The NOVA University of Lisbon has its teaching and research schools and institutes distributed in the Lisbon metropolitan area, including the centre of Lisbon, Almada, Oeiras and Cascais.
FACTS AND FIGURES

THE UNIVERSITY

9 Schools
9 Libraries
3 Halls of Residence

ACADEMIC AND RESEARCH STAFF

1716 Teachers and Researchers
1172 Teachers and Researchers FTE
99.5% Tenure track

DEGREE PROGRAMMES *

28 Bachelor
9 Integrated Masters
3 Masters
82 Doctorate

* Accredited and registered

PLACEMENT 1st CYCLE AND INTEGRATED MASTERS

Year 2018/2019

2571 available places
8.3 applications per available place
5096 1st choice applications

GRADUATES

Year 2016/2017

1945 Bachelor
695 Integrated Master
1443 Master
244 Doctorate
RESEARCH

41 Research Units
77% “Exceptional”, “Excellent” and “Very Good”*

* evaluated by the Foundation for Science and Technology

4514 Publications (2016)
2242 Publications indexed to Scopus/WOS

19 European Research Council Grants
+48,6 M € Horizon 2020 Funding *

* by July 2017

RESEARCH FUNDS

28,7% Research Income
27,1% from private sources
INTERNATIONAL

2527 International students enrolled
109 Nationalities

572 International graduate students

123 International Teachers and Researchers

82 Degree Programmes taught in English

+580 Mobility partnerships
63 Countries

928 Exchange Incoming students
753 Exchange Outgoing students

NOVA INTERNATIONAL RANKINGS

QS TOP 50 UNDER 50
15th best in Europe, among the top 50 in the world under 50 years old

U-MULTIRANK 2018
10th place among public European universities

EDUNIVERSAL MASTERS 2018
European Top 10 in 19 areas and the European Top 5 in 13 areas

QS BY SUBJECT
Top 8 among young European universities in 5 areas: Arts & Humanities (6th); Engineering & Technology (8th); Life Sciences & Medicine (7th); Natural Sciences (5th); Social Sciences & Management (7th)
NOVA School of Science and Technology

School of Social Sciences and Humanities

NOVA School of Business and Economics

NOVA Medical School

NOVA Law School

Institute of Hygiene and Tropical Medicine

NOVA Information Management School

Institute of Chemical and Biological Technology

National School of Public Health
Faculty Staff: 421
Non-Faculty Staff: 207
Candidates / vacancy: 6.6
New Students / year: 1625
Graduates / year
  Bachelor + Master: 970
  PhD’s: 90
ISI Wos Publications / year: 900
Tuition Fees, M€ / year: 8
Project Revenues, M€ /year: 15
State Budget, M€: 25
% Own Revenues: 48
Events / year: 350
FCT NOVA

Engineering & Sciences

research-oriented education

8119 students

82 study cycles
- 37 Ph.D. Degrees
- 39 Masters Degrees
- 17 B.Sc. Degrees

50 postgraduate programs
research-oriented education

14 departments

428 Professors

Environmental Sciences and Engineering
Materials Science
Conservation and Restoration
Applied Social Sciences
Earth Sciences
Science and Technology of Biomass
Life Sciences
Civil Engineering
Electrical and Computer Engineering
Mechanical and Industrial Engineering
Physics
Informatics
Mathematics
Chemistry
Research & Innovation

16 R&D UNITS
12 CENTERS | 4 LOCAL SITES

1090 RESEARCHERS
525 INTEGRATED MEMBERS
565 PhD Students

933 PROJECTS
European Union: 352
National: 437
Industry: 144
R&D and Study Areas

Physics and Technological Research
Environmental Sustainability
History of Science and Technology
Mathematics and Applications
Electrical and Electronics Engineering
GeoTechnologies and GeoEngineering
Material Sciences and Nano Technologies
Biomedical Engineering
Marine and Environmental Sciences
Biomass Science and Technology
Informatics and Computer Science
Mechanical and Industrial Engineering
Glass and Ceramics for Arts
Green Chemistry
Applied Molecular Biosciences
Civil Engineering
Research Highlights

TREND - Transparent and flexible electronics with embedded energy harvesting based on oxide nanowire devices (2017-2021; 1.5 M€)

CapTherPV - Integration of Capacitor, Thermoelectric and PhotoVoltaic thin films for efficient energy conversion and storage (2015-2020; 2 M€)

Des.solve - When solids become liquids: natural deep eutectic solvents for chemical process engineering (2017-2020; 1.9 M€)

SCENT - Hybrid Gels for Rapid Microbial Detection (2015-2020; 1.5 M€)

DIGISMART - Multifunctional Digital Materials Platform for Smart Integrated Applications (2018-2023; 3.5 M€)

SCENT - Hybrid Gels for Rapid Microbial Detection (2015-2020; 1.5 M€)
CAMPUS Facilities

- 65 ha area
- 23 buildings
- 150 classrooms
- 420 laboratories
- 42 study rooms
- 15 amphitheaters
- 2,000 parking places
- Students residence
- Daycare center
- High-speed internet
- Restaurants
- Sports-ground
- University hotel
- Stores
CIVIL ENGINEERING
DEPARTMENT

