Rahim Abadi, Yongcui Mi, Fredrik Sikström, Isabelle Choquet

### 2D Axisymmetric Modelling of Single Liquid Droplet Impingement at High Speeds on Thin Liquid Films in Compressible Regime

Authors: Mason Marzbali, Ali Dolatabadi

### Influence of the shroud leading edge shape on the axial-fan noise

Authors: David Kohout, Tomáš Hyhlík

### Surface Tension Model for Free-Surface Problems in SPH

Authors: Petr Jančík, Tomáš Hyhlík

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The following papers were presented at the the 6th World Congress on Mechanical, Chemical, and Material Engineering (MCM'20)

## Materials Physics

### The Effect of Heating on the Anticorrosive Self Assembled Phosphonic Acid Nanolayers

Authors: Éva Kocsisné Pfeifer, Judit Telegdi, István Gábor Gyurika

### Fabrication and thermomechanical evaluation in controlled atmospheres of SiC/Si biomorphic compounds

Authors: J.F. Gamarra-Delgado, J.J. Paredes-Paz, V.C. Bringas-Rodríguez, D.L. Mayta-Ponce, G.P. Rodríguez-Guillén<sup>1</sup> and F.A. Huamán-Mamani

### Deposition of (111)-Oriented Ag Nano-twinned Film on (111) Si Wafer

Authors: Po-Ching Wu, Pei-Ing Lee, Yu-Chang Lai, Yan-Cheng Lin, Tung-Han Chuang

## Renewable and Non Renewable Energy

### Mathematical Model Analysis for Mass and Rates of Woodchip IR Drying

Authors: Pryce M.J., Cheneler D., Martin A. and Aiouache F

### Exploring the Properties of User-defined Phase Change Materials for Thermal Energy Storage

Authors: Law Torres Sevilla, Jovana Radulovic

### Characterization of Energy Vectors, in Solar Water Heaters with PCMs for Social Interest Housing

Authors: Alvaro Aguinaga, Estefanía Orquera, Carlos Avila, Víctor Hidalgo

### Assess the use of Solar Dryer with Photonic Solar Reflectors and PCMs in Farming Products in the Andean Region

Authors: Estefanía Orquera, Álvaro Aguinaga, Carlos Ávila, Víctor Hidalgo

# LIST OF PAPERS

## Materials Processing and Handling

### Thermomechanical evaluation of geopolymeric and conventional concretes

Authors: F.A. Huamán-Mamani, J.F. Gamarra-Delgado, J.J. Paredes-Paz, V.C. Bringas-Rodríguez, D.L. Mayta-Ponce<sup>1</sup> and G.P. Rodríguez-Guillén

### Investigation of the Influence of Mineral Types on Surface Quality in the Case of Milled Granite Surface

Authors: Eszter Cserta, István Gábor Gyurika

### Creep of geopolymeric concrete obtained from mining tailings

Authors: F.A. Huamán-Mamani, J.F. Gamarra-Delgado, J.J. Paredes-Paz, V.C. Bringas-Rodríguez, D.L. Mayta-Ponce and G.P. Rodríguez-Guillén

### Non-Newtonian material behaviour in extrusion-based 3D printing: Investigation of critical process parameters

Authors: M. Brillinger, K. A. Pendl

## Applied Mechanics and Industrial Engineering

### Topology Optimization of Rotor Structure in PM Alternator

Authors: Deniz Perin, Mehmet Baki Dogru

### Application of Network Science to Extend the AHP and QFD Methods

Authors: Edina Kulcsár, István Gábor Gyurika, Tamás Csiszér

### Mobile robot models for manufacturing systems

Authors: Miklós Boleraczki, István Gábor Gyurika

### A Serious Game for Evaluating the Competencies of Environmental Consultants

Authors: Mariem Bouri, Lotfi Chraibi, Naoufal Sefiani

# LIST OF PAPERS

## Mining Fundamentals and Mineral Processing

### Study of the geomechanical behaviour of different saline typologies in the Catalan basin

Authors: Nor Sidki, Marc Bascompta, Lluís Sanmiquel

### Transmission of the topographic system and orientation from the surface to an underground mine using 2 vertical shafts. Comparison between the classical and gyroscope method

