

# Programme / Program

5<sup>ème</sup> Congrès Tunisien de Mécanique / COTUME 2020 / 5<sup>th</sup> Tunisian Congress on Mechanics

## Programme / Program

Lundi matin / Monday morning: 22/ 03 / 2021

8h30– 8h45	<p style="text-align: center;"><b>Ouverture / Opening</b></p> <p>Pr. Tarak Bouraoui : Président du congrès Pr. Tarek Ben Ameer : Président du comité scientifique Dr. Naoufel Ben Moussa : Président du comité d'organisation</p>
8h45– 9h15	<p style="text-align: center;"><b>Conférence Plénière 1 / Plenary Session 1</b></p> <p style="text-align: center;"><b>Prof. Kamel BESBES,</b> Professeur à la Faculté des Sciences de Monastir, DG du CRMN Professeur de la faculté de Sciences de Tunis, Ancien Président Du CNEAR Modérateurs : Pr. Abdelmajid Benamara, Pr. Tarek Ben Ameer</p>

**Lundi matin / Monday morning: 22/ 03 / 2021**

<b>Session 1 / Salle plénière</b>		<b>Session 2 / Salle 1</b>		<b>Session 3 / Salle 2</b>		
Présidents : M. Haddar & H. BelHadjSalah		Présidents : L. Romdhane & A. Maalej		Présidents : H. Sidhom & A. Dogui		
09h15 09h30	Dynamique et vibration des structures / Dynamics and vibration of structures	Procédés de fabrication/ Manufacturing process	<b>ID14</b> – Evaluation of the contact area between two-dimensional powder particles densified by hot isostatic pressing, <a href="#">Locif Redouani</a> , <a href="#">Sara Khilouf</a> , <a href="#">Rebah Laidi</a> , <a href="#">Wassila Tebib</a>	Matériaux : structure et comportement / Materials : Structure and behaviour.	<b>ID16</b> – Numerical study of the flow of zinc during hot-dip galvanization, <a href="#">Jalel Ben Nasr</a>	
09h30 09h45			<b>ID15</b> – Feasibility study of thin cylindrical shapes by incremental forming process (CSPIF), <a href="#">Naceur Ben Jdira</a> , <a href="#">Atef Boulila</a> , <a href="#">Mahfoudh Ayadi</a>		<b>ID18</b> – Isotropic and kinematic hardening laws: plastic behavior of mild steel under shear tests, <a href="#">Olfa Daghfes</a> , <a href="#">Amna Znaidi</a> , <a href="#">Rachid Nasri</a>	
09h45 10h00			<b>ID74</b> – Linear and Geometrically Nonlinear Frequencies and Mode Shapes of Simply Supported Simply Supported Free Free Rectangular Plates with a Point Support at the Free Corner. <a href="#">Ahmed Babahammou</a> , <a href="#">Rhali Benamar</a>		<b>ID20</b> – Etude et modélisation thermique de la cellule solaire InGaN/GaN p-i-n N face, <a href="#">Bilel Chouchen</a> , <a href="#">Mohamed Hichem Gazzah</a> , <a href="#">Hafedh Belmabrouk</a>	
10h00 10h15			<b>ID76</b> – Formulation of New Continuous Element of Pre-stressed Stiffened Circular Cylindrical Shell, <a href="#">Imen Harbaoui</a> , <a href="#">Mohamed Amine Khadimallah</a>		<b>ID38</b> – Using RSM method and desirability function approach to optimize surface integrity in finish hard milling process of AISI H13 tool Steel, <a href="#">Chams Eddine Dakhli</a> , <a href="#">Brahim Ben Fathallah</a> , <a href="#">Mohamed Ali Terres</a>	<b>ID27</b> – CAE-PVD synthesis and characterization of TiN biocompatible coating deposited on titanium alloy for biomedical application, <a href="#">Chokri Ben Aissa</a> , <a href="#">Kaouther Khelifi Khelifi</a> , <a href="#">Khalil Aouadi</a>
10h15 10h30			<b>ID95</b> – Unbalance Vibration reduction of High-Speed Turbochargers Using Active Magnetic Actuator, <a href="#">Hamda Chagraoui</a> , <a href="#">Mourad Saidi</a> , <a href="#">Mohamed Soula</a>		<b>ID44</b> – Prédiction et modélisation de la rugosité de surface basée sur la méthodologie de la surface de réponse en fraisage de face de l'acier XC42 par un cermet, <a href="#">Mohamed Fnides</a> , <a href="#">Brahim Fnides</a> , <a href="#">Mohamed Athmane Yalles</a>	<b>ID35</b> – Raideur Torsionnelle d'une butée Sphérique, <a href="#">Mohamed Trifa</a> , <a href="#">Makrem Arfaoui</a>

