

Frederick University

Research Structure – Research Activities

By:

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Vice Rector of Research, Development and International Relations



FREDERICK UNIVERSITY

Office of the Vice Rector
Research, Development and International Relations

Contents

- ❖ University General Profile
- ❖ Research Structure and Services
- ❖ Frederick Research Center - FRC
- ❖ Research Teams and Laboratories



FredU Foundation and History

- ✦ **Founded in 2007** among the first private universities in Cyprus
- ✦ **Two campuses**
 - ✦ **Nicosia**, capital city
 - ✦ **Limassol**, 2nd largest city and main port
- ✦ **Long history** in tertiary education (> 55 years)



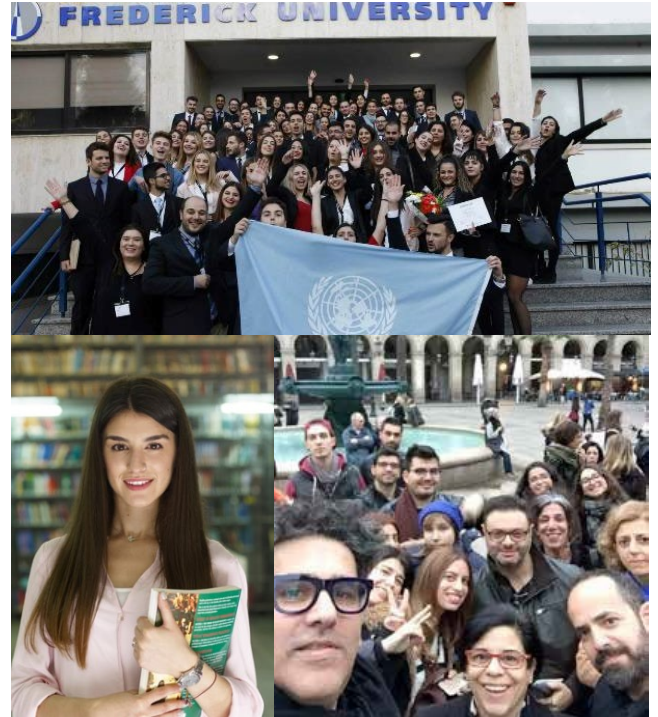
Mission and Vision

*“The provision of learning opportunities through **teaching** and **research** in the areas of science, technology, literature, and the arts, as well as a **systematic contribution** to the wider social context”*

