

PORTES OUVERTES LUXEMBOURG

Bienvenue

Welcome

Wëllkomm

Willkommen



FACULTY OF SCIENCE,
TECHNOLOGY AND
MEDICINE





LIMPERTSBERG CAMPUS

Physics

162a, avenue de la Faïencerie, L-1511 Luxembourg



KIRCHBERG CAMPUS

Engineering & Space & Mobility


6, rue Richard Coudenhove-Kalergi, L-1359 Luxembourg



DISCOVER THE UNIVERSITY OF LUXEMBOURG

With more than 6,780 students from all over the world, the University of Luxembourg has an international and multilingual character that offers its students a higher search-oriented education.


THE UNIVERSITY



2003
Foundation

3
Faculties

3
Campuses

3 
Interdisciplinary Centres

OUR APPROACH

INTERNATIONAL	INTERDISCIPLINARY
MULTILINGUAL	RESEARCH ORIENTED

CLOSE TO EUROPEAN INSTITUTIONS, FINANCIAL INSTITUTIONS AND LEADING INDUSTRY PLAYERS

PEOPLE

6,783
Students

2,245
Staff



950
Doctoral Candidates

283
Professors

130
Nationalities

11.000+
Alumni
(since 2003) thereof
1000+ doctor's
degrees

TEACHING

 46 Master's Degrees	• Trilingual Degrees 14 •
• 17 Bachelor's Degrees •	• 48 Bilingual Degrees •
• Doctoral Schools 4 •	• Degrees entirely taught in English 23 •
• 15 Vocational Trainings •	4 Teaching Languages  (French, German, English and Luxembourgish)

RESEARCH

1,420 Academic Staff	1,000+ Ongoing Projects
114 H2020 projects ¹	57m € obtained funding through FNR ² and H2020 in 2020
 13 ERC grants in Physics, Materials Science, Computer Science, Political Science, Psychology	2,104 Publications in 2020

RANKINGS

 #3 for International Outlook in the Times Higher Education (THE) World University Rankings 2021	#20  Rising Young Universities (in the Nature Index)
#12  Young University Rankings (by THE)	

OUR RESEARCH PRIORITIES

Materials Science | Computer Science and ICT Security
European and International Law | Education
Finance and Financial Innovation
Contemporary and Digital History | Health and Systems
Biomedicine | Data Modelling and Simulation

¹Horizon 2020 is the biggest EU Research and Innovation programme with nearly 680 billion of funding available over 7 years (2014 to 2020). ²The Luxembourg National Research Fund (FNR) is the main funding organism of research activities in Luxembourg.

PHYSICS

(Limpertsberg campus)

During the visit, you will discover:

ARTIFICIAL INTELLIGENCE

The Human Machine 1st floor (relax corner) / 10:00-14:00

Two teams will play a simple role game mediated by an "Artificial Intelligence" machine made of boxes and dominoes.

CRYSTALS

Colour without Colour 1st floor (1.05) / 10:00-14:00

How colours can arise from structure and be used to sense mechanical deformation.

LIGHT

DIY Spectrometer Ground floor - Hall / 10:00-18:00



Building your own spectrometer from a CD and analyzing different light sources. The Scienceteens Lab is the extracurricular learning centre of the University of Luxembourg that offers workshops designed to spark high school students interest in science, show them the latest trends and technologies in research and supports them in their career choice.

MAGNETIC LEVITATION

How a train can levitate? 2nd floor / 12:00 - 14:00 - 16:00

Using a train made out of a superconducting material, we will demonstrate the phenomenon of magnetic levitation.

MOLECULES

No time for molecules to relax 1st floor (1.11) / 10:00-14:00

What happens if materials are cooled down or heated up ultrafast, i.e. with more than one million degrees Celsius per minute?

PHYSICS MEETS BIOLOGY

Marine Microplastics 4th floor (4.04) / 14:00-18:00

How surface properties of microplastics determine if they sink or swim in oceans.

Crystals drops 4th floor (4.04) / 14:00-18:00

Liquid-crystalline droplets when let to evaporate can undergo phase changes, leaving behind a colorful trail that captures the history of the system.

SOLAR CELLS

Thin Film Solar Cells Made in Luxembourg 3rd floor (3.21) / 10:00-14:00

How new types of solar cells are fabricated and analysed via Photoluminescence in our laboratory.

Energy Balance with Solar Cells 2nd floor (2.10) / 14:00-18:00

Calculate how much energy you use everyday, and how many solar modules this requires.



DPhyMS

Department of Physics and Materials Science

dphyms.uni.lu

The Department of Physics and Materials Science (DPhyMS) has an excellent international reputation for its research in condensed-matter physics and related areas. Experimental, theoretical, and computational research groups explore the fascinating properties of a large variety of solid, soft and liquid materials and develop materials with novel functionalities.

