



**PROCEEDINGS OF THE 7TH WORLD
CONGRESS
ON MECHANICAL, CHEMICAL, AND
MATERIAL ENGINEERING (MCM'21)**

AUGUST 02 - 04, 2021 | ~~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 7th World Congress on Mechanical, Chemical, and Material Engineering (MCM'21).

Due to the evolving COVID-19 outbreak and corresponding issues in border entry in European countries, the 7th World Congress on Mechanical, Chemical, and Material Engineering (MCM'21) which was supposed to be held in Prague, Czech Republic will be held **virtually** instead on **August 02 – 04, 2021**.

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 7th World Congress on Mechanical, Chemical, and Material Engineering (MCM'21). We wish you a very successful and enjoyable experience.

Dr. Huihe Qiu

Congress Chair and Proceedings Editor
MCM'21

Dr. Yuwen Zhang

Congress Co-Chair
MCM'21

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ABOUT MCM'21

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'21 - 7th International Conference on Heat Transfer and Fluid Flow

ICMIE'21 - 9th International Conference on Mechanics and Industrial Engineering

MMME'21 - 7th International Conference on Mining, Material and Metallurgical Engineering

ICCPPE'21 - 7th 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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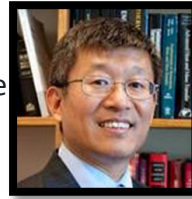
SCIENTIFIC COMMITTEE

We would like to thank the following for accepting to act as a member of the Scientific Committee for the MCM'21 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'21

- **Dr. Chamil Abeykoon**, The University of Manchester, UK
- **Dr. Zeyad Alwahabi**, University of Adelaide, Australia
- **Dr. Jalel Azaiez**, The University of Calgary, Canada
- **Dr. Matthias Buschmann**, ILK Dresden, Germany
- **Dr. Chang Kyoung Choi**, Michigan Technological University, USA
- **Dr. Yulong Ding**, University of Birmingham, UK
- **Dr. Frank Gerner**, University of Cincinnati, USA
- **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. Christos Markides**, Imperial College, UK
- **Dr. Marc Miscevic**, Université Paul Sabatier, France
- **Dr. Krishnaswamy Nandakumar**, Louisiana State University, Baton Rouge, USA
- **Dr. Perumal Nithiarasu**, University of Wales, UK
- **Dr. Pamela Marie Norris**, University of Virginia, USA
- **Dr. Yulia Plaksina**, Moscow State University, Russia
- **Dr. Ziad Saghier**, Ryerson University, Canada
- **Dr. Ahmet Selamet**, The Ohio State University, USA
- **Dr. Liqiu Wang**, University of Hong Kong, Hong Kong
- **Dr. Dongsheng Wen**, University of Leeds, UK
- **Dr. Yuwen Zhang**, University of Missouri, USA

SCIENTIFIC COMMITTEE

We would like to thank the following for accepting to act as a member of the Scientific Committee for the MCM'21 Congress:

Scientific Committee Members for ICMIE'21

- **Dr. Carlos Avila**, California Institute of Technology (Caltech), USA
- **Dr. Satyandra Gupta**, University of Southern California, USA
- **Dr. Duc Truong Pham**, University of Birmingham, UK
- **Dr. Dan Zhang**, York University, Canada
- **Dr. Ying Liu**, Cardiff University, UK
- **Dr. Min Xie**, City University of Hong Kong, China
- **Dr. Surendra M. Gupta**, Northeastern University, USA

