CONFERENCE AGENDA

WEB conference

ICBMM & ICSCE & ICMMM & TMAE 2020

September 24-26, 2020

Time Zone: GMT+2

The 4th International Conference on Building Materials and Materials Engineering

The 4th International Conference on Structural and Civil Engineering

The 7th International Conference on Mechanical, Materials and Manufacturing

The 2nd International Conference on Trends in Mechanical and Aerospace

Co-organized by:

Co-sponsored by:

Technical Sponsored by:

TABLE OF CONTENTS

WELCOME ADDRESS

Dear distinguished delegates,

We sincerely appreciate your strong support for this on-line conference. Welcome to attend ICBMM & ICSCE & ICMMM & TMAE 2020. ICBMM & ICSCE 2020 are plan to be held in Barcelona, Spain and ICMMM & TMAE 2020 are plan to be held in Washington, USA. But with the evolving COVID-19 pandemic, the whole world has been under stress and countries have no choice but to impose tight border control.

Considering this situation, we are creating a virtual environment where the attendees can present the papers and can participate in all the sessions and in all the activities that will be organized in a full immersive experience. All sessions, oral presentations, discussions and other activities will be offered in a streaming online. Hope you could still enjoy this conference!

ICBMM & ICSCE & ICMMM & TMAE 2020 are aimed at providing an excellent avenue for academicians, students, researchers, professionals, engineers, and scientists from academia and industry to share their research findings and building network for further collaborative research in their respective areas.

Special thanks are extended to our colleagues in program committee for their thorough reviews of all the submissions, which are vital to the success of the conference, and also to the members in the organizing committee and the volunteers who had dedicated their time and efforts in planning, promoting, organizing and helping the conference. Last but not least, our special thanks go to speakers as well as all the authors for contributing their latest researches to the conference.

This is a great challenge that we will live together to have a better world tomorrow! Stay safe and be healthy! We look forward to meeting you again next time!

ICBMM & ICSCE & ICMMM & TMAE 2020
Committee Group

COMMITTEE

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Conference General Chair

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Time Zone **Spain Time: GMT +2**

You're suggested to set up the time on your computer in advance.

Platform: ZOOM

Zoom skill learning

1. The instructions about Zoom, please visit:
https://support.zoom.us/hc/en-us/articles/201362033-Getting-Started-on-Windows-and-Mac
2. To get the Zoom Video Tutorials, please go to:
http://www.icbmm.org/zoom/guidelines.html

Join Zoom Meeting Room

Formal & Test Speaker, Formal & Test Session 1&2&3, please join in
https://zoom.com.cn/j/63854999844
Meeting ID: 638 5499 9844

Formal & Test Session 4&5, please join in
https://zoom.com.cn/j/68859772915
Meeting ID: 688 5977 2915

Environment requirement

1. Quiet Location
2. Stable Internet Connection
3. Proper lighting

Equipment needed

1. A computer with an internet connection (wired connection recommended)
2. USB plug-in headset with a microphone (recommended for optimal audio quality)
3. Webcam: built-in or USB plug-in

How to access the Zoom meeting room

1. Open Zoom app and create account firstly, then log in with your account.
2. Choose "JOIN A MEETING", and copy the Meeting ID directly and then click "JOIN" button.
3. Rename your name with this format **(Paper ID + Name)** entering the Zoom meeting room.

Attention

1. To effectively control the time and avoid some unexpected situations, we advise you to record your presentation in advance as a backup. Each author has 12 minutes for presentation and 3 minutes for Q&A.
2. September 24, 2020 is for test presentation, please don't forget to test in order to guarantee the formal sessions goes smoothly.
3. The conference will be recorded, we will appreciate your proper behavior.
4. Please enter the meeting room 10 minutes in advance.

SPEAKER

Keynote Speaker

Prof. Ramesh Agarwal

Fellow of IEEE, AIAA, ASME, AAAS, APS...

Washington University in St. Louis, USA

Biography: Prior to joining the faculty at Washington University in 2001, Professor Agarwal was the Chair of the Aerospace Engineering Department at Wichita State University from 1994 to 1996 and the Executive Director of National Institute for Aviation Research from 1996 to 2001. From 1994 to 2001, he was also the Bloomfield Distinguished Professor at Wichita State University.From 1978 to 1994, Professor Agarwal worked in various scientific and managerial positions at McDonnell Douglas Research Laboratories in St. Louis.