Thanks to our staff members:

Michael Philipp ADAMS, Marcio ANTUNES, Jörg BALLER, Mathias BERSWEILER, Aradhana DWIVEDI, Elodie DURIEZ, Yolande EDJOGO, Alessio FALLANI, Etienne FODOR, Jose Nahuel FREITAS, Adamantia GALANI, Kyunghoon HAN, Pedro HARUNARI, Jeremy HIEULLE, Elisabeth JOHN, Marvi JUSTIN, Narges KAKAVAND, Christian KAMENI BOUMENOU, Una KARAHASANOVIC, Louis KRIEGER, Jan LAGERWALL, Xu MA, Artem MALYEVYEV, Alessandro MANACORDA, Shesha Gopal MAREHALLI SRINIVAS, Stylianos Apollonas MATSOUKAS, Alexander MEDINA, Thierry MEYRATH, Andreas MICHELS, Sharadhi NAGARAJA, Irvine ONG, Matteo POLETTINI, Patricia RAMOA, Alex REDINGER, Anupam SENGUPTA, Valentina SERRANO ESCALANTE, Shilpi SHITAL, Ajay SINGH, Amir Hossein TALEBI HABIBABADI, Vamseekrishna ULAGANATHAN, Aline VANDERHAEGEN

ENGINEERING

(Kirchberg campus)

During the visit, you will discover:

BIOMECHANICAL ENGINEERING

Biomechlab

Main building (CS04)

Get a look at the realistic biomechanical testing of the human body implants

CIVIL STRUCTURAL ENGINEERING

Steel & Concrete

L building (L021)

How to conceptualize reusable steel-concrete composite floors?

Reliability of numerical design methods for composite structures in steel & concrete

GEOSPATIAL ENGINEERING

Several instruments will be displayed

Main building (C02) + outside

- General introduction to geospatial engineering
- GNSS positioning and geodesy
- Terrestrial laser scanning and photogrammetry
- Machine learning for geospatial big data
- Building information modelling

MECHANICAL ENGINEERING

Fabrication laboratory at Uni – Fab@Uni

Main building -1 (AS28)

Fab@Uni is offering digital fabrication, mainly 3D printing, to develop and optimize prototypes for education and research.

Laser manufacturing

L building (L020)

Laserbeam welding of dissimilar materials for manufacturing processes.

Robotics

L building (L019)

Different applications tasks related to robotics will be presented.

RENEWABLE ENERGIES

Home energy management systems (HEMS)

L building (L022)

Possibility to bridge the gap between renewable energy production and consumption.

WATER MANAGEMENT

Treatment of wastewater contaminated with micropollutants

Main building (Lab A07)

How can we minimize pollution from pharmaceuticals and pesticides in our surface water reservoirs?



DoE

Department of Engineering

doe.uni.lu

The Department of Engineering (DoE) is an interdisciplinary group active in the classical domains of civil, electrical and mechanical engineering and geophysics. The main focus of research is on the development of technological solutions, the sustainable and economical use of all kind of resources, the offer of competences for the technological requirements of Luxembourg and the Greater Region industrial and public actors.

Thanks to our staff members:

Soliman Ahmed, Arghavan Akbarieh, Mahdi Amne Elahi, Dietmar Backes, Heidi Backström, Frédérique Bertrand, Cédric Bruyere, Museyibov Elvin, Ozgun Ergun, Eshetu Erkihune, Jovan Fodor, Rita Giannini, Jean-Régis Hadji-Minaglou, Jo Hansen, Addisu Hunegnaw, Slawomir Kedziora, Gilbert Klein, Patrick Kobou Ngani, Atal Anil Kumar, Peter Marx, Paula Nunez, Abdul Awal Nurunnabi, Polina Paul, Berta Rato, Irene Salmerón, Marc Seil, Parvaz Shahoriar, Norman Teferle, Audrey Vari, Silvia Venditti, Daniel Warnimont, Ed Weyer, Claude Wolf, Pellumb Zogu

SPACE

(Kirchberg campus)

During the visit, you will discover:

CONCURRENT DESIGN FACILITY

Learn more about the engineering approach used every day in space agencies like ESA and NASA.

CUBESATLAB

Find out where students and researchers build and test CubeSats, nanosatellites measuring only 10 x 10 x 10 cm.

LUNALAB

Discover the LunaLab, a lab that simulates lunar conditions for testing the navigation of lunar robots.

ZERO-G LAB

Visit an environment without gravity! Our researchers test the movement of in-orbit robotics, satellites and other spacecraft in this lab.

SATCOMLAB AND 5GSPACE-LAB

See how researchers test algorithms in conditions that reflect the challenges and constraints of real-world communications platforms.

COMMLAB

Get a look at the computing power needed to establish good signals between satellites and Earth.

AEROLAB

Experience a flight arena equipped with a motion capture system and a fleet of multicopters with onboard sensors, computers, and manipulators to research on motion planning and control for the autonomous navigation of aerial robots.

SMART MOBILITY

help us innovate
RODENBOURG
mob (Kirchberg campus)

360LAB

Sneak a peek at our self-driving car "Junior" that our researchers use to make mobility smarter.



SnT

Interdisciplinary Centre for Security,
Reliability and Trust

snt.uni.lu

The Interdisciplinary Centre for Security, Reliability and Trust (SnT) conducts internationally competitive research in information and communication technology, ICT, with high relevance creating socio-economic impact. In addition to long-term, high-risk research, SnT engages in demand driven collaborative projects with industry and the public sector.

Thanks to our staff members:

Abdelrahman ABDALLA, Amelie ABOUT, Hriday BAVLE, Naira BARDASARYAN, Vladyslav BOHLACHOV, Silvia CALLEGARI, Claudio CIMARELLI, Mohan DASARI, Raphaël FRANK, Mohammad GHOLAMIAN, Valerie GREGOIRE, Hamed HABIBI, Faisal HAWLADER, Morgane HUGUES, Meisam KABIRI, Paul KREMER, Johannes LAUR, Marielle MABILLE, Magali MARTIN, Juan Carlos MERLANO DUNCAN, Miguel Angel OLIVARES MENDEZ, Jorge QUEROL BORRAS, Loveneesh RANA, Jose Luis SANCHEZ LOPEZ, Mehdi TESTOURI, Jan THOEMEL, Rodrigo WEBER, Maria ZHEKOVA



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