Scientific Committee Members for MMME'21

- **Dr. Pura Alfonso**, Escola Politècnica Superior d'Enginyeria de Manresa (EPSEM), Spain
- **Dr. Frank Cheng**, University of Calgary, Canada
- **Dr. Tung-Han Chuang**, National Taiwan University, Taiwan
- **Dr. Rickard Hansen**, The University of Queensland, Australia
- **Dr. Zi-Kui Liu**, The Pennsylvania State University, USA
- **Dr. Michael Kaufman**, Colorado School of Mines, USA
- **Dr. Fernanda Margarido**, Instituto Superior Técnico, Portugal
- **Dr. Katarzyna Nowińska**, Silesian University of Technology, Poland
- **Dr. Andre Carlos Silva**, Universidade Federal de Goiás, Brazil
- **Dr. Hong Yong Sohn**, University of Utah, USA

SCIENTIFIC COMMITTEE

We would like to thank the following for accepting to act as a member of the Scientific Committee for the MCM'21 Congress:

Scientific Committee Members for ICCPE'21

- **Dr. Shing Bor Chen**, National University of Singapore, Singapore
- **Dr. Eric S. Fraga**, University College London, UK
- **Dr. Masami Okamoto**, Toyota Technological Institute, Japan
- **Dr. Dimitrios Sidiras**, University of Piraeus, Greece
- **Dr. Minhua Shao**, The Hong Kong University of Science and Technology, Hong Kong
- **Dr. Jingbo Wang**, Borealis Polyolefine GmbH, Austria

KEYNOTE SPEAKERS

The keynote information for the 7th World Congress on Mechanical, Chemical, and Material Engineering (MCM'21) is as follows:

Keynote Speakers



Dr. Christos Markides

Imperial College, UK
HTFF'21 Keynote Speaker



Dr. Yulong Ding

University of Birmingham, UK
HTFF'21 Keynote Speaker



Dr. Perumal Nithiarasu

University of Wales, UK
HTFF'21 Keynote Speaker



Dr. Min Xie

City University of Hong Kong,
China
ICMIE'21 Keynote Speaker



Dr. Surendra M. Gupta

Northeastern University, USA
ICMIE'21 Keynote Speaker



Dr. Jiang Jianwen

National University of
Singapore (NUS), Singapore
ICCPE'21 Keynote Speaker

KEYNOTE SPEAKERS



Titles: Advanced Diagnostic Methods for High-Fidelity Measurements in Multiphase Flows: State-of-the-Art, Challenges and Outlook

Dr. Christos Markides, Imperial College, UK

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Christos Markides is Professor of Clean Energy Technologies, Head of the Clean Energy Processes Laboratory, which numbers 45 researchers, and leads the Experimental Multiphase Flow Laboratory, which is the largest experimental space of its kind at Imperial College London. He is also, amongst other, Editor-in-Chief of 'Applied Thermal Engineering', a member of the UK National Heat Transfer Committee and the Scientific Committee of the UK Energy Storage SUPERGEN Hub. He specialises in applied thermodynamics and transport processes as applied to high-performance devices, technologies and systems for thermal-energy recovery, utilization, conversion or storage.

For more information Please visit:

https://avestia.com/MCM2021_Proceedings/files/speakers.html



Titles: Heat Transfer Intensification Using Particles Across Length Scales

Dr. Yulong Ding, University of Birmingham, UK

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Professor Yulong Ding CEng FICHEM FRSC is the founding Chamberlain Chair of Chemical Engineering at the University of Birmingham and director of Birmingham Centre for Energy Storage. His current research covers both fundamental (multiphase transport phenomena across length scales) and applied (new energy conversion and storage technologies) aspects.

For more information Please visit:

https://avestia.com/MCM2021_Proceedings/files/speakers.html

KEYNOTE SPEAKERS



Titles: Machine Learning In Inverse Analysis of Heat Transfer Processes

Dr. Perumal Nithiarasu, University of Wales, UK

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Professor Perumal Nithiarasu (PN) is currently the Associate Dean for Research Innovation and Impact, Faculty of Science and Engineering at Swansea University. Previously, PN served as the Head of Zienkiewicz Centre for Computational Engineering for five years, Deputy Head of College of Engineering for three years and Dean of Research Impact for five years. A Mechanical Engineer by training, PN has extensive experience in teaching various disciplines. PN's research areas of interest include computational fluid dynamics/biomedical engineering and, recently AI. He has been working in these areas for more than 25 years and has published many articles and books. Well known internationally for his work, PN was awarded the Zienkiewicz silver medal of ICE London in 2002, ECCOMAS Young Investigator award in 2004 and the prestigious EPSRC Advanced Fellowship in 2006.