10h30– 10h45

Pause / break

Session 4 / Salle plénière		Session 5 Salle 1		Session 6 / Salle 2	
Présidents : A. Zghal & B. Zouari		Présidents : T. Fakhfakh & F. Masmoudi		Présidents : Z. Turki & C. Bradai	
10h45 11h00	<b>ID109</b> – Dynamic Analysis of a Cracked Shaft Using Numerical Simulation., Mohamed Boughazala, Khemais Hamrouni, Abdessattar Aloui	Procédés de fabrication/ Manufacturing process	<b>ID56</b> – Influence of process parameters on the mechanical and geometrical responses of a bilayer sheet during incremental forming, Wifak Ben Abdelkader, Riadh Bahloul	Matériaux : structure et comportement / Materials : Structure and behaviour.	<b>ID48</b> – Classification of marbles provenance using artificial neural Network, Mouna Hammouda, Romdhane Ben Khelifa, Noureddine Ben Yahia
11h00 11h15	<b>ID134</b> – Vibration control of a rotor using smart bearings with magneto-rheological elastomer supports, Faiza Sakly, Mnaouar Chouchane		<b>ID61</b> – Simulation of CAD/CAM contour deviations, El Bechir Msaddek		<b>ID52</b> – Identification inverse des paramètres d'écroissage à partir des essais de gonflement hydraulique à chaud en prise en compte l'anisotropie du matériau, Wardi Makhloufi, Mohamed Toumi Nasri, Mahfoudh Ayadi
11h15 11h30	<b>ID148</b> – A JAYA based algorithm for a discrete rotor design optimization, Ibrahim Mlaouhi, Najeh Ben Guedria, Chokri Bouraoui		<b>ID64</b> – Experimental and numerical investigation of hole-flanging process with rubber punch, Lachhel Belhassen, Sana Koubaa, Mondher Wali, Fakhreddine Dammak		<b>ID62</b> – Deep rolled surface improvement of the AISI 304L using cryogenic cooling, Khouloud Gharbi, Naoufel Ben Moussa, Nabil Ben Fredj
11h30 11h45	<b>ID151</b> – Study of the fatigue behaviour of an aluminium one-component polyurethane adhesive joint for bus structures, Yasmina Boutar, Sami Naimi, Salah Mezlini, Ricardo J.C Carbas, Lucas F.M Da Silva, Moez Ben Sik Ali		<b>ID67</b> – Residual stress induced by laser welding of interstitial free (IF) steel: simulation approach, Latifa Arfaoui, Amel Samet, Amna Znaidi		<b>ID72</b> – Corrélation entre transformation martensitique et mise en forme par emboutissage des tôles en acier inoxydable austénitique. Hedi Bargui, Soufiene Ouerfelli
11h45 12h00	<b>ID156</b> – Optimal LQR controller for active vibration control of a rotor bearing system using piezoelectric patches, Maryem Brahem, Mnaouar Chouchane		<b>ID80</b> – Orthogonal cutting of carbon fiber reinforced polymer composites using finite element modeling, Amira Hassouna, Slah Mzali, Farhat Zemzemi, Salah Mezlini		<b>ID78</b> – Modeling of TA6V titanium alloy by an identification strategy: Biomechanical application, Rym Harbaoui, Olfa Daghfes, Amna Znaidi
12h00 12h15	<b>ID19</b> – Numerical SPH-FEM investigation of a water jet impacting a fixed Titanium target: study of the slope and initial velocity effects, Ikram Ben Belgacem Barhoumi, Lotfi Cheikh, El Manaa Barhoumi, Wacef Ben Salem		<b>ID94</b> – The impact of geometric complexity on printing time and cost for Additive manufacturing (AM) Process, Sabrine Ben Amor, Antoine Tahan, Borhen Louhichi		<b>ID82</b> – Finite element analysis of nonlinear behavior of FG Cantilever, Hanan Jrad, Jamel Mars, Abir Bouhamed, Mondher Wali, Fakhreddine Dammak