Authors: Lluís Sanmiquel, Marc Bascompta, Josep Ma. Rossell, Hernán Anticoi

### Advantages in the design of open-pit and quarries by computer mean

Authors: Lluís Sanmiquel, Marc Bascompta, Nor Sidki, Hernán Anticoi

### Developing an Integrated Cattle Farm on Ex-coal Mining Area

Authors: Tedi Yunanto, Farisatul Amanah, Doddy Herika

### Determination of Economic Liberation and Mineralogical Characteristics of Nigerian Iron Ore for Effective Processing

Authors: O. O. Ola-Omole, W. Nheta

### Optimisation of gold recovery from small scale custom mills

Authors: Willie Nheta, Mahlori Nkwinika, Moselyn Mailula

### Liberation analysis of South African Middle group seam chromite ore processed with Vertical Shaft Impactor Crusher

Authors: Mashudu Maruli, Wille Nheta

### Characterisation of South African Chromite Middle Group Seams

Authors: Mashudu Maruli, Willie Nheta

### An investigation on flotation process of low-grade Niobium/Tantalum ore

Authors: Willie Nheta, Brian Ruwizhi

### Beneficiation of South African chromite tailings using Magnetic Separation

Authors: Thabo Mokoena, Willie Nheta

# LIST OF PAPERS

## Experimental Fluid Flow and Heat Transfer

### Thermal Analysis and Climate Control of Experimental two-level Hydroponic Growth Cell

Authors: Helena Vitoshkin, Vitaly Haslavsky

### The Run Out Table in the Lab: Quenching of Fast Moving Steel Plates

Authors: C.F. Gomez, C.W.M. van der Geld, J.G.M. Kuerten, M. Bsibsi, B.P.M. van Esch

### Detachment of an Oil Droplet from Adhesive Surface Induced by Reversed Electrowetting

Authors: Qinggong Wang, Ning Weng, Wei Yao

### Flow Boiling Characteristics in a Microchannel with Various Wettability Patterned Surfaces

Authors: Hongzhao Wang, Yinchuang Yang, Huihe Qiu

### Investigation of Heat Transfer Characteristics of a Hierarchical Manifold Microchannel Heat Sink

Authors: Wenyan Xie, Xiaochen Lv, Wei Yao, and Long Li



# LIST OF PAPERS

## Conduction, Convection and Radiation Heat Transfer

### [Analytic Approaches for the Transient Temperature Distribution in a Single Cable for Smart Fuses and Ampacity Derating Calculation](#)

Authors: Anika Henke, Stephan Frei

### [Exact Analytical Solution for Two-Dimensional Heat Transfer Equation through a Packed Bed Reactor](#)

Authors: Mohammed Wassef Abdulrahman

### [The Influence of the Position of Insulation Material in Wall on Dynamic Load](#)

Authors: Haoran Ning, Xiaoli Hao, Haiqiao Wang, Fangxing Chen

## Multiphase Flow and Heat Transfer

### [Mathematical modeling of mass transfer in critical regimes of vertical two-phase flows](#)

Authors: Eugene Barsky

### [Effect of Solid Particles on Gas Holdup in a Slurry Bubble Column](#)

Authors: Mohammed W. Abdulrahman

### [CFD Simulations of Gas Holdup in a Bubble Column at High Gas Temperature of a Helium-Water System](#)

Authors: Mohammed W. Abdulrahman

### [Bubbly Cavitating Flow Through a Converging Nozzle](#)

Authors: Mohammed ZAMOUM, Rachid BOUCETTA, Mohand KASSEL

# LIST OF PAPERS

## Chemistry and Chemical Engineering

### CFD Simulation of a Shell and Tube Heat Exchanger

Authors: Mehmet Turgay Pamuk

### Control Properties of a Reactors System to Produce Magnetic Nanoparticles by Thermal Decomposition

Authors: K. J. Delgado – Carrillo, J. de J. Ibarra–Sánchez, C. Molina–Guerrero, A. H. Sámano, M.E. Cano

### Using Inhibitors for Preventions of Corrosion “Cancer” of Reinforced Concrete Constructions

Authors: Albana Jano, Valbona Hoxha, Alketa Lame, Efrosini Kokalari

### Chemical inhibitors as potential allied for CO<sub>2</sub> replacement in gas hydrates reservoirs: sodium chloride case study

Authors: Alberto Maria Gambelli, Beatrice Castellani, Mirko Filipponi, Andrea Nicolini, Federico Rossi

# SPONSORS

International ASET Inc. would like to thank the following sponsors for their support of MCM'20:



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# JOURNAL PUBLICATION

Selected articles from the congress will be published in one of the following journals after a secondary review process:

**JFFHMT** - Journal of Fluid Flow, Heat and Mass Transfer

**IJMMME** - International Journal of Mining, Material and Metallurgical Engineering

**The publication fee will be waived for papers that win the Best Paper Award. Other attendees will receive a 25% discount towards the publication fee of the journal.**

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

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

All published papers of JFFHMT will be submitted to Google Scholar, CAS, Genamics JournalSeek, Index Copernicus International, Mendeley for possible indexing. All published papers for IJMMME 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. These journals are approved by the Committee on Publication Ethics (COPE).

# 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 research purposes without prior written consent by the authors.

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# ETHICS & MALPRACTICE

## 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.

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