For more information Please visit:

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Titles: Industrial and Systems Safety and Reliability in the Big-Data Era

Dr. Min Xie, City University of Hong Kong, China

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Prof. Min Xie completed his undergraduate study and received his MSc in 1984 from Royal Institute of Technology, Stockholm, and he later received his PhD in 1987 from Linkoping University, Sweden. Dr Xie joined the National University of Singapore in 1991 as one of the first recipients of the prestigious Lee Kuan Yew Research Fellowship. He moved to City University of Hong Kong as Chair Prof of Industrial Engineering in 2011. Prof Xie serves an editor, associate editor and on the editorial board of 20 established international journals. Prof Xie has supervised over 60 PhD students and they hold regular position in banking, industry and academia in different continents. Prof Xie was elected fellow of IEEE in 2005.

KEYNOTE SPEAKERS



Titles: Recent Areas of Academic Research in Environmentally Conscious Manufacturing and Future Trends

Dr. Surendra M. Gupta, Northeastern University, USA

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Surendra M. Gupta, Ph.D., P.E., is a Professor of Mechanical and Industrial Engineering and the Director of the Laboratory for Responsible Manufacturing at Northeastern University in Boston, Massachusetts, USA. He received his BE in Electronics Engineering from Birla Institute of Technology and Science, MBA from Bryant University, and MSIE and Ph.D. in Industrial Engineering from Purdue University. He is a registered professional engineer in the State of Massachusetts, USA. Dr. Gupta's research interests span the areas of Production/Manufacturing Systems and Operations Research. He is mostly interested in Environmentally Conscious Manufacturing, Reverse and Closed-Loop Supply Chains, Disassembly Modeling and Remanufacturing. He has authored or coauthored twelve books and well over 650 technical papers published in edited books, journals and international conference proceedings.

For more information Please visit:

https://avestia.com/MCM2021_Proceedings/files/speakers.html



Titles: Computational Membrane Separations

Dr. Jiang Jianwen, The Hong Kong University of Science and Technology, Hong

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Jianwen Jiang's research expertise is computational materials modeling, currently focused on nanoporous and membrane materials for energy, environmental and pharmaceutical applications (e.g. carbon capture, water desalination and drug delivery). He has published over 200 technical manuscripts, with ~12000 citations and H-index of 62 (based on Google Scholar). He is a Fellow of the Royal Society of Chemistry, UK. He is on the editorial board of Advanced Theory and Simulations, Computational Materials Science, etc.

LIST OF PAPERS

The following papers were presented at the the 7th World Congress on Mechanical, Chemical, and Material Engineering (MCM'21)

CFD

Title: Numerical Model of Convective Heat Transfer in a Multi-level Hydroponic Greenhouse system

Authors: Vitaly Haslavsky, Helena Vitoshkin

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Title: Modeling of Liquid Film Flow during Spin-Coating; Marangoni-Bénard Instability in Parallel Basic Flow

Authors: Kohei Ono, Suguru Shiratori, Kenjiro Shimano, Hideaki Nagano

[View Paper](#)

Title: Physics-Informed Neural Network with Variable Initial Conditions

Authors: Yo Nakamura, Suguru Shiratori, Hideaki Nagano, Kenjiro Shimano

[View Paper](#)

Title: Vortex Panel Method in Axisymmetric Cylindrical Coordinate

Authors: Masaya Kato, Suguru Shiratori, Hideaki Nagano, Kenjiro Shimano

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Title: A Concept for CFD Simulation of One and Two Phase Flow Compact Heat Exchangers towards the Design Optimization

