



**JCM 2018**  
Cartagena Spain  
20<sup>th</sup>-22<sup>nd</sup> June



**Universidad Politécnica de Cartagena**

# International Joint Conference on Mechanics, Design Engineering and Advanced Manufacturing

## KEY DATES

**January 20<sup>th</sup> 2018**

Extended abstract submission deadline

**February 5<sup>th</sup> 2018**

Abstract relevance notification

**March 5<sup>th</sup> 2018**

Full paper submission deadline

**April 1<sup>st</sup> 2018**

Accepted paper notification

**April 25<sup>th</sup> 2018**

Revised paper submission

**May 10<sup>th</sup> 2018**

Accepted paper notification

## SCIENTIFIC COMMITTEE

### Conference Chair

Francisco Cavas Martínez  
Universidad Politécnica de Cartagena

### Conference Program Chair

Daniel García Fernández-Pacheco  
Universidad Politécnica de Cartagena

### Conference Advisory Chairmen

María de la Paz Morer – Univ. Navarra  
(Tecnun) INEGRAF PRESIDENT

Benoît Eynard – UT Compiègne

S-mart PRESIDENT

Vincenzo Nigrelli – Univ. Palermo

ADM PRESIDENT

## ORGANIZING COMMITTEE

### President

Francisco J. Fernández Cañavate

### Committee Members

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Francisco Cavas Martínez  
Dolores Parras Burgos  
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The International Joint Conference on Mechanics, Design Engineering and Advanced Manufacturing (JCM 2018) originates as the 9<sup>th</sup> Joint Conference of INEGRAF (Asociación Española de Ingeniería Gráfica), ADM (Associazione Nazionale Disegno e Metodi dell'Ingegneria Industriale) and S-mart (Systems, Manufacturing, Academics, Resources, Technologies).

The conference will be focused on the latest advances in Design and Manufacturing Methods and Tools in Engineering (Mechanical, Automotive, Aeronautics, Civil, Industrial, etc.) and Architecture, with regard to:

- Geometric Modelling and Industrial Process Design
- Augmented and virtual reality for product and process design
- Smart Production Systems and Advanced Manufacturing Technologies
- Engineering methods in Medicine
- Innovative Product Development and Design Methods
- Innovation in Building Information Modelling and Architecture
- Education, learning and knowledge

We are pleased to invite all researchers, engineers and students to participate. The contributions will be selected for oral session or poster session.

Authors will be invited to submit extended abstracts, which will be peer reviewed for relevance to the conference topics.

Full papers will be peer reviewed for acceptance with the essential corrections and proposed for oral presentation or poster session.

All the accepted papers will be published on Lecture Notes in Mechanical Engineering, a book edited by Springer and indexed in SCOPUS.

Selected papers will be invited to be submitted to several journals indexed in Scopus and JCR (Thomson Reuters):

- Symmetry (ISSN: 2073-8994, IF-JCR: 1.457): Confirmed
- Dyna (ISSN: 0012-7361, IF-JCR: 0.541): Confirmed
- International Journal on Interactive Design and Manufacturing (ISSN: 1955-2513, IF-SJR: 0.496): Tentative

<http://www.jcm2018ct.com>

The conference will take place in the millenary city of Cartagena, a city with more than 3,000 years of history and that has been the scene of some of the most outstanding passages throughout time. This Punic, Roman, military and art nouveau city offers nowadays so many things to see and do that it has become one of the most appealing destinations in the Mediterranean area.

## TOPICS

### PRODUCT DESIGN & DEVELOPMENT

Green engineering & eco-design  
User centered design  
Product lifecycle-based design  
Robust design, reliability & maintenance  
Modelling and simulation-based design  
Ergonomics & human factors  
Global product development

### COMPUTER-AIDED DESIGN AND INTERACTIVE DESIGN

Virtual approaches for interactive design  
Virtual prototyping-based design  
CAD, CAE, IFC and BIM  
Image processing and analysis  
Geomatics engineering: cartography, GIS,...  
Geometric modelling and analysis  
Reverse engineering  
Virtual and augmented reality

### MANUFACTURING AND INDUSTRIAL PROCESS DESIGN

Integrated/Advanced manufacturing  
Manufacturing process and production management  
Rapid prototyping  
Additive Manufacturing  
Flexible assemblies  
Remanufacturing  
Industry 4.0

### GRAPHICAL BIOENGINEERING

3D modelling of biological structures  
Computer-aided methods for pathologic diagnosis  
Emotional engineering  
Biomimicry for product design  
Simulation and visualization of biological systems  
Life science and design for healthcare

### INNOVATION

Creativity & innovation methods  
Collaborative engineering  
Intellectual property management  
Design science research methods

### TEACHING-LEARNING

Teaching on Graphic Expression  
Theoretical & applied geometry  
Industrial & graphic design  
New approaches in teaching/learning process  
Project-based education  
Interactive 3D modelling