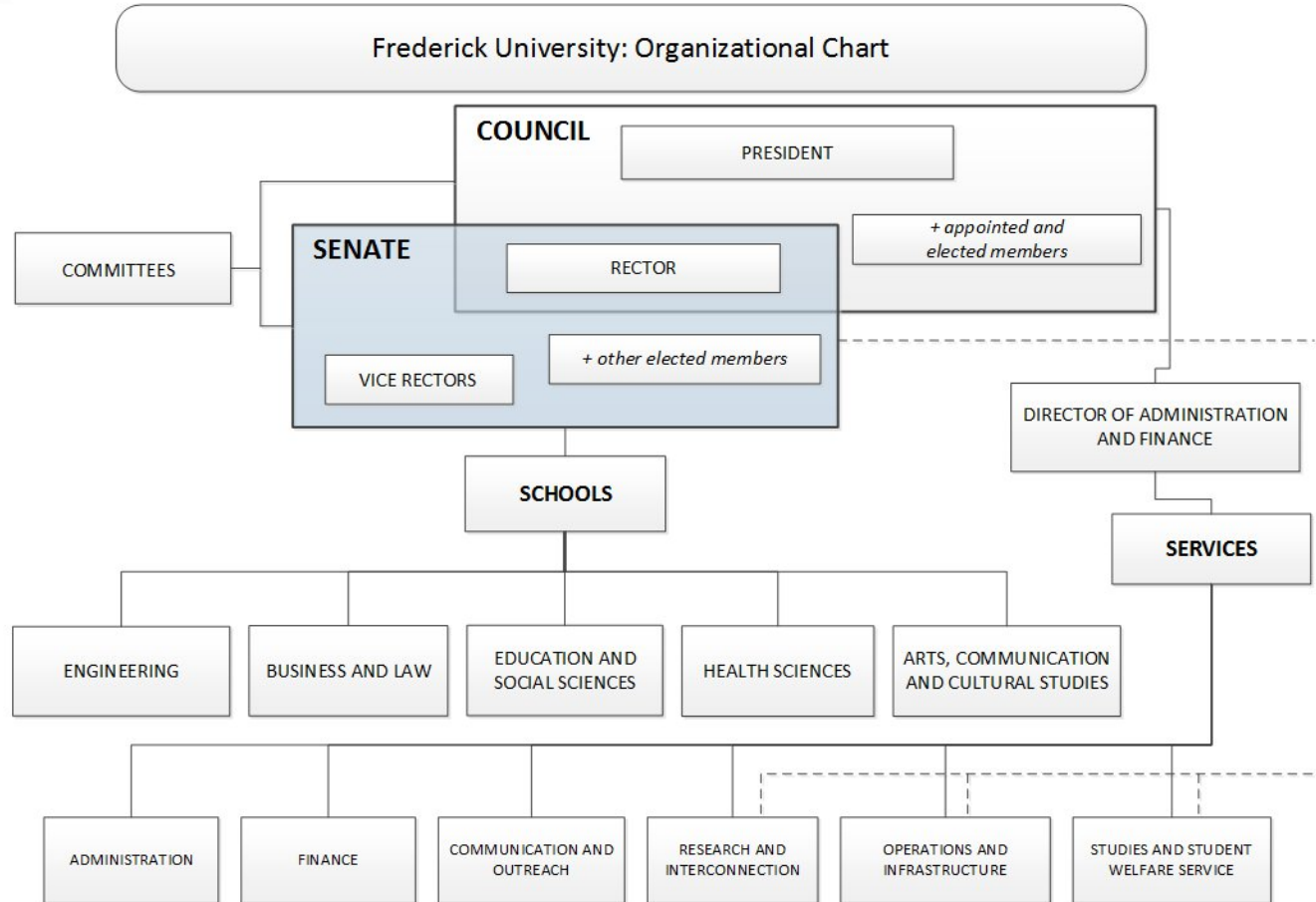
Embrace a strong **student-centric approach**, promising to our students that we will help each to achieve their potential

Committed to the actively contribute to the **UN Sustainable Development Goals** and member of the Leadership Council for the SDSN

Aspire to remain a vibrant cell for positive change for the **society**, locally and internationally.



Organization Structure



The University in Numbers

PROGRAMS

- **12** PhD
- **30** Masters
- **27** Bachelors

STUDENTS

- **4,500+** students
 - 2,000 undergraduate
 - 70% Cypriots
 - 25% EU
 - 5% third countries
 - 2,500 postgraduate

FACULTY & STAFF

- **300** academics and research staff
- **75** administration personnel



Schools – Departments - Programs





School of Engineering

- The largest School of the University
- Departments of
 - Electrical
 - Computer
 - Mechanical
 - Civil
 - Architecture
- 9 Bachelors, 10+ Masters, 5 PhDs
- Long history and recognition



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School of Business and Law

- Departments of:
 - ☐ Law
 - ☐ Business
 - ☐ Maritime Transport & Commerce
- 5 Bachelors, 6 Masters (5 DL), 1 PhD
- High employment record, successes in professional exams



School of Health Sciences

- Youngest School, highest growth
- Departments of:
 - Nursing
 - Pharmacy
- Students awards and recognitions



School of Education and Social Sciences



- Departments of:
 - ❑ Education
 - ❑ Psychology and Social Work
- Wide range of DL postgraduate programs
- 5 Bachelors, 10+ Masters, 3 PhD programs



School of Art, Communication and Cultural Studies

- Established as leading school in the field
- 100+ awards and recognitions
- High representation in sector
- 5 Bachelors, 4 Masters, PhD



Components of Research Structure

- [Vice Rector of Research](#), Development and International Relations
- [Office of Research](#) and [Interconnection](#)
- [Frederick Research Center](#) (FRC)

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Office of the Vice Rector
Research, Development and International Relations

Vice Rector of Research

- VR of [Research, Development and International Relations](#)
- [Elected](#) by academic staff for 4-year terms
- Responsible for the [Research Vision and Strategy](#) of the University
- Ensures that [Departmental Research Strategies](#) are in-line with the Research Strategy of the University. Selection of [KPIs](#) and monitoring of the degree of achievement
- Responsible for the development of [Policies](#), [Procedures](#) and [Educational Activities](#) that support research
- Cultivate and maintain a [Culture](#) among faculty and students for the production of high quality research