12h15– 14h00

Déjeuner / Lunch

## Conférence Plénière 2 / Plenary Session 2

Prof. Tarek BEN ZINEB.

Modérateurs : Pr. Tarak Bouraoui, Pr. Salah Mezlini

14h00 – 14h30

		Session 7 / Salle plénière	Session 8 / Salle 1	Session 9 / Salle 2
		Présidents : J. Louati & N. BenSalah	Présidents : M. Chrigui & C. Karra	Présidents : N. Ben Fredj & A. Ben Cheikh Larbi
14h30 14h45	Procédés de fabrication/ Manufacturing process	<b>ID121</b> – Optimal part orientation in the additive manufacturing process based on tolerancing, <b>Ahmed Elayeb, Anis Korbi, Mehdi Tlija, Borhen Louhichi</b>	<b>ID32</b> – CAD/tolerancing integration: A Novel method for the tolerance analysis of cylindrical parts assemblies considering the manufacturing defects and the deformations of non-rigid components, <b>Anis Korbi, Amira Soued, Ahmed Elayeb, Mehdi Tlija, Borhen Louhichi, Abdelmajid Benamara</b>	<b>ID83</b> – Finite element modeling of energy-state in combined puncture/cutting of soft material by a pointed blade, <b>Marwa Gzaiel, Ennouri Triki, Abdelwahed Barkaoui, Moez Chafra</b>
14h45 15h00		<b>ID124</b> – Geometrical optimization of the conformal cooling system for a plastic injection mould, <b>Mouna Ben Slama, Sami Chatti</b>	<b>ID59</b> – An integrated tool for modular disassembly plans generation and evaluation, <b>Imen Belhadj, Moncef Hammadi, Moez Trigui, Nizar Aifaoui</b>	<b>ID86</b> – Experimental Study on Mechanical Properties of Papercrete, <b>Nourhene Allaya, Myriam Laroussi Hellara, Abdelwaheb Dogui</b>
15h00 15h15		<b>ID137</b> – Comparison between Mixed Eulerian-Lagrangian approaches in Finite Element simulation of Friction Stir Spot Welding, <b>Nasra Hannachi, Ali Khalfallah, Dulce Rodrigues, Carlos Leitao</b>	<b>ID84</b> – A novel CAD model for the tolerance analysis of planar parts assemblies with form defects, <b>Amira Soued, Anis Korbi, Mehdi Tlija, Borhen Louhichi</b>	<b>ID87</b> – Caractérisation des briques en terre cuite incorporées par les boues de désencrage, <b>Hajer Makni</b>
15h15 15h30		<b>ID159</b> – On the corrosion resistance improvement of stainless steel obtained by SLM <b>Naoufel Ben Moussa, Houda Yahiaoui ; Mohamed Habibi ; Farhat Ghanem ; Nizar Ben Salah</b>	<b>ID92</b> – Matrice de probabilité de propagation d'une modification au sein d'un modèle CAO., <b>Ameni Eltaief, Borhen Louhichi, Sebastien Remy</b>	<b>ID89</b> – Mechanical Properties of Biodegradable Composites Based on Poly (Butylene Succinate) and Palm Trunk Fibers Treated with Synergistic Enzymes, <b>Rania Chaari</b>
15h30 15h45		<b>ID175</b> – Numerical prediction of melt pool size and defect appearing during selective laser melting process of AISi10Mg at different scan speeds, <b>Mouna Ben Slama, Sami Chatti</b>	<b>ID112</b> – Computer Aided Tolerancing: Tool for tolerance analysis and allocation, <b>Maroua Ghali, Nizar Aifaoui</b>	<b>ID90</b> – The use of FGM dental implant to improve biocompatibility: 3D FEM Analysis, <b>Sameh Elleuch, Hanen Jrad, Mondher Wali, Fakhreddine Dammak</b>
15h45 16h00		<b>ID176</b> – Practical application of Taguchi approach for optimization of process injection molding parameters for PC/ABS blend <b>Fatma Hentati, Neila Masmoudi</b>	<b>ID130</b> – Assembly path generation with obstacle considering, <b>Salma Ben Said, Riadh Benhadj, Moez Trigui, Nizar Aifaoui, Moncef Hammadi</b>	<b>ID91</b> – Influence of diameter of functionally graded biomaterial implant on stress distribution, <b>Sameh Elleuch, Hanen Jrad, Mondher Wali, Fakhreddine Dammak</b>
		Méthodologie de Conception et Robotiques/Design Methodology and Robotics		Matériaux : structure et comportement / Materials : Structure and behaviour.