Authors: Fengjun Yang, Klaus Mohrlök

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CFD

Title: Simulations of Low Mach number Flows and Heat Transfer in Rotating Systems

Authors: Ahmed Hodaib, Isabelle Raspo, Stéphane Viazzo, Anthony Randriamampianina

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Title: Examination of Complicated Thermal Hydraulic Characteristics in Core Region of a PWR

Authors: Hyun-Gon Kim, Jae-Min Jyung and Yoon-Suk Chang

[View Paper](#)

Title: Numerical Investigation of the Effects of Baffles in a Shell and Tube Heat Exchanger

Authors: Mehmet Turgay PAMUK

[View Paper](#)

Title: Numerical Simulation of Innovative Air Capture Systems Based On Bladeless Technology

Authors: Maurizio Carlini, Andrea Mennuni, Mirko Rotondo, Stefano Morelli

[View Paper](#)

Title: Numerical Modelling and Simulation of the Aluminothermic Welding of Rails: Heat Transfer and Solid-Liquid Phase Change

Authors: Ravi Govindram Kewalramani, Ingo Riehl, Jan Hantusch, Joerg Keichel, Martin Niederkrueger, Tobias Fieback

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CFD

Title: The Effect of Particles Surface Temperature Distribution in Numerical Modelling Of High Scale Combustion and Gasification Chambers

Authors: Ewa Karchniwy, Adam Klimanek, Sławomir Sładek, Andrzej Szlęk, Agnieszka Korus, Wojciech Adamczyk

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Title: Effect of Substrate Orientation on Melt Pool during Multi-Layer Deposition in V-Groove with Gas Metal Arc

Authors: Pradip Aryal, Kjell Hurtig, Fredrik Sikström, Håkan Nilsson, Isabelle Choquet

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Title: Hydromagnetic Mixed Convection along a Vertical Cylinder in a Stratified Non-Darcian Porous Medium

Authors: Saddam Atteya Mohammad, Abdelkrim Younis Fathi

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Design and Manufacturing

Title: Magnetic Flux Density Distribution of 1.5 kW Permanent Magnet Synchronous Generator by using Response Surface Methodology

Authors: Deniz Perin, Mehmet Baki Dogru, Demet Gonen Ocaktan, Ali Oral, Aslan Deniz Karaoglan

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Title: Using Machine Learning to Establish the Relationship between Die Casting Parameters and the Casting Quality

Authors: Shuei-Wan Juang, Yi-Ning Huang, David A. Kafando

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Composite Materials

Title: Mechanical Behaviour of Mg/SiC Composite Processed by Friction Stir Processing

Authors: Ahmed Naser, Basil Darras, Mohammad Nazzal

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Title: Comparison of Mechanical Properties of Carbon Fibre and Kaolin Reinforced Polypropylene Composites

Authors: Duriyang Thongsoon, Chamil Abeykoon, Ivan J. Vera-Marun, Prasad Potluri, Wareerom Polrut, Butra Boonliang

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Polymer Science and Engineering

Title: Development of Flame Retardant EPDM based Rubber Compounds

Authors: Tuğba Akyıldız, Ömer Özdemir, Hümeyra Bozkurt

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Title: Silicon in Agave Angustifolia Haw Leaves

Authors: Margarita Mondragón, Luis E. Elizalde, Victor Rejón

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Materials Preparation and Processing

Title: Experimental Investigation into Quasi-Static Crushing of CFRP Composite Cylindrical Tubes after Thermal Aging

Authors: Tamer A. Sebaey

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Title: Design, Manufacturing and Testing of Pipe Fittings

Authors: M. Evren Toygar, Selin Kirdiş, Mustafa Yegin, Elvan Pehlivan, Umut Doğan, Özkan Deniz, Mustafa Çoban