Research & Interconnection Service

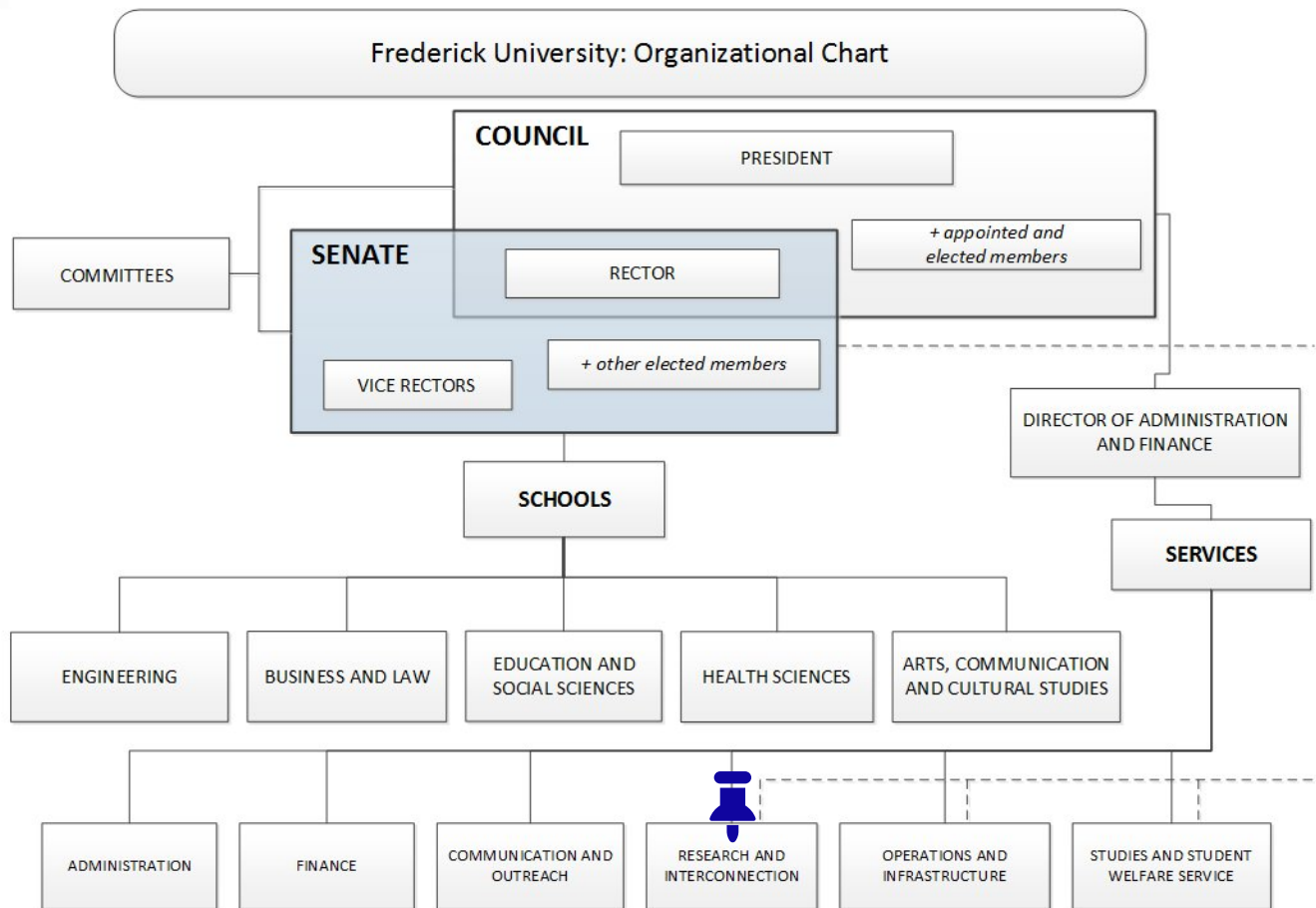
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Office of the Vice Rector
Research, Development and International Relations

R&I Service at the University



Research & Interconnection Service Mission



Act as an effective **in-house consulting service** facilitating the Research and Innovation activities of the University.