16h00– 16h15

Pause / break

Session 10/ Salle plénière		Session 11/ Salle 1		Session 12/ Salle 2	
Présidents : F. Chaari & F. Dammak		Présidents : M. Chouchane & M. Mbarek		Présidents : R. Eleuch & S. Chatti (ENIM)	
16h15 16h30	<b>ID96</b> – Effect of process parameters on surface roughness while cutting glass/polymer composite laminates with abrasive water jet, Faten Chaouch, Ated Ben Khalifa, Redouane Zitoune, Mondher Zidi	Méthodologie de Conception et Robotiques/Design Methodology and Robotics	<b>ID135</b> – Environmentally measurable indicator model based on machining features and cutting pa-rameters, Hadhami Beslama, Raoudha Gaha, Abdelmajid Benamara	Matériaux : structure et comportement / Materials : Structure and behaviour	<b>ID126</b> – Variable Amplitude Loading effect on the residual stress distribution ahead of the crack tip, Amina Remadi, Ahmed Bahloul, Chokri Bouraoui
16h30 16h45	<b>ID107</b> – Influence of applied voltage on corrosion behavior of TiO2 thin films, Hafedh Dhifelaoui, Kaouther Khelifi, Najoua Barhoumi, Ahmed Ben Cheikh Larbi		<b>ID145</b> – Computer Aided Inspection by Reverse Engineering for Reproduction of Gear Teeth, Rabia Selloum, Hacene Ameddah, Mourad Brioua		<b>ID129</b> – Study of wear and corrosion performance of fluoropolymer PFA electrostatically deposited on 304 steel, Najoua Barhoumi, Hafedh Dhiflaoui, Kaouther Khelifi, Amir Ben Rhouma, Faouzi Hamdi, Ahmed Ben Cheikh Arbi
16h45 17h00	<b>ID116</b> – Study of Free Vibration Analysis of Advanced Composite Plates (FGP) with Porosities. Slimane Merdaci, Hakima Belghoul, Adda Hadj Mostefa		<b>ID179</b> – Contrôle de la Production d'un Système Manufacturier imparfait sous une politique zéro-stock. H. BOUABID K. DHOUIB; A. GHARBI		<b>ID131</b> – Experimental determination of Fe-30Mn-6Si-5Cr shapememory alloy thermomechanical model parameters, Achref Sellami, Malek Megdiche, Tarak Bouraoui, Tarak Ben Zineb
17h00 17h15	<b>ID123</b> – Identification de la chaleur latente et de la fraction solide au cours de la solidification de la fonte GS600, Dorsaf Khalifa, Foued Mzali				<b>ID133</b> – Numerical analysis of kinematic hardening effect incyclic loading of Aluminum alloy 2024, Naila Hfaiedh, Olfa Daghfas, Amna Znaidi, Housseem Badreddine
17h15 17h30	<b>ID13</b> - Evaluation of intense African dust events and contribution to PM10 concentration in Tunisia. Houda Chtioui, Karim Bouchlaghem, Mohamed Hichem Gazzah				<b>ID136</b> – Effect of additive manufacturing parameters on 316L SS surfaces characteristics. Houda Yahyaoui, Naoufel Ben Moussa, Mohamed Habibi, Nizar Ben Salah

