

Training Brochure Altair Spain - 2018



INNOVATION INTELLIGENCE®



Training tailored to your needs

Altair offers engineers and technicians involved in digital simulation and design training to discover or deepen their knowledge of Altair HyperWorks, PBSWorks and solidThinking software, as well as related physics.

Discover courses available in this catalog!

These courses are given in our training center in Madrid (see page 9).

If you would like to order a training course dedicated to your organization (at your location or on one of our other dates) contact us!

We can also work with you to create specific training courses with personalized content.

At your service!

Contact us by phone: +34 910 810 080 Contact us by email: <u>sales-spain@altair.com</u>

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Courses Offered

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Structural Analysis with HyperWorks (HyperMesh + OptiStruct + HyperView)

Prerequisites: None. A basic knowledge of finite element analysis would be helpful. **Dates:** 6-8/2/2018 (3 days) - 12-14/6/2018 (3 days)

This course will show students how to solve structural FEA problems using HyperWorks. Students will learn the basic steps to set up a FEA problem in HyperMesh (cleaning geometry, meshing, checking...), define loading conditions, OptiStruct analysis parameters and results reporting in HyperView.

- Introduction to HyperWorks Desktop.
- Geometry and meshing
- Stress postprocessing
- OptiStruct introduction
- Linear static analysis
- Introduction to linear dynamics
- Non-linear analysis
- Advanced postprocessing



Related Training Courses: OptiStruct Optimization, RADIOSS introduction.

OptiStruct Optimization

Prerequisites: Introduction to HyperWorks Desktop (HyperMesh + HyperView), OptiStruct Analysis **Dates:** 27-28/02/2018 (2 days)

This is an introductory course for using OptiStruct for optimization in the product design process. Students will learn optimization concepts and do hands-on exercises for topology, topography, size, and shape optimizations.

- Optimization concepts
- Preprocessing and OptiStruct basics review.
- Topology optimization
- Topography optimization
- Free-size optimization
- Size optimization
- Shape and free-shape optimization



Related Training Courses: OptiStruct Analysis, Introduction to HyperWorks Desktop, RADIOSS Introduction, AcuSolve, Inspire



Post Processing with HyperWorks Desktop

Prerequisites: A basic knowledge of finite element analysis (recommended). **Dates:** 13/03/2018 (1 day)

This course as aimed at those finite element analysts who want to improve their postprocessing capabilities using HyperView and HyperGraph.

Different tools and techniques are shown, using different kinds of analysis results: linear-static, non-linear, modal, transient, optimization, etc.

- HyperWorks Desktop Environment
- Animation and View Controls
- Stress Analysis with HV
- Plotting with HG
- Matrix Browser and Results Explorer
- Publishing



Related Training Courses: Structural Analysis with HyperWorks, Introduction to HyperWorks Desktop

MotionSolve Introduction

Prerequisites: A basic knowledge of multi-body dynamics would be helpful. **Dates:** 25-26/06/2018 (2 days)

This is an introductory course for using MotionSolve. Students will learn the basic steps with MotionView: multi-body entities creation, contacts resolution, flexible bodies, vehicle models and optimization.

- Introduction to HyperWorks & MotionView
- Model entities creation
- MotionView/MotionSolve Process Overview
- Contact simulation
- Flexible Bodies
- Assembly Wizard
- DOE & Optimization using HyperStudy



Related training courses: Post Processing with HyperWorks Desktop, Structural Analysis with HyperWorks.



FEKO

Prerequisites: None. A basic knowledge of EM. **Dates:** 28-30/05/2018 (3 days)

FEKO is a comprehensive 3D electromagnetic simulation software suite based on state of the art CEM methods that enable users to solve wide range of EM problems such as antenna design, antenna arrays, antenna placement, RFID, RCS, radomes, pattern synthesis with characteristic mode analysis, EMC/EMI, lightning and cable analysis, Bio-electromagnetics, etc.