For more Biography, please visit:

http://www.icmmm.org/speaker.html

Speech Title: *Shape Optimization of Axisymmetric Bodies in Hypersonic Reactive Flow for Minimizing Drag and Heat Transfer*

Abstract: A large design concern for high-speed vehicles such as next generation launch vehicles or reusable space vehicles is the drag and heat transfer experienced at hypersonic velocities. In this talk, the optimized shapes for minimum drag and heat transfer for axisymmetric bodies are developed using computational fluid dynamics (CFD) software in conjunction with a multi-objective genetic algorithm. For flow field calculations, the commercial flow solver ANSYS FLUENT is employed to solve the unsteady compressible Reynolds Averaged Navier-Stokes (RANS) equations using several turbulence models, namely the Spalart-Allmaras (SA) model, the SST k-ω model and the transitional flow model k-kl-ϵ. The results from these models are compared to determine their accuracy for drag and heat transfer predictions. The hypersonic body shapes are optimized for minimum drag and heat transfer using a multi-objective genetic algorithm. Both cases with air in equilibrium and thermochemical non-equilibrium are considered. For air in thermochemical non-equilibrium, a seven species (N, O, N2, O2, NO, NO+ and e-) chemical reaction model is considered. The shape optimization results for a blunt body with a spherical nose are presented.

Keynote Speaker

Prof. Carlos Chastre

NOVA University of Lisbon, Portugal

Biography: Carlos Chastre received his Ph.D. degree in Civil Engineering / Structures from NOVA University of Lisbon and also holds a M.Sc. degree in Structural Engineering and a B.Eng in Civil Engineering from Technical NOVA University of Lisbon. After working in industry for 8 years, he joined the Department of Civil Engineering at NOVA University of Lisbon as a Teaching Assistant in 1997, and was promoted to Assistant Professor in 2005. He has been a professor in charge of courses of Statics, Strength of Materials II, Reinforced Concrete I and II, Structural and Geotechnics Subjects, Design of Structures, Structural Design and Strengthening & Repair of Structures.

Speech Title: *Strengthening of Masonry Arches using the CREatE Technique*

Abstract: To Be Added

SPEAKER

Keynote Speaker

Prof. Ian McAndrew

Capitol Technology University, USA

Biography: Prof. Ian R. McAndrew PhD is a Mechanical Engineer that has worked in education for over 27 years. His teaching and research has been globally, starting in London and now with Capitol Technology University where he is the Dean of Doctoral Programs. He has taught in over 20 countries and published with many academics from all over the world. He has 6 degrees, also a qualified Electrical Engineer and FRAeS. He has supervised over 50 PhDs and has almost 60 peer reviewed publications. His current research is in aerodynamics and low speed flight.

He is a keen supporter of conferences as this is where junior researchers can develop their skills for a life in research. He is frequently invited to deliver Keynote speeches and is the Chair of several International Conferences. Additionally, he is the editor or assistant editor in chief of several International Journals.

Speech Title: *Measures to Insure the Cloud Storage is Secure in Manufacturing Systems Post COVID-19*

Abstract: There is a drive politically to return manufacturing to the USA and Europe post Covid-19 to ensure supply lines are maintained for safety, logistics and national defense. To compete on an international stage against low labour costs will require advance systems of efficiency. Such systems will be reliant of automation and computers, The cloud is seen as one way to support, protect and assist manifesting. Yet there are concerns and risks. This research will discuss the research and needs to be operationally safe.

Keynote Speaker

Assoc. Prof. Paulo Mendonça

University of Minho, Portugal

Biography: Paulo Mendonça was born in Porto in 10th June. PhD in Civil Engineering by the University of Minho, with the thesis: "Living under a second skin", acclaimed by unanimity (2005). As a PhD fellowship of FCT (Portuguese Foundation for Science and Technology) he got the "Advanced Studies Diploma" in Barcelona on the Technical Superior School of Architecture (ETSAB). He is Associate Professor in the Architecture School of the University of Minho, Portugal (EAUM). President of EAUM (2011-2012) and Vice-President (2010-2011). Architectural Graduate and Integrated Master Studies Director (2005-2009). He is an author of more than one hundred publications. The main research subjects includes lightweight and mixed weight buildings, low cost housing, local and global economic asymmetries, low-tech strategies.