Teaching staff

26 PhD Professors (Full time)
6 PhD Professors (Partial time)

Study cycles ~450 students

- Integrated Master in Civil Engineering
- Master in Civil Engineering
  - Structures and Geotechnics
  - Building Rehabilitation
- Doctoral Programmes
  - Civil Engineering
  - Eco-Construction and Rehabilitation*
- Post-graduate Courses
  - Sustainable Construction
  - Glass Facades

* with other Portuguese universities
Research Areas

- STRUCTURAL CONCRETE AND MASONRY
- DYNAMIC ASSESSMENT OF STRUCTURES
- STRUCTURES UNDER EXTREME EVENTS
- NUMERICAL SIMULATION OF STRUCTURES
- CONSTRUCTION MATERIALS
- ENERGY PERFORMANCE OF BUILDINGS
- GEOTECHNICS
- ROAD PAVEMENTS
- SPATIAL AND URBAN PLANNING
PUNCHING RESISTANCE IN HIGH PERFORMANCE CONCRETE SLABS

Micael Inácio
António Pinho Ramos
(ampr@fct.unl.pt)

Válter Lúcio
(vlucio@fct.unl.pt)
PUNCHING RESISTANCE IN STEEL FIBRE CONCRETE SLABS

Nuno Dinarte
Nelson Fernandes
Duarte Faria
António Pinho Ramos (ampr@fct.unl.pt)
Válter Lúcio (vlucio@fct.unl.pt)
DEVELOPMENT OF A PRESTRESS SOLUTION FOR STRUCTURAL SETENGETHEING USING ANCHORAGES BY BONDING

Duarte Faria

António Pinho Ramos (ampr@fct.unl.pt)

Válter Lúcio (vlucio@fct.unl.pt)
FLAT SLAB STRENGTHENING WITH CONCRETE OVERLAY

Hugo Fernandes
António Pinho Ramos (ampr@fct.unl.pt)
Válter Lúcio (vlucio@fct.unl.pt)
BAD SOLUTION FOR SEISMIC AREAS!

André Almeida
António Pinho Ramos
(ampr@fct.unl.pt)
Válter Lúcio
(vlucio@fct.unl.pt)

RESEARCH IN CIVIL ENGINEERING
STRUCTURAL CONCRETE AND MASONRY
FLAT SLABS UNDER CYCLIC AND SEISMIC ACTIONS
NUMERICAL MODELLING OF THE PUNCHING PHENOMENON

Nuno Mamede
Duarte Faria
António Pinho Ramos
(ampr@fct.unl.pt)
MECHANICAL BEHAVIOR AND STRENGTHENING OF RUBBLE STONE MASONRY WALLS

Fernando Pinho
(ffp@fct.unl.pt)

Válter Lúcio
(vlucio@fct.unl.pt)

Manuel Baião
(LNEC)
ANCHORAGES IN STONE MASONRY WALLS - EVALUATION OF COVER DEVIATION AND RESISTANCE

Fernando Pinho
(ffp@fct.unl.pt)
Dynamic Assessment of Structures

Historical Buildings

Cláudia Carvalho
Pedro Silva
Irineth Salvador
Corneliu Cismasiu (cornel@fct.unl.pt)
Ildi Cismasiu (ildi@fct.unl.pt)
António Gago (IST)
DYNAMIC ASSESSMENT OF STRUCTURES

STADIUMS

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RESEARCH IN CIVIL ENGINEERING

DYNAMIC ASSESSMENT OF STRUCTURES

BRIDGES

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Ana Rodrigues

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CONTROL OF GLASS FAÇADES UNDER WIND LOADINGS

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(cornel@fct.unl.pt)

Filipe Santos
(fpas@fct.unl.pt)
RESEARCH IN CIVIL ENGINEERING

SEISMIC RETROFIT OF STRUCTURES

UNSEATING PREVENTION USING SHAPE-MEMORY ALLOYS

Vasco Bernardo

Rui Perdigão

Corneliu Cismasiu
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Filipe Santos
(fpas@fct.unl.pt)
RESEARCH IN CIVIL ENGINEERING

STRUCTURES UNDER EXTREME EVENTS

BLAST EXPLOSIONS IN BUILDINGS

Hugo Rebelo
Corneliu Cismasiu (cornel@fct.unl.pt)
Válter Lúcio (vlucio@fct.unl.pt)
Filipe Santos (fpas@fct.unl.pt)
RESEARCH IN CIVIL ENGINEERING

STRUCTURES UNDER EXTREME EVENTS

EXPLORATORY STUDY ON GEODESIC DOMES UNDER BLAST LOADS

Hugo Rebelo
Duarte Santos
Corneliu Cismasiu (cornel@fct.unl.pt)
Filipe Santos (fpas@fct.unl.pt)