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Title: Evaluation of the use of titanium and silicon nanoparticles for the improvement the thermal conditioning system in vehicles

Authors: Jaime Cueva, Cristian Yalama, Fredy Llulluna, Myrian Larco, Claudio Cordova

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Title: Mechanical characterization of dendrocalamus asper bamboo laminates from the andean region

Authors: Myrian Larco, Fredy Llulluna, Claudio Cordova

[View Paper](#)

Title: Metallographic analysis for low carbon steels using software developed with Python

Authors: Fredy Llulluna, Claudio Cordova, David Pachacama, Darwin Pachacama, William Paucar

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Nanotechnology Fluid Flow and Heat Transfer

Title: Growth and Self-Ejection of Single Condensate Droplet on Nanostructured Microcones

Authors: Nicolò G. Di Novo, Alvise Bagolini, Nicola M. Pugno

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Title: A Novel Evaporator Integrated with Wettability Pattern for Improving Thermal Performance of An Ultrathin Vapor Chamber

Authors: Yinchuang Yang, Jian Li, Dong Liao, Xin Ye, Huihe Qiu

[View Paper](#)

Energy Management

Title: Study of Temperature Fields and Heat Exchange Surfaces of Semiconductor Component.

Authors: Peter Hrabovský, Zuzana Kolková, Jozef Matúšov, Zlatica Skákalová, Ľuboš

[View Paper](#)

Title: Basic Measurement of Air Flow in the Working Environment

Authors: Peter Hrabovský, Zuzana Kolková, Jozef Matúšov, Pavol Belány

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Title: A Re-examination of Power Coefficient as a Measure of Performance for Horizontal Axis Wind Turbines

Authors: Thomas M. Adams, Benjamin E. Mertz

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Mechanical Engineering

Title: Numerical Simulation of the Erosion Phenomenon at the Knee Tube at Different Angles Using DOE Method

Authors: Ayed Alshammari, Faramaz Djamanroodi, Esam Jassim

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Title: Response of Base Isolation System for Small Exhibits in the Museum

Authors: Katsumi Kurita, Shigeru Aoki

[View Paper](#)

Title: Evaluation of Welding Residual Stress Reduction by Ultrasonic Vibration Load

Authors: Akira Nakazato, Katsumi Kurita, Shigeru Aoki, Shigeomi Koshimizu, Tsuyoshi Matuyama

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Title: Dynamic Analysis of a Convergence Diagnostic Equipment for Preventive Maintenance in Light Vehicles

Authors: Claudio Cordova, Fredy Llulluna , Juan Sinchi, David Pachacama, Darwin Pachacama

[View Paper](#)

Title: Detection of Tumours Using Breast Surface Thermal Patterns

Authors: Y.S. Yu, G.S. Hu, S.C. Fok

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Title: Identification of the Mechanical Properties of the Coating Using the Digital Image Correlation Technique

Authors: Y.S. Yu, G.S. Hu, S.C. Fok

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Mechanical Engineering

Title: Analytical and Numerical Solutions of Contact Problem for the Microperiodic Slant Layered Composite Body in A Plane Strain State

Authors: Piotr Sebestianiuk, Paweł Mościcki, Dariusz Perkowski

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Title: Simulation of Long-Term Destruction of Typical Structural Elements Influenced By an Active Medium and Unsteady Loading

Authors: Leonid Fomin, Yulia Fomina

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Title: Steady-State Creep of a Long Narrow Rectangular Membrane inside a Low Rigid Matrix with a Variable Transverse Pressure

Authors: A.M. Lokoshchenko, L.V.Fomin, A.F.Akhmetgaleev

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Title: Steady-State Creep of a Long Narrow Membrane inside a High Rigid Matrix at Variable Transverse Pressure

Authors: A.M. Lokoshchenko , L.V.Fomin , Yu.G. Basalov

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Metal Processing

Title: Effect of Welding Time on Strength of Friction Stir Spot Welded Aluminum Alloy/Acrylic Plastic Joint

