

# Université de Lorraine includes Digimat Software in their "Master 2 - Mechanical Engineering I2M" program

Enables students to deal with tomorrow's materials industry challenges

LUXEMBOURG – (December 21, 2018) – <u>e-Xstream engineering</u>, an MSC Software Company and a world leader in multi-scale modeling of composite materials and structures, today announced the introduction of Digimat software into the Mechanical and Materials Engineering Master 2 program of the <u>UFR MIM</u>, one of the faculties of the <u>Université de Lorraine</u> in France. This collaboration aims at preparing students to face today's and tomorrow's industry challenges by being trained to use the necessary innovative tools for materials simulation.

Computer Aided Engineering (CAE) is now used by all industries worldwide with the aim to minimize time and save costs for material related R&D and testing. This is why the UFR MIM is concerned with Digital Mechanics and thus is progressively moving the majority of its courses from classic written theory classes to practical working classes.

"We are reworking our pedagogy which was in a theoretical framework to a practical one by incorporating more and more software suites that are used in industries, and I know, because I have used it for years, that Digimat is user friendly and increasingly adopted in industries so we want to train our Master 2 with it" said Sébastien Mercier member of the Laboratory of microstructure and mechanics of materials study (LEM3) and Professor in the Mechanical department of UFR MIM in Université de Lorraine. "Moreover, for each subject, we will try to possess the adequate software; and in my opinion, Digimat is the most suited for composites".

Digimat is gaining increasing presence throughout the last 10 years and is being adopted more and more by materials and design engineers in automobile, aerospace and material related industries. Hence, Université de Lorraine is teaching these future Masters students how to work efficiently with Digimat, which will certainly make them stand out amongst their peers for jobs in industry and skillsets. According to Sébastien Mercier; "For us, having Digimat is also having the possibility to train our students with an industrially used software which is very advantageous because the skills learned is keeping them closely attached to industrial needs and so, it is professionally oriented."

Digimat Software has already been used in this University in the LEM3 laboratory but only in the research field for the last 3 years. Several PhD students are now including Digimat in their



research work into the mechanics of materials to derive effective behaviour predictions for composites, but it will be the first year that master students will use the software in a class, mostly to compute and find out materials composites' effective properties.

"It is also a good thing to make students use Digimat and take them out of the school environment. For these reasons, we would be very pleased to extend this partnership with Digimat for some years as it goes along with our program that care more and more about the student employability after their graduation." concluded Sébastien Mercier.

Roger Assaker, CEO of e-Xstream & Chief Materials Strategist MSC Software, endorses the pioneering approach of the Université de Lorraine adding; "With tremendous changes coming to the transportation industry including lightweighting and additive manufacturing, there is a unprecedneted demand from industry for trained materials CAE engineers that can hit the ground running in companies. This pioneering course will allow many industrial careers to take off and it provides a competitive advantage for French manufacturing industry in the smart tech future the world faces."

#### About Université de Lorraine

<u>Université de Lorraine</u> offers curricula in all fields of knowledge: sciences, health, technology, engineering sciences, human and social sciences, law, economy, management, arts, literature and language. A specific focus is given to crossovers between fields and skills, to help students develop their own pathway. Université de Lorraine is hosting 60 research laboratories, 43 teaching faculties including 11 engineering schools. With such a broad combination of curricula, Université de Lorraine is a global university and as a consequence can be considered as specific for the French higher education system. With 7000 staff members, second largest employer in Lorraine region, Université de Lorraine welcomes each year more than 60000 students and is present in 54 locations across the whole Lorraine region.

## **About the UFR MIM**

L'Unité de Formation et de Recherche Mathématiques Informatique et Mécanique (<u>UFR MIM</u>) was founded in 1985. It is a component of the collégium Sciences and Technologies of Université de Lorraine. Its counts more than 1200 students registered in various degrees that the university proposes. His trainings join the European frame of the DML higher education (License, Master's degree, Doctorate). The following domains are proposed: mathematics, Computing, Sciences for the Engineer, Materials, Civil, logistic, hydraulic and automatic Engineering.

## **About e-Xstream Engineering**

Founded in 2003, e-Xstream engineering, an MSC Software Company is a software and engineering services company 100% focused on the multi-scale modelling of composite materials and structures. The company helps customers, material suppliers, and material users across many industries. They aim to reduce the cost and time needed to engineer innovative materials and products using Digimat,



the nonlinear multi-scale material and structure modelling platform. Since September 2012, e-Xstream engineering is a subsidiary of MSC Software Corporation.

## **About MSC Software**

MSC Software is one of the ten original software companies and a global leader in helping product manufacturers to advance their engineering methods with simulation software and services. As a trusted partner, MSC Software helps companies improve quality, save time, and reduce costs associated with design and test of manufactured products. Academic institutions, researchers, and students employ MSC's technology to expand individual knowledge as well as expand the horizon of simulation. MSC Software employs 1,300 professionals in 20 countries. For additional information about MSC Software's products and services, please visit: <a href="https://www.mscsoftware.com">www.mscsoftware.com</a>

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