500 kg TNT at 10 m

Pressure–impulse diagram for lung damage
RESEARCH IN CIVIL ENGINEERING

STRUCTURES UNDER EXTREME EVENTS

EFFECT OF MASONRY INFILL ON ROBUTNESS TO PROGRESSIVE COLLAPSE OF RC FRAMES

Eduardo Cavaco
(e.cavaco@fct.unl.pt)
LIFE-CYCLE ANALYSIS OF DETERIORATING STRUCTURES

ROBUSTNESS OF CORRODED RC BRIDGES

Eduardo Cavaco
(e.cavaco@fct.unl.pt)
DYNAMIC AND LONG-TERM BEHAVIOUR OF RAILWAY TRACKS
STUDY OF RAILWAY TRANSITION ZONES

José Nuno Varandas (jnsf@fct.unl.pt)
Manuel G. Silva
Paul Hölscher (TUDelft)
DYNAMIC AND LONG-TERM BEHAVIOUR OF RAILWAY TRACKS

STUDY OF CORRUGATED SEGMENTS OF THE TRACK

José Nuno Varandas
(jnsf@fct.unl.pt)

Manuel G. Silva

Rúben Silva

Nuno Lopes
(REFER)
DYNAMIC BEHAVIOR OF STRUCTURES SUBJECTED TO MOVING LOADS

RAILWAY LINES – CASE STUDY: SANTANA DO CARTAXO VIADUCT

Zuzana Dimitrovová
(zdim@fct.unl.pt)

André Rodrigues
RESEARCH IN CIVIL ENGINEERING

RAILWAY TRACKS

DYNAMIC BEHAVIOR OF STRUCTURES SUBJECTED TO MOVING LOADS RAILWAY LINES – OPTIMIZATION AND SEMI-ANALYTICAL ANALYSES

Zuzana Dimitrovová (zdim@fct.unl.pt)

André Rodrigues
- Stability
- Steel and steel-concrete structures
- Generalized Beam Theory
- Geometrically exact formulations

Rodrigo Gonçalves
(rodrigo.goncalves@fct.unl.pt)
RESEARCH IN CIVIL ENGINEERING

FINITE ELEMENT ANALYSIS

THIN-WALLED STRUCTURES

GBTUL
freeware program that performs elastic buckling and vibration analyses of prismatic thin-walled members

Rodrigo Gonçalves
(rodrigo.goncalves@fct.unl.pt)

Dinar Camotim
(IST)

Nuno Silvestre
(IST)
FreeHyTE

OPEN-SOURCE AND USER-FRIENDLY HYBRID-TREFFTZ FE SOFTWARE WITH AUTOMATIC P-ADAPTIVE REFINEMENT OPTION

Ionut Dragos Moldovan (IST)

Ildi Cismasiu (ildi@fct.unl.pt)
- Preservation of built heritage
- Optimization of grout performance for old stone masonry consolidation
- Rheological characterization under pressure
- Injection in reduced models to analyze the injectability of grouts
- Incorporation of nano-particles and hydrophobic admixtures

Fernando Henriques
(fh@fct.unl.pt)

Paulina Faria
(paulina.faria@fct.unl.pt)
ECO-EFFICIENT MORTARS AND PLASTERS

Paulina Faria
(paulina.faria@fct.unl.pt)
CLIMATOLOGY IN MONUMENTS

Sponsored by the World Monuments Fund (Portugal)

Fernando Henriques (fh@fct.unl.pt)

May the increasingly number of visitors have a negative impact on the cultural heritage of Portugal?
**Objectives**

1. Increased knowledge sharing between the various European research centers and industry
2. The development of novel concepts for adaptive facades
3. The development of new knowledge such as effective evaluation tools/design methods for adaptive facades

**Energy Flexible Buildings**

1. Development of common terminology, a definition of 'energy flexibility in buildings' and a classification method
2. Energy flexibility potential in different buildings and contexts, and development of design guidelines, control strategies and algorithms
3. Demonstration of energy flexibility through experimental and field studies.

**Support program**: Interreg Sudoe Transnational Cooperation Program  
**Project code**: SOE2/P1/E0677  
**Execution period**: 2018-04-01 to 2021-03-31 (36 months)  
**Amount of eligible investment**: 2,098,069.51 Euros

**First**: Mapping flexibility of urban energy systems (Daniel Aelenei PI)  
**MITEXPL/SUS/0015/20** - With the support of Prof. Leon Glicksman, Professor of Building Technology and Mechanical Engineering at MIT

**Partner institutions**: 

- 

**Daniel Aelenei**  
(aelenei@fct.unl.pt)
• Numerical modelling of mechanical problems

• Probabilistic analysis of geotechnical problems

• Fundamental and classical engineering problems: improvement of the available solutions

• Geotechnical characterization
FCT NOVA

RESEARCH IN CIVIL ENGINEERING

TRANSPORTATION INFRASTRUCTURES

MARINE HYDRAULICS

Maria da Graça Neves
(mg.neves@fct.unl.pt)

MATERIALS CHARACTERIZATION AND DEVELOPMENT OF NEW MATERIALS

Rui Micaelo
(ruilbm@fct.unl.pt)
FCT is “COOL”