Speech Title: *Promoting Architectural Membranes in Academic Contexts*

Abstract: Architectural membranes are among the building construction products that knew a strong development in the last 50 years, due to new composite materials and design methods that allowed to significantly improve the durability, the adaptation to different uses and forms, assembly / disassembly, as well as reducing the weight, the cost of construction and transportation of the lightweight structures that these configure. They also exhibit specific structural and functional properties and allow luminous architectural solutions that enhance functional advantages and different approaches than those generally associated with heavyweight conventional materials. Due to its extremely reduced weight, architectural membrane solutions present ecological advantages based on the minimum use of material and the fact that they are dry assembling, easily reusable and recyclable.

It is the university's mission to generate, disseminate and apply knowledge, through research and in response to the needs of society. Universities remain the ideal place for the development and experimentation of innovative concepts. The fact that the designs developed in the academic environment are usually utopian in nature as they do not aim to materialize the work or have a specific client or promoter, they do not present themselves with the same budgetary, regulatory or even cultural restrictions as the real projects.

SPEAKER

Plenary Speaker

Asst. Prof. Haijun Gong

Georgia Southern University, USA

Biography: Dr. Gong's research interest concentrates on characterizing the material properties of metal additive manufacturing product including titanium alloy, cobalt chrome, aluminum alloy, etc., as well as simulating their laser or electron melting and solidification process. He is interested in applying the knowledge of additive manufacturing materials for the advanced manufacturing processes. Dr. Gong is also interested in additive manufacturing and 3D printing process development, aiming to fully incorporate this technology into the modern manufacturing process.

Speech Title: *Impact Testing of Acrylonitrile Butadiene Styrene (ABS) Printed by Fused Deposition Modeling*

Abstract: Acrylonitrile butadiene styrene (ABS) is a widely used thermoplastic polymer. An important material property of ABS is its impact resistance and toughness. Due to its lightweight and great thermal characteristics, ABS is highly adopted by household goods, automotive components, electrical assemblies, etc. It is also a common feedstock material of fused-deposition-modeling (FDM) based 3D printers. ABS filament enables FDM 3D printing customized parts or prototypes with flexibility and efficiency. However, research regarding the 3D printed ABS impact strength is limited. This study performs a Charpy and Izod impact testing to the ABS parts made by FDM 3D printer, in compliance with ASTM standards. The testing results are presented and discussed in comparison with the conventionally made ABS material. Some key points about utilizing 3D printed ABS for functional parts are summarized in terms of its special impact resistant property.

AGENDA OVERVIEW

THURSDAY 24 SEPTEMBER	FRIDAY 25 SEPTEMBER	SATURDAY 26 SEPTEMBER
10:00-10:50 Test Speakers	10:00-10:10 Opening Remarks Prof. Carlos Chastre	09:00-10:45 Formal Session 1
10:50-11:00 Break	10:10-10:55 Speech I Assoc. Prof. Paulo Mendonça	10:45-11:00 Break
11:00-11:35 Test Session 1	10:55-11:40 Speech II Prof. Carlos Chastre	11:00-13:30 Formal Session 2
11:35-11:45 Break	11:40-14:00 Lunch Break	13:30-14:30 Break
11:45-12:35 Test Session 2	14:00-14:10 Welcome Address Prof. Ian McAndrew	14:30-17:00 Formal Session 3
12:35-12:45 Break	14:10-14:55 Speech III Prof. Ramesh Agarwal	09:00-11:30 Formal Session 4
12:45-13:35 Test Session 3	14:55-15:40 Speech IV Prof. Ian McAndrew	11:30-13:00 Break
11:00-11:50 Test Session 4	15:40-15:55 Afternoon Break	13:00-17:00 Formal Session 5
11:50-12:00 Break	15:55-16:40 Speech V Asst. Prof. Haijun Gong	
12:00-13:15 Test Session 5		

DETAILED AGENDA

Test Session at a Glance

THURSDAY

24 SEPTEMBER

Test Speaker & Session 1,2,3
Meeting ID: 63854999844
Meeting Link: https://zoom.com.cn/j/63854999844

Test Session 4,5
Meeting ID: 68859772915
Meeting Link: https://zoom.com.cn/j/68859772915