- Introduction to the general FEKO Suite
- Techniques employed, and advantages / disadvantages / limitations / etc. of the different numerical techniques.
- Comparison of results using different numerical solutions
- Basic CAD-model construction
- Advanced features (work-planes, parametric geometries, nonuniform meshing)
- Defining solution parameters in CADFEKO
- Post-processing with POSTFEKO
- Some advanced examples (mainly during the 3rd. day)

Related Training Courses: HyperMesh, HyperView



RADIOSS Introduction

Prerequisites: A basic knowledge of finite element analysis. A basic knowledge of HyperMesh or HyperCrash. A basic knowledge about Pre and Post processing finite element models. **Dates:** 5-6/06/2018 (2 days)

This is an introductory course for using RADIOSS to solve a large number of high non-linear dynamics problems, with large displacements, large strains, contact and material non-linearity.

- Background about finite element formulations and time integration schemes
- Pre and Post-processing structural dynamic simulations
- Time-step stability and control
- Contact interfaces
- Material Laws
- Debugging models and understanding error messages
- Best Practices on solving high non-linear problems



Related Training Courses: OptiStruct Analysis, OptiStruct Optimization, AcuSolve, Inspire

Altair Training Center in Madrid

Address: <u>Calle Hermanos García Noblejas 43, 2ª planta Madrid</u> 28037 Spain

Closest Metro Station: García Noblejas (Línea 7)





Altair Training Center in Madrid





About Altair

Altair develops technology designed to facilitate the analysis, management and visualization of the technical and decision-making data of a company, thus improving its costumers' capacity for innovation.

With more than 30 years of experience and more than 2,600 employees, including more than 2,000 engineers, scientists, developers, and designers, Altair is located in 22 countries and offers its software technology and expertise to carry out design and simulation projects.



To find out more, please visit our website at <u>www.altair.com</u>.

FOUNDING DATE	1985
FOUNDER	James R. Scapa
WORLD HEADQUARTERS	Troy - Michigan (United States)
WORLDWIDE PRESENCE	AMERICAS Brazil, Canada, United States, Mexico EUROPE, MIDDLE EAST, AFRICA South Africa, Germany, Austria, Spain, France, Greece, Israel, Italy, United Kingdom and Sweden Asia- Oceania Australia, China, South Korea, India, Japan, Malaysia



Altair Spain, in its locations of Madrid and Barcelona, brings together a multidisciplinary and multicultural team devoted to development, service, support and sales.

To find out more, visit our website: http://www.altair.com.es/

BRANCH CREATION	2011
MANAGING DIRECTOR	Stefano Deiana
OFFICE LOCATION	Calle Hermanos García Noblejas 43, 2 planta, Madrid 28037 Spain
LOCATIONS IN SPAIN	Madrid, Barcelona

References

Today, more than 5,000 customers in different industries around the world use solutions provided by Altair.

Automotive	Aerospace	Heavy Equipment	Government	Life/Earth Sciences	Consumer Goods	Energy
	BAE SYSTEMS		Argonne 🐴 🖳	BASF The Chemical Company	acer 🍥 compal	AB 😂
			🗢 AIST 🛞	Adecco Abbott	Henkel () 3M	
	GENERAL EADS	KOMATSU TATA STEEL			(intel) IBM FUjîrsu	ConocoPhillips
	BOMBARDIER	OHITACHI BOMBARDIER		Fresenius Medical Care	RIAN TESCO xerox ()	
SUMTOMO	Honeywell		RIDCE Noticed Laboratory			
JAGUAR	Lufthansa		Council Canada	sanofi aventis Dra Vichegere m de Gesender	Microsoft	Reliance Industries Limited Schneider Electric
		TTOCHU DOOSAN	National Laboratories	accenture	EMERSON BUZUKI MOTOROLA KIRIN TOSHIBA Panasonic	
	United Technologies	Arcelor/Mittal	NAVSEA		Pre Pre vistron	
RENALLY AND DENSO	NORTHROP CRUMMAN			بیتابک جالاند	Sony Ericsson Convecting Prode Johnson FURFILM	C EVONIK ThyssenKrupp () Vestas.

Booking

Since we have limited seats, please don't forget to contact us to reserve yours.

Altair reserves the right to cancel courses if the number of confirmed participants is less than 8

To Contact Us

Altair Spain, Authorized Training Center

Phone: 0034 910 810 080

Email: sales-spain@altair.com

To discover more about Altair software, go to our website: www.altairhyperworks.com