Authors: Mitsuhiro Watanabe, Masaya Kato, Yu Noguchi, Etsuhiro Tsukidate,

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Title: Atomic Migration of Cu in Ti/Ni/Cu/Ag Backside Metallization on Si Substrate

Authors: Tung-Han Chuang, Pei-Ing Lee , Po-Ching Wu

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Title: Gold Characterization of the San Luis Alta Mine, Ayacucho, Perú

Authors: Pura Alfonso, Elsa Ccolqqe, Maite Garcia-Valles, Roger Gaona, Arnau Martínez

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New Materials and Performances

Title: Improving the Process of Metallic Fuels Production through the Solar Carbothermal Reduction of Magnesia

Authors: Youssef Berro, Jean Puig, Marianne Balat-Pichelin

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Title: Evaluation of the Mechanical Behavior of Mortars Obtained By Geopolymerization of Calcined Clay and Demolition Mortar

Authors: D.L. Mayta-Ponce, V.C. Bringas-Rodríguez, J.F. Gamarra-Delgado, M.L. Benavides-Salinas, C.K. Palomino-Naupa, G.P. Rodríguez-Guillén and F.A. Huamán-Mamani

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Title: Evaluation of the Mechanical Behavior of Biomorphic Silicon Carbide Derived From Low-Density Peruvian Woods

Authors: V.C. Bringas-Rodríguez, J.F. Gamarra-Delgado, M.L. Benavides-Salinas, C.K. Palomino-Naupa, D.L. Mayta-Ponce, G.P. Rodríguez-Guillén and F.A. Huamán-Mamani

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Title: Synthesis and Mechanical Evaluation of Portland Cement Mortars Reinforced With Silicon Carbide Powder

Authors: J.F. Gamarra-Delgado, M.L. Benavides-Salinas, V.C. Bringas-Rodríguez, C.K. Palomino-Naupa, D.L. Mayta-Ponce¹, G.P. Rodríguez-Guillén, R.M. Zapana-Vilcapaza and F.A. Huamán-Mamani

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Optimization of Systems

Title: An analysis of operating parameters in an environment with high heat load

Authors: Zuzana Kolková, Peter Hrabovský, Jozef Matušov, Pavol Belány

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Title: The effect of the state of the indoor environment on the air quality in the cabin

Authors: Zuzana Kolková, Peter Hrabovský, Jozef Matušov, Lenka Mikulová, Ľuboš Daniel

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Combustion

Title: Eligibility Adopting Error Functions to Reproduce the Combustion Behavior of the Covering Materials of Cables

Authors: Tsukasa Fukaya, Yuji NakamuraDaniel

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Title: Study of Burning Characteristics of Porous Combustibles Soaked With a Liquid Oxidizer

Authors: Daiki Matsugi, Yuji Nakamura

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Title: Influence of Surface Temperature Distribution on Reaction Rate of Solid Fuel Char Particles

Authors: Ewa Karchniwy, Sławomir Śladek, Adam Klimanek, Andrzej Szlęk, Agnieszka Korus, Wojciech Adamczyk

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Conduction, Convection and Radiation Heat Transfer

Title: Analytical Study of Thermal Heat Conduction inside Two Orthotropic Mediums in Cylindrical Geometry

Authors: Mohammed Nikchi, Hamid Hamza, Khalid Zniber, Jawad Lahjomri and Abdelaziz Oubarra

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Title: Conversion of Mixed Waste of Wood and Plastic to Clean Fuels Using Pyrolysis in Nigeria – Numerical Study

Authors: Andrew N. Aziz, Saad Mahmoud, Raya Al-Dadah, Surindar Dhesi, Irina Kuznetsova, Cyril Effiong, Ejikeme Kanu

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Title: Heat Transfer in High-Temperature Contact Processes with the Participation of the Oxidized Layer