Time	Item & Speaker
10:00-10:10	Prof. Carlos Chastre
10:10-10:20	Assoc. Prof. Paulo Mendonça
10:20-10:30	Prof. Ramesh Agarwal
10:30-10:40	Prof. Ian McAndrew
10:40-10:50	Asst. Prof. Haijun Gong
10:50-11:00	Break
11:00-11:35	Session 1: Products Design and Mechanical Manufacturing
11:35-11:45	Break
11:45-12:35	Session 2: Building Materials and Materials Engineering
12:35-12:45	Break
12:45-13:35	Session 3: Building Structures and Civil Engineering
11:00-11:50	Session 4: Materials Science and Structural Mechanics
11:50-12:00	Break
12:00-13:15	Session 5: Mechanical and Manufacturing Engineering

Formal Session at a Glance

FRIDAY

25 SEPTEMBER

Meeting ID:
638 5499 9844
Meeting Link:
https://zoom.com.cn/j/63854999844

Time	Item & Speaker
10:00-10:10	Opening Remarks Prof. Carlos Chastre
10:10-10:55	Speech I Assoc. Prof. Paulo Mendonça Speech Title: *"Promoting Architectural Membranes in Academic Contexts"*
10:55-11:40	Speech II Prof. Carlos Chastre Speech Title: *"Strengthening of Masonry Arches using the CREatE Technique"*
11:40-14:00	Lunch Break
14:00-14:10	Welcome Address Prof. Ian McAndrew
14:10-14:55	Speech III Prof. Ramesh Agarwal Speech Title: *"Shape Optimization of Axisymmetric Bodies in Hypersonic Reactive Flow for Minimizing Drag and Heat Transfer"*
14:55-15:40	Speech IV Prof. Ian McAndrew Speech Title: *"Measures to Insure the Cloud Storage is Secure in Manufacturing Systems Post COVID-19"*
15:40-15:55	Afternoon Break
15:55-16:40	Speech V Asst. Prof. Haijun Gong Speech Title: *"Impact Testing of Acrylonitrile Butadiene Styrene (ABS) Printed by Fused Deposition Modeling"*

Formal Session at a Glance

SATURDAY

26 SEPTEMBER

Formal Session 1,2,3
Meeting ID:
63854999844
Meeting Link:
https://zoom.com.cn/j/63854999844

Formal Session 4,5
Meeting ID:
68859772915
Meeting Link:
https://zoom.com.cn/j/68859772915

Time	Item
09:00-10:45	Session1: Products Design and Mechanical Manufacturing
10:45-11:00	Break
11:00-13:30	Session2: Building Materials and Materials Engineering
13:30-14:30	Break
14:30-17:00	Session3: Building Structures and Civil Engineering
09:00-11:30	Session4: Materials Science and Structural Mechanics
11:30-13:00	Break
13:00-17:00	Session5: Mechanical and Manufacturing Engineering

AUTHOR'S PRESENTATION

Session 1-- Products Design and Mechanical Manufacturing

09:00-10:45, September 26, 2020 (Spain Time GMT+2)

Session Chair: To Be Added
Meeting ID: 638 5499 9844
Meeting Link: https://zoom.com.cn/j/63854999844

09:00-09:15	**MD20-307**	Evaluating Post Machining Process of 3D Printing Topology Optimization Nouf Al Hameiri, Maitha Al Shamsi and **Waleed Ahmed** UAE University, UAE
09:15-09:30	**MD20-3003**	Design, Test and FEM Analysis of Customized Titanium Alloy Implant with Scaffold Based on Additive Manufacturing Wen-Teng WANG, Ruei-Nan SHENG and **Zih-Liang JHUANG** National Formosa University, Taiwan
09:30-09:45	**MD20-3010**	Finite Element Analysis of Notch Sensitivity of PEEK under Monotonic Tension **Muhammad Azhar Ali Khan**, Muhammad Asad, Faramarz Djavanroodi, Jamal F. Nayfeh and Taha Waqar Prince Mohammad Bin Fahd University, Saudi Arabia
09:45-10:00	**MD20-304-A**	Design of Graded TPMS with Performance Preserving Density Mapping Strategy Based on Adjoint Sensitivities Onur Parlayan, Cemal Efe Gayir, **Ugur Simsek** and Gullu Kiziltas GE Marmara Technology Center, Turkey
10:00-10:15	**ME20-218E**	Design of Electrical Changing Station **Xingnan Xu** Yanshan University, China

10:15-10:30	**MD20-3007**	The Dynamic Characteristic Analysis of an A/B Biaxial Rotary Milling Head Bin Tian, **Guangshun Liang** and Yun Zhang Tsinghua University, China
10:30-10:45	**MD20-3011**	A Predicting Method for the Health State of the Rolling Bearing **Hongyan Jiang** and Dianjun Fang Tongji University, China

