

MSM Conference Program

20-22 May 2026 ENSEM Casablanca - Morocco

Wednesday / May 20, 2026

08h00 - 09h00	Reception of participants	
09h00 - 09h45	<p>Opening words : Prof. M. LKHIDER, Vice President of Hassan II University of Casablanca in Charge of Scientific Research, Cooperation and Partnership Prof. A. NADDAMI, Director of ENSEM Casablanca Prof. H. RHIMINI, Director of the LM2I Laboratory</p>	
Chairman Pr. Z. EL MASKAOUI / Pr. L. → Auditorium		
09h45 - 10h30	<p>Numerical Simulation of Metal Cutting Pr. El Hassan BOUDAIA, ESTC, Casablanca - Morocco</p>	
10h30 - 10h45	COFFEE BREAK	
10h45 - 11h30	<p>Science, Engineering and Philosophy in the Era of Construction and Industry 4.0 PES, Hassan II University of Casablanca – Philosopher – President of ASTM Pr. Lahbib BOUSSHINE, ENSEM, Casablanca – Morocco</p>	Keynote Lecture
11h30 - 12h15	<p>On the Restoration of Structures at the Volubilis Archaeological Site: Structural Pathologies, Experimental Investigations and Modeling Approaches Pr. Ali CHAABA, ENSAM, Meknes - Morocco</p>	
12h15 - 14h00	LUNCH	
Chairman Pr. H. RHIMINI → Auditorium		
14h00 - 14h45	<p>Structural Optimization by Limit Analysis Pr. Mustapha BIDEQ, ENSAS, Safi – Morocco</p>	

14h45 – 15h30	Acoustic Vibration Pr. Philippe Leclaire, Europe Bourgogne University, Dijon - France	Oral Session
15h30 – 16h15	Valorization of Fire-Damaged Materials: Thermo-Mechanical Behavior of Early-Age Reinforced Concrete Dr. Hicham DARNIF – SMM SOCODAM DAVUM - Morocco	
16h15 - 16h30	COFFEE BREAK	
Digital Twin & IoT for Mechanical Monitoring → Salle 01 Chairman Pr. M. FARAH		
16h30 – 16h45	Digital Innovation in Engineering Education: A Virtual Laboratory for Mechanical and Industrial Training in Morocco ENSEM's case study — Khadija Talbi,	
16h45 – 17h00	IoT-Enabled Digital Twin for Vibration Monitoring of Mechanical Structures: Concepts, Architecture, and Research Perspectives — Hind Bey, Essaadia Azelmad, Lahbib Bousshine, Zakaria El Maskaoui, Salah Eddine Jalal,	
17h00 – 17h15	Towards a Smart IoT-Based Digital Twin Framework for Axial Compression Testing of Thin-Walled Structures — Fatima Zahra Mourade, Lahbib Bousshine, Zakaria El Maskaoui, Essaadia Azelmad, Salah Eddine Jalal,	
Composites & Polymers: Mechanical Behavior → Salle 02 Chairman Pr. H. IDRISSI		
16h30 – 16h45	Behavior of Thermoplastic Piping Materials (PVC and CPVC) under Hydrothermal Aging — Hind Bennis, Rabiaa Elkori, Abdelilah Hachim, Anas El Maliki, Khalid El Had, Sara Sandabad,	
16h45 – 17h00	Comparative Assessment of Tsai–Hill and Tsai–Wu Criteria under Thermo-Mechanical Loading — Slimane Debbaghi,	
17h00 – 17h15	Enhancement of Geopolymer Composite Properties Using Alkali-Treated Doum Palm Fibers — Said Ighir, Hassan Chkala, Nour-Eddine El Mansouri,	
17h15 – 17h30	Experimental Study of the Viscoelastic Behavior of Injected Polypropylene/Short Hemp Fiber Biocomposites - Basma BENHADOU, Lahcen Safraoui, Mariam BENHADOU, Abdellah HADDOUT	
Structural Integrity & Numerical Simulation → Salle 03 Chairman Pr. I. EL HANTATI		
16h30 – 16h45	Finite Element Modeling of the Interaction Between Real Corrosion Defects in a Pipeline — Youssef Mikdam, Bouchra Saadouki,	
16h45 – 17h00	Numerical Simulation of the Thermal Behavior of a Reinforced Concrete Beam Exposed to Fire: Mesh Sensitivity Study and Validation — Assia Morchid,	
17h00 – 17h15	Use of Tekscan Pressure Sensors in Hydrodynamic Impact Applications — Aboulghit El Malki Alaoui,	
Thursday / May 21, 2026		
Chairman Pr. H. MALIL → Auditorium		Keynote
09h00 - 09h45	From Biaxial to Triaxial Braids : simulation-driven optimization of composite VDV structures Dr. Choukri ELGHERYB – SAFRAN ENGINEERING SERVICES, Morocco	

