

CAM2011

Congrès Algérien de Mécanique
November 14–17, 2011 • Guelma, Algeria

Second Call for Papers / Second Appel à Communication

Participants are invited to submit their papers (maximum of 10 pages) for oral or poster presentation. The paper as a MsWord file (.doc) single column should be sent by email to the following address: cam2011.dz@gmail.com. The authors have to make sure that their paper is related to one of the congress topics.

Deadline for communication submission February 28, 2011
Notification of acceptance May 20, 2011
Corrected and final paper June 20, 2011
Deadline of Congress Registration June 20, 2011
Deadline of Registration Fees Payment August 31, 2011

Accepted papers (oral presentations and posters) will be included in the conference proceedings which will be available at the opening of the congress and distributed to delegates after payment of registration fees.

Les participants sont invités à soumettre leurs articles (10 pages max.) par présentation orale ou poster. Prière envoyer vos articles en format MsWord en une seule colonne, par e-mail à l'adresse suivante: cam2011.dz@gmail.com. Les auteurs doivent s'assurer que leurs articles relèvent clairement de l'un des thèmes du congrès.

Date limite de soumission des communications 28 février 2011
Notification d'acceptation 20 mai 2011
Articles corrigés 20 juin 2011
Date limite des inscriptions au Congrès 20 juin 2011
Date Limite du paiement des Frais d'inscription 31 août 2011

Les articles sélectionnés pour les présentations orales et posters seront publiés dans le recueil des actes du congrès, disponible le 1^{er} jour des paiements des frais d'inscription.



Email : cam2011.dz@gmail.com

<http://www.cam-dz.org>

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Congress language / Langue du congrès

English or French / Anglais ou Français



Université 8 mai 1945 Guelma

جامعة 8 ماي 1945 قالمة



L'Association Algérienne de Transfert
de Technologie « @2t2 »

الجمعية الجزائرية لتنقل التكنولوجيات

Congrès Algérien de Mécanique

November 14–17, 2011

Guelma, Algeria

CAM2011



EAM2011

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EAM2011

Topics / Thèmes

1. MATERIAL MECHANICS / MÉCANIQUE DES MATÉRIAUX

(Matériaux Métalliques, Polymères, Céramiques et Composites)

- Loi de Comportement Monotone et Cyclique : Plasticité, Viscoplasticité...
- Interactions Thermiques - Mécanique - Métallurgie
- Approches Multi-Échelles, Relations Comportement - Microstructure
- Endommagement, Fatigue, Rupture

2. VIBRATION, ACOUSTIC & MAINTENANCE / VIBRATION, ACOUSTIQUE & MAINTENANCE

- Gestion et Fiabilité de la Maintenance, Maîtrise du Risque, Retour d'Expérience
- Techniques de Détection des Défauts : CND, Vibro-Acoustique, Thermographie, etc.
- Acoustique Industrielle, Couplage Fluide-Structure
- Dynamique et Vibration des Structures : Modélisations, Machines Tournantes

3. PRODUCTION ENGINEERING (CAD-CAM) / PRODUCTIQUE (CAD-CFAO)

- Usinage à Grande Vitesse et Usinage des Matériaux Durs
- CAD/CFAO
- Usinage des Surfaces Complexes
- Dynamique de l'Usinage
- Procédés d'Usinages non Conventionnels (Electroérosion, Usinage par Laser, par Ultrason, etc.)
- XAD Mécanique (Gestion de la Production, de la Qualité et de la Maintenance)
- Systèmes Flexibles de Production

4. MECHANISMS & ROBOTICS / MÉCANISMES & ROBOTIQUE

- Dynamique des Systèmes Mécaniques Articulés
- Conception de Robots
- Micro Robotique
- Robots à Architecture Parallèle
- Robotique Mobile
- Robotique Médicale
- Préhension et Manipulation

5. TRIBOLOGY & CONTACT MECHANICS / TRIBOLOGIE & MÉCANIQUE DE CONTACT

- Mécanique des Surfaces et Tribologie
- Contacts, Frottements et Interfaces
- Modélisation des Mécanismes et Systèmes Complexes
- Mécanique du Contact et Tribologie des Polymères
- Tribologie en Milieu Vivant
- Modélisation et Analyse des Interactions Mécanique - Géométrie - Matériau

6. ENERGY MECHANICS / MÉCANIQUE ÉNERGETIQUE

- Thermodynamique
- Mécanique des Fluides
- Turbulence
- Moteurs
- Turbomachines
- Combustion
- Transferts de Chaleur et de Masse
- Efficacité énergétique
- Développement durable
- Énergies renouvelables (solaire et Biomasse)
- Stockage de l'énergie
- Modélisation et simulation en énergétique
- Techniques de mesures

7. STRUCTURES / STRUCTURES

- Analyse des Structures sous Sollicitations Extrêmes (Séisme, Vent, Feu, Explosion, etc.)
- Renforcement, Réhabilitation et Vulnérabilité des Structures
- Méthodes Numériques Appliquées aux Calculs des Structures (Éléments Finis, Éléments Discrètes, etc.)
- Stabilité et Analyse Non Linéaire des Structures



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The Algerian congress of Mechanics offers again this space of expression and exchange, that much important, between communities mechanics of both north and south banks. The CAM2011 is welcomed this year by the University May 8th, '45 of Guelma from 14th to 17th of November 2011. The choice of the place joins in a will of opening of the organizers on all the universities of the Algerian territory.

Ancient Roman city, Kalama, today called Guelma, is situated in the heart of a big agricultural region at 290 m height, surrounded with mountains (Maouna, Obegh, Houara) what gives it the name plate city, its region benefits from a big fertility due to Seybouse and from a big dam which covers a wide perimeter of irrigation. Its agricultural and thermal resources were from time immemorial the pride of this village. It also occupies a strategic geographical position, since it represents a crossroads in the northeast region of Algeria, connecting the coast Wilayas of Annaba, El Tarf and Skikda, with the internal regions such as Wilayas of Constantine, Dum El Bouagui and Souk Ahras. <http://www.univ-quelma.dz/presentation/quelma-ville.asp>

Three new topics are added to the previous ones and will constitute one of the concerns and the new orientations of cam2011: Computer Aided Design and Manufacturing (CAD-CAM), Mechanisms and Robotics, Tribology and Contact Mechanics.

The topic of CAD-CAM concerns the systems of industrial production which face at present profound transformations. The improvement of the competitiveness of an industrial system is strongly conditioned by the use of the advanced techniques such as the Digital control of machines and more particularly the manufacturing 7 axes, the Conception, and the Computer-aided Manufacturing (CAD-CAM), the high-speed Manufacturing, the manufacturing of complex surfaces, the non conventional processes of manufacturing (laser, ultrasound), robotics, etc.

The topic of Mechanisms and Robotics aims at the last developments of new approaches in the dynamics of the articulated mechanical systems, it handles the new aspects of the robotics microcomputing, the robots with parallel architectures and the mobile robots. This field also presents the new applications of robotics from the prehension and the manipulation of objects to medical robotics by way of manufacturing by means of the parallel robots.

The conception and the realization of the mechanical sets are linked to the inevitable imperfection of the processes of manufacturing which yield appearances of friction integrated into the operating of the mechanical systems. The topic of Tribology and Contact Mechanics aims mainly at the understanding of the tribology phenomena which govern among others the processes of shaping. More particularly, the recent and new orientations in terms of conception, advanced processes, modelling / simulation will be revealed during the CAM2011.