AUTHOR'S PRESENTATION

Session 2-- Building Materials and Materials Engineering

11:00-13:30, September 26, 2020 (Spain Time GMT+2)

Session Chair: Assoc. Prof. Paulo Mendonça , University of Minho, Portugal
Meeting ID: 638 5499 9844
Meeting Link: https://zoom.com.cn/j/63854999844

11:00-11:15	**MD20-3016**	Experimental and Simulation Requirements for Residual Stress of TC4 Titanium Alloy Based on Ultrasonic Rolling **Yanjie Liu**, Xiuli Fu, Hongxia Li, Pengcheng Wang and Xiuhua Men University of Jinan, China
11:15-11:30	**ME20-1002E**	A Self-defined Index for Hygrothermal Performance-Oriented Development of Bamboo and Its Test Method **Zujian Huang** South China University of Technology, China
11:30-11:45	**MD20-3009**	The Effect of Different Woven Structure on the Wear of Fiber Glass Composite **Hamza Abdulrasool Al-Tameemi**, Ahmed Abdul Hussain Ali and Ban Hussein University of Baghdad, Iraq
11:45-12:00	**MD20-3015-A**	Optical Amplification in Gallium Germanosilicate Glass-ceramics Containing γ-Ga_2O_3:Ni^{2+} Nanocrystals Alexander S. Grabchikov, Nikita V. Golubev, **Elena S. Ignat'eva**, Inna A. Khodasevich, Elena O. Kozlova, Valery M. Mashinsky, Georgii E. Malashkevich and Vladimir N. Sigaev Mendeleev University of Chemical Technology of Russia, Russia

12:00-12:15	**ME20-1003**	Mechanical Characterization of New Geopolymeric Materials Based on Mining Tailings and Rice Husk Ash Fredy Alberto Huamán Mamani, Denis Leonardo Mayta Ponce and **Gerhard Paul Rodríguez Guillén** Universidad Católica San Pablo, Perú
12:15-12:30	**ME20-1015**	Influence of the Activating Solution and Aggregates in the Physical and Mechanical Properties of Volcanic Ash based Geopolymer Mortars **Nataly Calderón**, María Vargas, Jonathan Almirón, Asunción Bautista, Francisco Velasco and Danny Tupayachy-Quispe Universidad Católica de Santa María, Perú
12:30-12:45	**ME20-1004**	Fabrication and Evaluation of the Mechanical Beh Avior of Geopolymer Compounds Using Waste from the Mining and Construction Industry Fredy Alberto Huamán Mamani, Denis Leonardo Mayta Ponce and **Gerhard Paul Rodríguez Guillén** Universidad Católica San Pablo, Perú
12:45-13:00	**ME20-1013**	Concrete Cracking Control in Underwater Marine Structures Using Basalt Fiber **Claudio Quispe**, Diego Lino, Jose Rodriguez and Alexandra Hinostroza Universidad Peruana de Ciencias Aplicadas, Peru
13:00-13:15	**ME20-1020**	Application of Glass and Fan Shells to a Clay Soil to Increase its Mechanical Properties **Heiner Arturo Lopez Jara**, Brandon Enrique Bravo Barrionuevo and Carlos Mario Fernández Díaz Peruvian University of Applied Sciences, Perú
13:15-13:30	**ME20-1014**	Use of Textile Waste as an Addition in the elaboration of an Ecological Concrete Block **Jesús Anglade**, Emso Benavente, José Rodríguez and Alexandra Hinostroza Universidad Peruana de Ciencias Aplicadas, Perú

AUTHOR'S PRESENTATION

Session 3-- Building Structures and Civil Engineering

14:30-17:00, September 26, 2020 (Spain Time GMT+2)

Session Chair: Prof. Gerhard Paúl Rodríguez Guillén, Universidad Católica San Pablo, Perú
Meeting ID: 638 5499 9844
Meeting Link: https://zoom.com.cn/j/63854999844

