BECOME AN EUROPEAN ENGINEER AND IMAGINE THE MATERIALS FOR THE FUTURE

> #AÉRONAUTION #VILLE DE DEN #SANTÉ

ANOTECHN

EEIGM ÉCOLE EUROPÉENNE D'INGÉNIEURS EEIGM EN GÉNIE DES MATÉRIAUX

AND TAKE PART IN THE GREAT TECHNOLOGICAL ADVENTURES OF THE XXIST CENTURY



# IMAGINE THE MATERIALS FOR THE FUTURE









# **ID CARD**

- ✓ Public engineering school in 5 years
- ✓ 1st french engineering school in materials science \*
- ✓ 30% of students are international and 40% are female
- ✓ 4 languages : french, english, german and spanish
- ✓ Double and triple degrees

\* According to the 2020 « Le Figaro Etudiant » ranking



### One of the 11 engineering schools of University of Lorraine



#### **10 455 international students**



#### All domains are represented



 Lorraine University of Excellence

 15 programs promoting scientific excellence and international collaboration



Excellence international partnerships and research programs

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#### SITUATION











# NANCY – Capital of "Art Nouveau"















# **NANCY : a dynamic city**



















6 rue Bastien-Lepage 54000 NANCY https://eeigm.univ-lorraine.fr/

### **EEIGM : a 7 universities consortium**



+ international partnerships :

• Kyushu Institute of Technology, Japan

Universidade de São Paulo,
Universidade de
Caxias do Sul, Brazil

Université
Internationale de
Rabat (ECINE),
Ecole Nationale
Supérieure de Mines
de Rabat, Ecole
Faculté des Sciences
et Techniques de
Marrakech, Morocco

 Faculté des Sciences de Sfax, Tunisia

#### European

# **Study Path for MISIS students**

### European

At NUST MISIS - Moscow			At EEIGM - Nancy		
	Semester 2	Industrial inte	ernship	100	
6th year					
	Semester 1				
	Semester 2				
5th year					
	Semester 1		\$7		
		Bachelor E	IGM		
	Semester 2		S6		
4th year					
	Semester 1		S5		
	Semester 2				
3rd year					
	Semester 1				
	Semester 2				
2nd year					
	Semester 1				
	Semester 2				
1st year				11 0	
	Semester 1				

### **Teaching subjects in Nancy**

#### Materials Science

The 3 semesters in Nancy



Science for engineer Process Engineering Materials sciences Foreign languages Comunication

### What are the materials ?

The materials are all solids that humans use to create the objects that surround us.

They are needed to make as many objects as

a toothbrush ....



#### .... or rockets and satellites





### Materials are becoming "smart"



Color change and energy control with electrochromic glass





#### They can change shape

Titanium-nickel osteosynthesis pins help in healing fractures High performance composites and metals Nano and natural fibre composites Synthesis of new ceramic and metallic materials High-temperature advanced materials Additive manufacturing of steels an intermetallics Nanomaterials for energy Hierarchical materials Luleå – LTU

Surface treatments – functional films and surfaces Properties of nanoparticles Metallurgy Materials for energy Corrosion science Composite materials Polymers engineering and recycling Nancy – EEIGM – UL

Multifunctional coating, nanofilms Advanced metallic and composite materials Energy efficient technologies Moscow – MISIS

#### 30 labs

Surface treatments Metallurgy Treatment/recycling of industrial wastes Precipitation of carbonates Thermal solar Bruxelles – ULB

#### **Common research topics:**

(Thermo)-Mechanical properties Materials characterisation Physical metallurgy Biomaterials Functional materials Nanomaterials Modelling and simulation Contact damage Polymers and Polymer matrix composites Advanced ceramics and coatings Micro and Nanomechanics Barcelona - ETSEIB/UPC

> Non-destructive testing Polymers Manufacturing technology Massive metallic glasses Saarbrücken – UdS

Welding Corrosion Powder metallurgy Electrodeposition of functional thin layers Laser Cladding and Thermal spray Coating Valencia – UPV

#### **EEIGM conferences on Advanced Materials Research (AMR)**

#### AMR 10 : 25<sup>th</sup> and 26<sup>th</sup> of April 2019, at NUST MISIS, Moscow



91 delegates , 40 oral + 40 poster presentations, Lab tours

Next editions : AMR 11 in Barcelona (2022) – AMR 12 in Bruxelles (2024)



- 40 % of the graduates are female

### Engineering



















#### **Main industrial partners**





### **EEIGM:** life after school!

# School



Pom-pom boys & girls



Aquacités



**Student** parties



Music



Carnival



4 rackets tounament



Sports



24h de Stan 21



#### Thank you for you attention !

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