Promote and drive the **Transfer of Knowledge** and **Interconnection** goals of the University with the local community and other Universities and RTOs in Cyprus and abroad.



Research & Interconnection Office - Activities

- **Assist** departments in developing and applying research strategies
- **Identify** research-funding opportunities and partnerships
- Assist in the **financial administration** of funded projects
- Support in **proposal preparation**, especially on admin, legal and budgeting
- Support with project implementation, on **admin, legal, financial management & reporting**
- Support with **networking**



Research & Interconnection Office

- The R&IS has three offices
- The Research Office, is responsible for the promotion of research engagement, the support of academic staff in their research endeavors and the management of funded research projects.
- The Mobility Office is responsible for promoting the mobility of students, academics, and administrative personnel with other educational institutions abroad.
- The Liaison Office is responsible for interconnecting the university with the industry and other governmental and non-governmental agencies to ensure the close relationships, the inter-exchange of information and the placement of students where needed. Within the scope of the Liaison Office is the administration of training and vocational programs.



Knowledge Transfer

- FredU has adopted an **Intellectual Property Policy** to support and facilitate Knowledge Transfer. The policy is based on internationally accepted principles that govern the [ownership rights](#) emanating from research of and/or materials produced by the University's members of staff and students, and establishes objectively fair and equitable [criteria for the transfer of knowledge](#).
- The University has adopted the **Republic of Cyprus National Open Access Policy to Scientific Information**, which was approved by the Council of Ministers in February 2016. Under this policy, researchers who secure funding from [publicly funded projects](#) are expected to maximise the [accessibility, use and application](#) of their findings.
- Furthermore, the University, through the [Cyprus Libraries Consortium](#), has entered into [transformative agreements](#) with several publishers allowing to a great extent the “free” open access publication of scientific articles.

Knowledge Transfer

- **Activities and support** administered by the **Research & Interconnection Service**. Even though the resources that can be applied to support some of this activities are limited, there is knowhow and noticeable activity in some areas.
- The **Research & Innovation Office** handles all **scientific & technical consulting agreements** with the industry as well as occasional needs for **licencing agreements** and basic **spin-off** support and advising.
- The **Training & Certification Center** provides know-how transfer through **professional development or vocational trainings** to the industry and other organizations.
- The **Industry Liaison Office** promotes cooperation of mutual benefit between **the university and the industry** through student placements and the identification & assessment of **business needs** and their match with the available know-how for cooperation in seeking solutions.

Networking - Publications

- **Networking and Internationalization are strategic goals of FredU.**
- Active MoUs with [Government Agencies and NGOs](#) and private sector organizations in Cyprus
- [Collaborations](#) with other research groups through common funded projects mainly European but also with Southeast countries (e.g. Thailand, Erasmus-Mundus program)
- Several collaborations were the result of faculty participation in [COST Actions](#)
- Announcing soon an internal [Research Call for Access to Research Capacity and Networking with outside partners](#)
- In the process of finalizing a new [Publications Boosting Plan](#) with specific incentives to further increase high quality journal publications
- Specific measures and incentives for high quality [publications by PhD students](#)

Frederick Research Center

LEADING ROLE IN
SCIENTIFIC & TECHNOLOGICAL
RESEARCH & INNOVATION



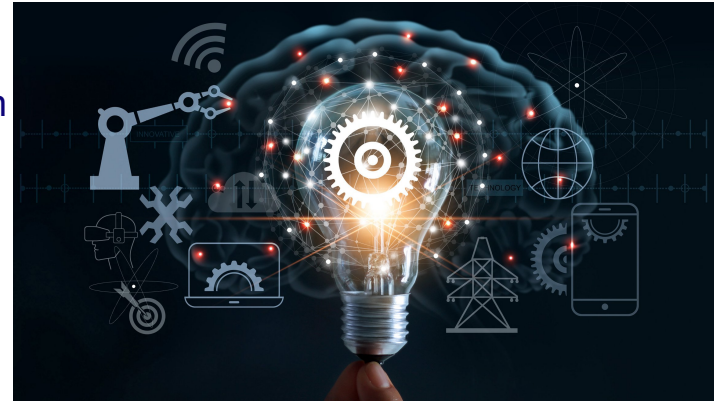
FREDERICK UNIVERSITY



FREDERICK
RESEARCH CENTRE

FRC's Mission & Goals

- A leading **research non-profit organization** in Cyprus established in 1997 to create a solid foundation for the development of scientific research activities
- Promote **scientific research** and **knowledge transfer**
- Encourage the formation of Research, Development & Innovation **proposals** and the sound implementation of externally **funded RDI** projects
- Establish **collaborations** with other national and international research Centers and Universities as well as the Industry & SMEs for the execution of research work and tech transfer