**Mardi / Tuesday - 23 / 03 / 2021 - Matin / Morning**

**8h30 – 9h00**

**Conférence Plénière 3 / Plenary Session 3**

**Prof. Frédéric MARTIN**

**Biomécanique et médecine : cas de la fibrose et de l'oncogénèse**

Modérateurs : Pr. Fafa Ben Htira, Dr. Tayssir Rezgui

**9h00– 10h30**

**Table Ronde : Mécanique au service de la médecine :**

Collaborations entre médecins et chercheurs en Tunisie : acquis, opportunités et défis.

Modérateurs : Pr. Fafa Ben Htira, Dr. Tayssir Rezgui

**10h30– 10h45**

**Pause / break**

Session 13 / Salle plénière		Session 14 Salle 1		Session 15 / Salle 2	
Présidents : M. Dammak & M. Kharrat		Présidents : S. Chatti (ISSAT) & L. Kairaouani		Présidents : T. Mabrouki & W. Ben Salem	
10h45 11h00	<b>ID114</b> – Lumbar spine dynamic during High Heeled Gait: musculoskeletal modeling contribution, Taysir Rezgui, Khalik Ben Mansour, Frederic Marin	Modélisation et calcul des structures / Structure Modelling and Computation.	<b>ID26</b> – Frequency response of FGM beams using a finite beam element, Souhir Zghal, Sourour Trabelsi, Fakhreddine Dammak	Matériaux : structure et comportement / Materials : Structure and behaviour.	<b>ID140</b> – Simulation numérique de l'essai de nano-indentation sphérique sur les amorphes métalliques, Bechir Bouzakher, Hamza Riahi, Tarek Benameur
11h00 11h15	<b>ID30</b> – Focus on rehabilitation exercises in view of cable-driven parallel robot design, Ferdaws Ennaïem, Med Amine Laribi, Abdelbadiâ Chaker, Juan Sebastián Sandoval Arévalo, Sami Bennour, Abdelfattah Mlika, Lotfi Romdhane, Saïd Zeghloul		<b>ID29</b> – Mechanical behavior of bonded of composite Fiber-Reinforced Polymer (FRP) rods into glulam timber, Slim Ben Elechi, Mourad Khelifa, Marc Oudjene, Mourad Rahim		<b>ID141</b> – Optimisation des paramètres de galetage des pièces en amorphes métalliques à base de Zirconium, Mohamed Abdellahi Senhoury, Fathi Gharbi, Tarek Benameur
11h15 11h30	<b>ID53</b> – Identification of optimized cranial bone constitutive model parameters at high strain rate using Polymeric Split Hopkinson Pressure Bar test results, Seddik Shiri, Julien Halgrin		<b>ID54</b> – Sensitivity of the cortical bone mechanical behaviour according to the fabric tensor variation, Tesnim Kraïem, Abdelwahed Barkaoui, Tarek Merzouki		<b>ID142</b> – Development of a new ring hoop shear test for the mechanical characterization of tubular materials, Zied Ktari, Ali Khalfallah, Carlos Leitao
11h30 11h45	<b>ID93</b> – 3D printed cellular structures of PLA for engineering artificial bone, Naserddine Ben Ali, Dorra Hammami, Mohamed Khelif, Chedly Bradai		<b>ID55</b> – Bone remodeling model coupling damage and inhibitory signal parameters for bone interface, Imed Soltani, Abdelwahed Barkaoui		<b>ID144</b> – Improvement of mechanical properties and corrosion resistance of Ti6Al4V alloy and 316L stainless steels by TiN coatings for biomaterial applications, K. Khelifi, C. Ben Aïssa ; H. Dhifelaoui ; N. Barhoumi ; A. Ben Rhouma ; A. Ben Cheikh Larbi
11h45 12h00	<b>ID132</b> – An experimental protocol for studying the human trunk behavior under dynamic disturbances, Ferdaous Moalla, Sadok Mehrez, Fehmi Najar		<b>ID57</b> – X-FEM Numerical analysis of a pressurized cracked shell, Amir Sakhraoui, Fayza Ayari		<b>ID147</b> – Influence de la vitesse de glissement et de la charge sur le comportement en friction et usure du revêtement FEP déposé sur l'acier 304, Faouzi Hamdi, Najoua Barhoumi, Kaouther Khelifi
12h00 12h15			<b>ID58</b> – Analyse numérique par la méthode X-FEM et extraction des FIC des coques fissurées sous pression, Amir Sakhraoui, Fayza Ayari		<b>ID150</b> – Effect of thermo-mechanical treatments and conditions on the pseudoelastic damping behavior of the Fe-30Mn-6Si-5Cr Shape Memory Alloy, Malek Megdiche, Achref Sellami, Tarak Bouraoui, Tarak Ben Zineb