14:30-14:45	**ME20-208**	Numerical Simulation of Catenary Effect of (RC) Frame Structure based on MSC.Marc **Jiahao Yang** and ZHAO Jizhi Chongqing University, China
14:45-15:00	**ME20-1007**	A Numerical Study on the Control of Horizontal Cracking at the Ends of BS22 Hollow-type PC-girders Utilizing Midas FEA **Abdul Khaliq Karimi**, Bashir Ahmad Aasim and Jun Tomiyama University of the Ryukyus, Japan
15:00-15:15	**ME20-207**	Application Status and Analysis of BIM in Pit Engineering Xiaojun Li, Xianyu Zhang, **Yi Shen**, Yun Bai and Guanghui Yang Tongji University, China
15:15-15:30	**ME20-1009**	Assessment of a Real-life Concrete Bridge Structure using Vibration-based Damage Detection Method **Bashir Ahmad Aasim**, Abdul Khaliq Karimi and Tomiyama Jun University of the Ryukyus, Japan
15:30-15:45	**ME20-1008**	The Physical Quality Assessment of Residential Area in Jabodetabek - Indonesia with Green and Livable Settlement Concept **Nina Nurdiani** and Widya Katarina Bina Nusantara University, Indonesia

15:45-16:00	**ME20-1017**	Evaluation of the Thermal Efficiency of the Prototype at the Scale of a Sustainable House that Uses Concrete with PET Fibers and Trombe System **Wilder Dimas Soto-Hinojosa**, Bruno Dueñas and Elsa Carrera Universidad Peruana de Ciencias Aplicadas, Peru
16:00-16:15	**ME20-1021**	Evaluation of SRTM Digital Elevation Model on the Accuracy of 2-D Flood Modelling and a Method for the Correction to Improve the Accuracy **Aslam Suja** South Eastern University of Sri Lanka, Sri Lanka
16:15-16:30	**ME20-223**	Visual inspection and determining bridge load rating over the torrential Rimac River in Lima, Peru Cecilia Karol Blas, **Fernando Carlos Fernandez**, Elsa Carmen Carrera Universidad Peruana de Ciencias Aplicadas, Peru
16:30-16:45	**ME20-224E**	Application of Principles of Programme Management in Construction and Development **Ivana Řezáčová** CTU in Prague, Czech Republic
16:45-17:00	**ME20-1011**	Sustainable Urban Pavement for Cities Affected by El Niño Using Porous Concrete **Boris Aguirre Herrera**, Melanny Anchiraico Giraldo, Jose Rodriguez Barboza and Felipe Garcia Bedoya Universidad Peruana de Ciencias Aplicadas, Perú

AUTHOR'S PRESENTATION

Session 4-- Materials Science and Structural Mechanics

09:00-11:30, September 26, 2020 (Spain Time GMT+2)

Session Chairs: Dr. Narinder Singh, Dept. of Civil Engineering, University of Salerno, Italy; Prof. Andrea Micheletti, University of Rome Tor Vergata, Italy
Meeting ID: 688 5977 2915
Meeting Link: https://zoom.com.cn/j/68859772915

09:00-09:15	**M006**	Mechanical Response of Tensegrity Dissipative Devices Incorporating Shape Memory Alloys **Narinder Singh** Dept. of Civil Engineering, University of Salerno, Italy
09:15-09:30	**M007**	On the mechanics of microscale bistable tensegrity structures **Andrea Micheletti** University of Rome Tor Vergata, Italy
09:30-09:45	**M030**	Mechanical Properties Effect of Wood-plastic composite by Basalt Fiber and MAPE **Yong WANG** Nantong Vocational University, China
09:45-10:00	**M024**	Thermomechanical and Morphological Properties of Sustainable Mortars Employing Blast Furnace Slag and Fly Ash Reinforced Cement **Ilenia Farina** University of Naples Parthenope, Italy
10:00-10:15	**M042**	Numerical and Experimental Investigation of Fully-coupled and Uncoupled Finite Element Model for Electromagnetic Forming of Aluminium Alloy Al 3014 **Zarak Khan** National University of Sciences and Technology (NUST), Pakistan
10:15-10:30	**M005**	Mechanics of Energy Harvesters Based on Tensegrity Solar Facades **Enrico Babilio** University of Naples "Federico II", Italy

10:30-10:45	**M043**	Formation of Discontinuities in Rectangular Plates as a Result of Residual Stress Relief **Alexander Kerzhaev** Institute of Earthquake Prediction Theory and Mathematical Geophysics, Russian Academy of Sciences, Russia
10:45-11:00	**M032**	Research on the Time Delay Law of Water-Aluminum Alloy Interface Based on Ultrasonic Phased Array Technology **Xianglong Wu** University of Jinan, China
11:00-11:15	**M025**	Mechanical Characterization of FDM Filaments with PVDF Matrix Reinforced with Graphene and Barium Titanate **Ravinder Sharma** Thapar Institute of Engineering and Technology, India
11:15-11:30	**M033**	Lubrication Performance Analysis of the Connecting Rod Bearing Based on AVL EXCITE **Ning Zhong** Chongqing Yuejin Machinery Co., Ltd., China