09h45 - 10h30	Advanced Numerical Modeling and Optimization of Mechanical and Wind Energy Systems Pr. El Mostapha BOUDI , EMI, UMV, Rabat, Morocco
10h30 – 10h45	COFFEE BREAK
Computational Modeling and Advanced Materials under Complex Physical Phenomena → Salle 01 Chairman Pr. L. SAFRAOUI	
10h45 - 11h00	Bursting and Regular Oscillations in time-modulated Taylor-Couette flow under quasiperiodic forcing - Mehdi Riahi,
11h00 - 11h15	Dissolution and recrystallisation of lithium - molybdenum - phosphorus oxide glasses — Lahbib Abbas, Lahcen Bih, Abdelaziz Ait Sidi Mou, Mohamed Jabha, Zahra Ramzi,
11h15 – 11h30	Nanoindentation study of Cu thin films using the molecular dynamics method: Effect of loading rate - Mohamed Ait Ichou, Hassane Mes-Adi, Khalid Saadouni,
12h00 – 14h00	LUNCH
Guided Waves & Non-Destructive Evaluation → Salle 01 Chairman Pr. B. SAADOUKI	
14h00 - 14h15	Wave Propagation in Generalized Continuum Media by a Homogenization Approach — Ben-Hassi Zakaria
14h15 - 14h30	Pipeline Structural Health Monitoring of Multilayer Composite Using Ultrasonic Guided Waves: 2D-FFT Validation and RAPID β -Sensitivity Analysis for Single- and Dual-Defect Cases - Hoda Ben Chraa, Ismaïne Zitouni, Mohamed Ajakane, Hassan Rhimini,
14h30 - 14h45	Numerical Investigation of Dispersion, Attenuation, and Mode Shapes in Anisotropic Viscoelastic Multilayer Plates Using a Chebyshev Spectral Method — Ismaïne Zitouni, Hassan Rhimini, Abdelkerim Chouaf,
Earthen Construction Materials and Sustainable Reinforcement Techniques → Salle 01 Chairman Pr. A. RIAD	
14h45 - 15h00	Performance of Clay-Based Earth Bricks with Varying Sand Content: A Case Study of Lendi Soil, Douala — Ekoum Ewandjo Nkoue, Eno Roger, Kenmogne Fabien, Bahel Benjamin
15h00 - 15h15	Reinforcement of Compressed Earth Bricks Using Locally-Sourced <i>Triumfetta pentandra</i> Fibers: Physical and Mechanical Evaluation — Eno Roger, Ndé Ngnihamyé Martial, Ewandjo Nkoue Ekoum, Kenmogne Fabien
15h15 – 15h30	Assessment of the Structural Response of Different Steel Buildings under Seismic Lateral Loading - Ndoubahidi Appolinaire , Ahmed El haouzi , Abdelaziz Timesli
15h30 – 15h45	Study of the Combined Effect of Injection Parameters and Nucleating Agents on the Mechanical Properties of Injected Polypropylene - Lahcen Safraoui, Basma BENHADOU, Mariam BENHADOU, Abdellah HADDOUT
16h00 - 16h15	COFFEE BREAK
Energy Systems and Industrial Excellence Optimization → Salle 01 Chairman Pr. M. ABADI / Pr. Z. AIT HADDOUCHANE	
16h15 – 16h30	Design optimization of hydrodynamic non-conventional pad bearing for improved tribological efficiency - Ihsane Messoude, Samir Aghzer,

16h30 – 16h45	Quantitative Analysis of Transport Efficiency and Cost Drivers in Hydrogen Logistics - Oumaima El Farnini, Mourad Trihi.		
16h45 – 17h00	Topology optimization for self-supported FDM structures - Intissar Antar, Bassam Al Nahari, Khalid Zarbane, Mohamed El Oumami		
17h00 – 17h15	Automated Defect Stratification in Aerospace Aluminum: A Physics-Informed Hierarchical Approach - Houssine Laaz, Salah Nissabouri, and Hassan Rhimini		
Friday / May 22, 2026			
Chairman Pr. A. EL MALIKI → Auditorium			
09h00 - 09h45	Valorization of Local Materials for Sustainable Construction Applications Dr. Houssine EJJAOUANI, LPEE, Morocco	Keynote Lecture	
Additive Manufacturing: Characterization & Benchmarking → Salle 01 Chairman Pr. A. OUBALOUCH			
09h45 – 10h00	A Review of Test Parts for Dimensional Accuracy Evaluation and the Need for a New Benchmark Part — El Hani Youssef, Oubalouch Aissa, Zarbane Khalid	Oral Session	
10h00 – 10h15	Comparative Analysis of Crack Propagation Resistance in FDM-Printed SENT Specimens: Effect of Raster Orientation in ABS and PLA — Aourik Oumaima		
10h15 – 10h30	Material Characterization of PETG Parts Printed Using Fused Deposition Modelling — Ivan Goran Kovacic, Maja Dundovic, Zeljko Vrcan, Kristina Markovic,		
Additive Manufacturing: Design Optimization & AI → Salle 02 Chairman Pr. A. HEBAZ / Pr. S. AGHZER			
09h45 – 10h00	Lattice Structures for Customized Hip Implants: A Review of Design Approaches and Architectures for Stress Shielding Mitigation — Salma Belaabidia,		
10h00 – 10h15	Non-intrusive Genetic Algorithm – Finite Element optimization framework of steel frames using Eurocode 3. — Mohammed Oubida,		
10h15 – 10h30	Optimization of the design of parts manufactured using additive manufacturing: Contributions of artificial intelligence and integration of DfAM constraints — Samir Imani, Mohammed Nassraoui,		
10h30 - 10h45	COFFEE BREAK		
10h45 – 11h45	POSTER SESSION		
11h45 – 12h00	Closing Meeting		
12h00 - 14h00	LUNCH		