12h30– 14h00

Déjeuner / Lunch

14h00 – 14h30

Conférence Plénière 4 /  
Plenary Session 4

Prof. Martine BEN AMAR

Biomécanique et médecine : cas de la fibrose et de l'oncogénèse

Session 16/ Salle plénière		Session 17/ Salle 1		Session 18/ Salle 2	
Présidents : T. Khir & R. Fathallah		Présidents : K. Sai & A. Mlika		Présidents : W. Bouzid & M. Soula	
14h30 14h45	<b>ID143</b> – Investigation of electrical discharge machining effects on Ti6Al4V long Gamma nail surface properties, Ons Marzougui, Naoufel Ben Moussa, Farhat Ghanem	Modélisation et calcul des structures / Structure Modelling and Computation.	<b>ID60</b> – Numerical study of damage and brittle fracture by using the variational approach: comparison between quasi-static and dynamic cases, Marwa Dhahri, Radhi Abdelmoula, Jia Li, Yamen Maalej	Matériaux : structure et comportement / Materials : Structure and behaviour.	<b>ID154</b> – A multiaxial fatigue criteria for an aluminum alloy, Adel Hamdi, Chen Shen, Abderrahim Talha, Noureddine Benseddiq
14h45 15h00	<b>ID117</b> – Effect of cuttlebone filler on tribological response of HDPE, Amira Salem, Walid Bensalah, Salah Mezlini		<b>ID79</b> – Buckling response of nanocomposite plate under uniaxial in-plane loads Souhir Zghal, Sourour Trabelsi, Fakhreddine Dammak		<b>ID155</b> – Effect of heat-aged on the dissipative energy of cyclically loaded CB filled SBR, Amina Dinari, Makram Chaabane, Tarek Benameur
15h00 15h15	<b>ID120</b> – Effect of mollusc shell filler on the tribological and mechanical properties of Ultra-Height Molecular Weight Polyethylene, Besma Sidia, Walid Bensalah		<b>ID98</b> – Free vibration analysis of FGM shell structures with a Higher Order Shear Strain Enhanced Solid-Shell Element, Elouni Chebbi, Abdessalem Hajlaoui, Fakhreddine Dammak		<b>ID157</b> – Investigation of mechanical behavior of thermoset composites reinforced with Posidonia Oceanica fibers, Youssef Ben Slim, Manel Haddar, Sana Koubaa
15h15 15h30	<b>ID146</b> – Fatigue behavior study of the biodegradable cardiovascular stent, Hacene Ameddah, Salim Lounansa, Hammoudi Mazouz		<b>ID99</b> – A Higher Order Shear Strain Enhanced Solid-Shell element for thermal buckling analysis of FGM structures, Abdessalem Hajlaoui, Hanen Mallek, Elouni Chebbi, Fakhreddine Dammak		<b>ID158</b> – FE investigation of the J-integral and tearing energy T parameters for NR and SBR materials, Adel Hamdi A., Boulenaouar, Z. Baccouch
15h30 15h45			<b>ID100</b> – A Higher Order Shear Strain Enhanced Solid-Shell element for Post-buckling analysis of carbon nanotube reinforced FG shells, Elouni Chebbi, Abdessalem Hajlaoui, Fakhreddine Dammak		<b>ID168</b> – Blue-emitting phosphors M2P2O7:1%Eu <sup>2+</sup> (M= Ca, Sr, Ba) pyrophosphates for white LED applications, Mona Derbel, Aïcha Mbarek
15h45 16h00			<b>ID172</b> – Optimization of truss structure problem using an improved genetic algorithm, Wassim Harizi, Mohamed Sallami		<b>ID169</b> – Effect of recycling process on the properties of polyamide 6 reinforced with glass fibre, Manel Haddar, Ameer CHTOUROU ; Sana KOUBAA ; Ahmed FRIKHA