AUTHOR'S PRESENTATION

Session 5-- Mechanical and Manufacturing Engineering

13:00-17:00, September 26, 2020 (Spain Time GMT+2)

Session Chairs:
Part I: Dr. Xiaoliang Zhu, Hitachi America, Ltd. Research & Development Division, USA
Part II: Dr. Guillermo Huaco, Peruvian University of Applied Sciences UPC, Peru
Meeting ID: 688 5977 2915
Meeting Link: https://zoom.com.cn/j/68859772915

13:30-14:45 Part I

13:00-13:15	**M008**	Analysis of Disc Cutter Wear Based on the Theory of Energy **Xin Zhang** Tianjin University, China
13:15-13:30	**M0006**	Steady Tangential Control Jet for Improving the Effectiveness of a Rudder Under One-engine Inoperative Condition **Phassawat Leelaburanathanakul** Chulalongkorn University, Thailand
13:30-13:45	**M029**	Simulation and Experiment Study on Lubrication Performance and Fatigue Mechanism of White Alloy Journal Bearing **Ning Ding** Shanghai Jiao Tong University, China
13:45-14:00	**M010**	Automatic Surface Defect Inspection System Using Convolutional Neural Networks **Xiaoliang Zhu** Hitachi America, Ltd. Research & Development Division, USA
14:00-14:15	**M034**	Study on the Capacity Performance of Journal Bearings with Different Spiral Groove Structures by CFD Method **Le Zhang** Chongqing Yuejin Machinery Co., Ltd., China
14:15-14:30	**M0007**	Improvement of Electric Aircraft Endurance through Propeller Optimization via BEM-CFD Methodology **Jesus Jimenez** Universidad Pontificia Bolivariana, Colombia

14:30-14:45	**M040**	Cyclic Behavior of CFRP as Diagonal Ties and Anchors to Rehabilitate Severe Damaged Masonry Wall **Guillermo Huaco** Peruvian University of Applied Sciences UPC, Peru
14:45-15:00	**Break**	
15:00-17:00	**Part II**	
15:00-15:15	**M0003**	Numerical Investigation of Fluid Flow, Characteristics of Thermal Performance and Enhancement of Heat Transfer of Corrugated Pipes with Various Geometrical Configurations **Ahmed Ramadhan Al-Obaidi** Al-Mustansiriyah University, USA
15:15-15:30	**M011**	Waste Elimination Model Based on Lean Manufacturing and Lean Maintenance to Increase Efficiency in the Manufacturing Industry **Paola Priscilla Aucasime Gonzales** Universidad Peruana de Ciencias Aplicadas, Peru
15:30-15:45	**M037**	Design of a Separation Machine Using Pneumatic System Combined with Sieve Vibration for Removing Parchment Coffee from Robusta Green Coffee Bean **Warunee Limmun** King Mongkut's Institute of Technology Ladkrabang, Prince of Chumphon Campus, Thailand
15:45-16:00	**M021**	Waste Reduction with Lean Manufacturing Model in an Alpaca Wool Workshop **Jazmín Magaly Cristóbal Quispe** Universidad Peruana de Ciencias Aplicadas, Peru
16:00-16:15	**M036**	Seismic Performance and Fragility Functions of Confined Masonry Old Infrastructure with Handmade Bricks **George Hamiltong Gonzales** Peruvian University of Applied Sciences UPC, Peru
16:15-16:30	**M0009**	Experimental and Implementation of Robust Control Via Floating Air Levitation and Balancing Rotary Inverted Pendulum **Suppachai Howimanporn** King Mongkut's University of Technology North Bangkok, Thailand

16:30-16:45	**M039**	Buckling of Micropolar beams by an Improved First Deformation Theory **K N Betancourt** Universidad Peruana de Ciencias Aplicadas, Peru
16:45-17:00	**MT07**	A Risk Control Framework for Safe Manufacturing Workstations in View of COVID-19 **Ebly Sanchez**, Knut Akesson Volvo Group Truck Operations, Greensboro, USA

Thank you for your attendance!
Hope we could meet next time!!