Authors: Aleksandra Przyłucka, Marcin Rywotycki

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Title: A Wickless Paradigm for High-Performance Vapor-Chamber Heat Spreaders

Authors: George Damoulakis, Constantine Megaridis

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Mining Fundamentals and Mineral Processing

Title: Impact of Recirculating Mining Process Water on the Flotation Performance of a Sedimentary Phosphate Ore

Authors: Morake D. Hlahane, Willie Nheta, Mamookho Elizabeth Makhatha

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Title: Upgrading the Fe Grade of Magnetite Concentrate Using a Magnetic Hydro-Sizer

Authors: Evans Vincent Rissenga, Willie Nheta, C.K. Palomino-Naupá, G.P. Rodríguez-Guillén and F.A. Huamán-Mamani

[View Paper](#)

Title: Characterization Of Clays In Catalan Potash Basin. Influence On The Geomechanical Conditions In Potash Mining.

Authors: Nor Sidki, Marc Bascompta, Lluís Sanmiquel, David Parcerisa

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Title: Analysis of the Surveying Errors in the Cabanasses Ramp Breakthrough

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

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Applied Chemistry

Title: Possible Effects of a Natural Silica-Based Sand on the Thermodynamic and Kinetic Behaviour of CH₄ and CO₂ Hydrate Formation.

Authors: Alberto Maria Gambelli, Andrea Nicolini

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Title: The Determination of Some Organic Pollutants in the Waters of the Seman Basin

Authors: Valbona HOXHA, Albana JANO, Kozeta VASO, Aurel NURO, Enkela PORO

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Title: Comparison of Corrosion Protection Efficiency of Two Kinds of Amino Acids

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

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Title: Effects of Migrating Inhibitors on Corrosion of Reinforcing Steel in Aggressive Environment

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

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Title: Optimization of CVD Parameters during Synthesis of Fe@C Core-Shell Nanoparticles using Fe-Nitrate Based Precursors

Authors: Sıddıka Mertdinç, Umut Savacı, M. Lütfi Öveçoğlu, Duygu Ağaoğulları

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Applied Chemistry

Title: Comparison of the Two Common Solvents for THC and CBD Extractions

Authors: Kanda Wongwailikhit, Jiratchaya Ruangdech

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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).

MCM'22

The 8th World Congress on Mechanical, Chemical, and Material Engineering (MCM'22) will be held on

July 31 - August 02, 2022 in Prague, Czech Republic.



For inquiries and to obtain further information on the congress, please visit the [website](https://2022.mcmcongress.com/)

You can also email info@mcmcongress.com or call us
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ETHICS & MALPRACTICE

Publication Ethics and Publication Malpractice Statement

The following statement is mainly based on the [Code of Conduct and Best-Practice Guidelines for Journal Editors](#) (Committee on Publication Ethics, 2011).

Scientific Committee

Scientific Committee

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 below.

[Scientific Committee](#)

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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

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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.

ETHICS & MALPRACTICE

Reviewers

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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.

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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.

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ETHICS & MALPRACTICE

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Errata and Retractions

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Schedule

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

CONTACT US

The 7th World Congress on Mechanical, Chemical, and Material Engineering (MCM'21) consist of 4 conferences. You can contact each conference using the information below.

HTFF

8th International Conference on Heat Transfer and Fluid Flow (HTFF'21)

Email: info@htffconference.com |

Website: <https://2021.htffconference.com>

ICMIE

10th International Conference on Mechanics and Industrial Engineering (ICMIE'21)

Email: info@icmie.net |

Website: <https://2021.icmie.net>

MMME

8th International Conference on Mining, Material, and Metallurgical Engineering (MMME'21)

Email: info@mmmeconference.com |

Website: <https://2021.mmmeconference.com>

ICCPE

7th International Conference on Chemical and Polymer Engineering (ICCPE'21)

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Website: <https://2021.cpeconference.com/>

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