**Mercredi matin / Wednesday morning 24 / 03 / 2021****08h30 – 09h00****Conférence Plénière 5 /  
Plenary Session 5****Prof. Henda ELFKIH****Publications scientifiques en Génie Mécanique en Tunisie : Etude bibliométrique**

Session 19 / Salle plénière		Session 20 Salle 1	Session 21 / Salle 2			
Présidents : H. Ben Dely & R. Nasri		Présidents : Z. Bouaziz & F. Najjar	Présidents : J. Bessrour & L. Ammar			
9h00 9h15	Matériaux : structure et comportement / Materials : Structure and behaviour	Mécanique des Fluides et Energie, Transfert de masse et de chaleur/Fluid mechanics,	Matériaux : structure et comportement / Materials : Structure and behaviour			
9h15 9h30				<p><b>ID170</b>– Study of the mechanical behavior of hybrid composites reinforced by natural and synthetic fibers, Naoufel Ben Moussa, Mohamed Habibi ; Nizar Ben Salah</p>	<p><b>ID37</b> – Characterization of kinetics of thermal decomposition of densified wood materials from isothermal thermogravimetric experiments, Mourad Khelifa, Yann Rogaume</p>	<p><b>ID177</b> – Parametric analysis of a piezoelectric flexoelectric energy harvesting nanosystem Sourour Baroudi, Fehmi Najjar</p>
9h30 9h45				<p><b>ID171</b>– Experimental and numerical investigation of the Tensile properties of GMA and GTA welding joints, Sleh Chayoukhi ; Ali Zghal</p>	<p><b>ID110</b> – Energetic and Economic Study of Geothermal System in Tourist and Therapeutic Hotel, Mohamed Amine Zainine, Taoufik Mezni, Fakhreddine Abbassi, Mohamed Ali Dakhlaoui, Ali Zghal</p>	<p><b>ID178</b> – Multi-scale analysis of the aging of composite / concrete bonding subjected to monotonic and cyclic mechanical loadings. Khaoula Idrissa, Marco Lamberti; Aurélien Maurel-Pantel; Frédéric Lebon; Noamen Guermazi</p>
	<p><b>ID173</b> – Creep type nonlinear viscoelastic behavior of mirror epoxy resin, Mohsen dardouri, A. Fellah ; A. Aloui ; F. Gmira ; M. Haddar</p>	<p><b>ID115</b> – Study of Heat and Mass Transfer Mechanisms in a Turbulent Fluidized Bed, Taoufik Mezni, Mohamed Amine Zainine, Fakhreddine Abbassi, Mohamed Ali Dakhlaoui, Ali Zghal</p>	<p><b>ID180</b> – Flexural behavior and fracture characteristics of polymeric pipes under curved three point bending (CTPB) tests. Houcine JEMII; Amir BAHRI; Rym TAKATAK; Dalila HAMMICHE; Noamen GUERMAZI</p>			
<b>10h30– 10h45</b>		<b>Pause / break</b>				

Session 22 / Salle plénière		Session 23 Salle 1		Session 24 / Salle 2	
Présidents : S. Choura & S. Abid		Présidents : M. Chafra & F. Mzali		Présidents : M. Zidi & M. Ayadi	
10h15 10h30	<b>ID174</b> – Reprocessing of composites based on polypropylene reinforced with natural fibre, <a href="#">Ameur Chtourou</a> , <a href="#">Manel Haddar</a> ; <a href="#">Sana Koubaa</a>	Mécanique des Fluides et Energie, Transfert de masse et de chaleur/Fluid mechanics, energy, Mass	<b>ID152</b> – Energy forms contributing to deep machining by continuous power CO2 laser, <a href="#">Neila Jebbari</a> , <a href="#">Lamia Troudi</a>	Méthodologie de Conception et Robotiques/Design Methodology and Robotics	<b>ID118</b> – Optimization of diffuser angle to reduce the drag of a light car, <a href="#">Kamel belhadj</a> , <a href="#">Ali Helali</a> , <a href="#">Najeh Ben Guedria</a> , <a href="#">Chokri Bouraoui</a>
10h30 10h45	<b>ID103</b> – Caractérisation tribo-mécanique de revêtements micro-composites graphite/polymère déposés sur un substrat polymère, <a href="#">Mohamed Abid</a> , <a href="#">Mongi Bougelben</a> , <a href="#">Mohamed Kharrat</a> , <a href="#">Maher Dammak</a>		<b>ID164</b> – Reduction of NOx exhausted from diesel engine using activated carbon, <a href="#">Fethi Hamdi</a> , <a href="#">Hanen Nouri</a> ; <a href="#">Zeineb Labiadh</a> ; <a href="#">Mouldi Chrigui</a>		<b>ID127</b> – Etude des phénomènes thermiques dans les procédés de fabrication additive, application au "Selective Laser Melting", <a href="#">Marwa Jaziri</a> , <a href="#">Slimen Attyaoui</a> , <a href="#">Khalil Mansouri</a> , <a href="#">Walid Hammami</a>
10h45 11h00	<b>ID85</b> – Determination of hyper-viscoelastic parameters of elastomeric materials, <a href="#">Lachhel Belhassen</a> , <a href="#">Sana Koubaa</a> , <a href="#">Mondher Wali</a> , <a href="#">Fakhreddine Dammak</a>		<b>ID165</b> – Étude de la technologie (DFI) d'injection canalisée du carburant <a href="#">Warda Ben Atia</a> , <a href="#">Ridha Ennetta</a>		<b>ID167</b> – Performance study of a Lucid spherical rotor <a href="#">Mabrouk Mosbahi</a> , <a href="#">Dorra Ghodhbani</a> ; <a href="#">Mouna Derbel</a> ; <a href="#">Zied Driss</a>
11h00 11h15	<b>ID111</b> – Elaboration et caractérisation tribo-structurale de composites PEBDL/Cu en poudre, <a href="#">Mabrouka Akrouf</a> , <a href="#">Basma Ben Difallah Ep Ben Said</a> , <a href="#">Fahmi Bedoui</a> , <a href="#">Salima Bouvier</a> , <a href="#">Mohamed Kharrat</a> , <a href="#">Abdeljalil Jourani</a> , <a href="#">Maher Dammak</a>		<b>ID166</b> – Performance study of helical Darrieus rotor, <a href="#">Mabrouk Mosbahi</a> , <a href="#">Mariem Lajnef</a> ; <a href="#">Mouna Derbel</a> ; <a href="#">Zied Driss</a> ,		
11h15 11h30	<b>ID138</b> – Strategy of Determination of Mechanical Properties of Woven flax-reinforced polypropylene Composite, <a href="#">Rihab Messadi</a> , <a href="#">Sana Abid</a> , <a href="#">Tarek Hassine</a> , <a href="#">Hachmi Ben Dali</a> , <a href="#">Marie-France Lacrampe</a>				

12h00 – 12h15

CLÔTURE