Collaborative – Bottom-up Approach



FRC encourages the **Bottom-up & Collaborative** approach for development of ideas and therefore the projects implemented under FRC cover a broad range of **interdisciplinary** research interests

Majority of projects concern the domains of **Applied Sciences and Technology**



Systematic effort to increase involvement in research programs relevant to **Environment, Education, Economics and Social Sciences.**







Office of the Vice Rector
Research, Development and International Relations

- **Steady growth in:**
 - Externally funded research projects
 - Publications (significant increase in past few years)
- **Funded Projects Experience**
 - Numerous R&D and consulting projects (~€18mil in external funding from 2007, €6.3mil in 2019-20)
 - Majority coordinated by FredU faculty and researchers
 - National competitive funding (RIF), but also EC's H2020, FP7, ESA, LIFE, REC, ERASMUS+, INTERREG

FRC's Achievements

FRC has developed a rich, varied research work and collaborations through which it became one of the successful and key Research Centers in Cyprus

European: FP6, FP7, Horizon 2020 | Regional: INTERREG | National: RPF/RIF DESMI Framework, RESTART 2016-2020

25

Years of
Research
Experience

137

Externally
Funded Projects

18

Million €
In Funding

60

Researchers



FREDERICK UNIVERSITY



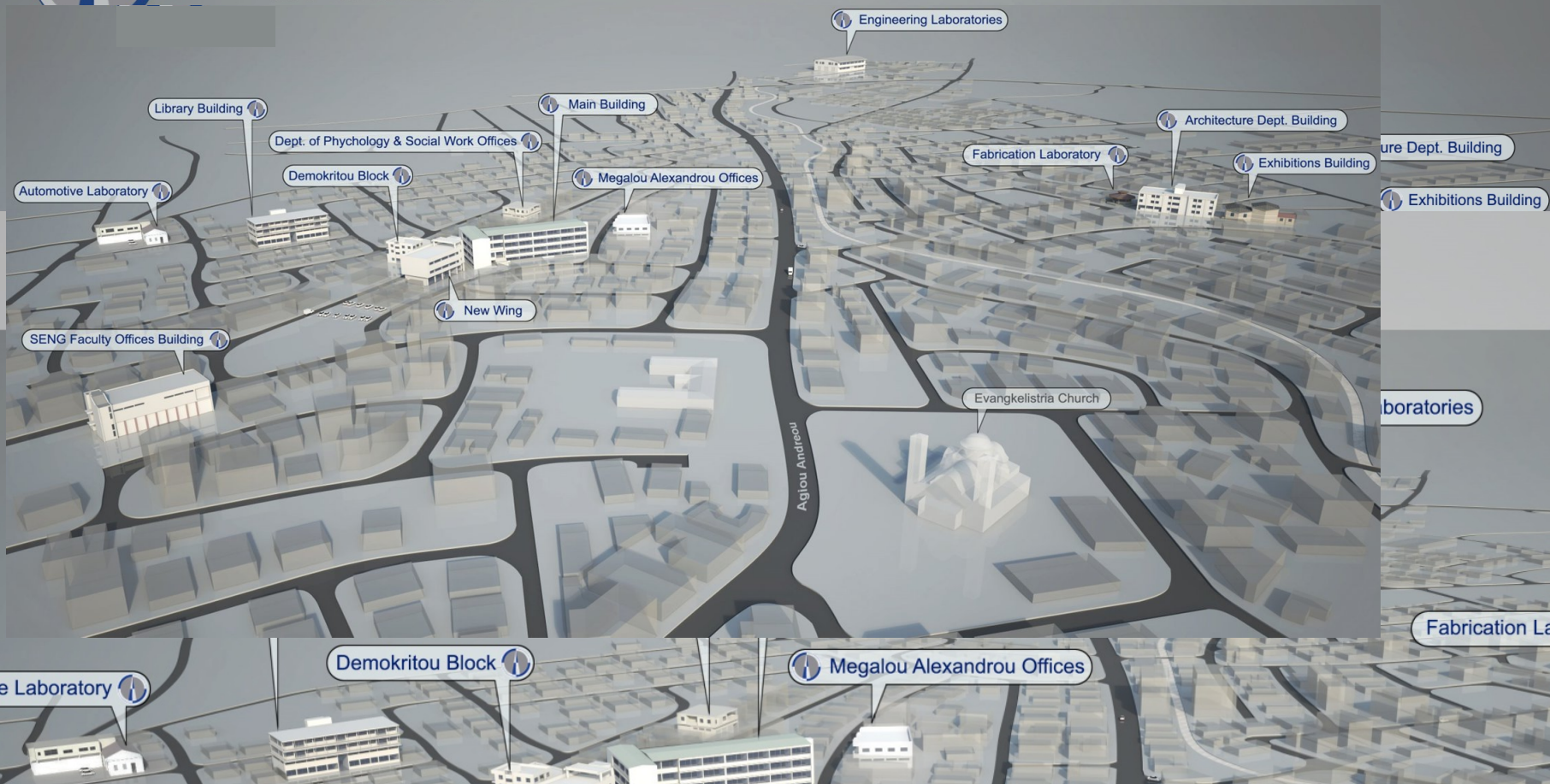
FREDERICK
RESEARCH CENTER

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Research, Development and International Relations



Free Press University of Nicosia Infrastructure and Laboratories - Nicosia

MAP & BUILDINGS



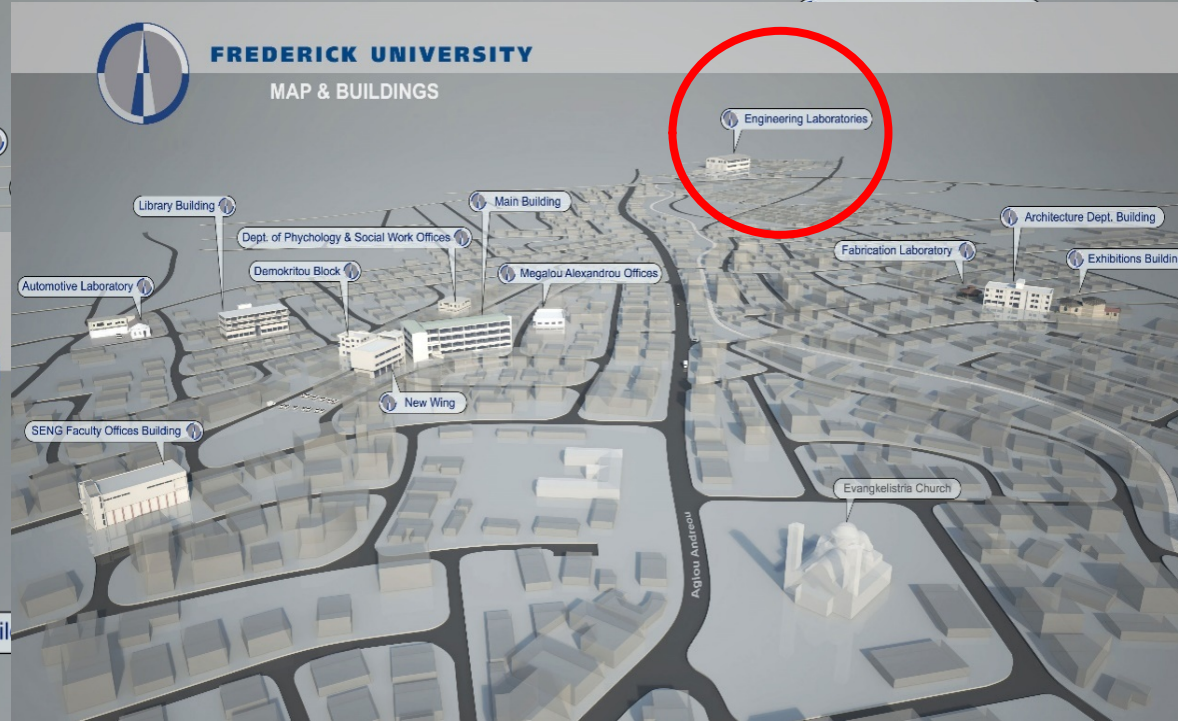
Infrastructure and Laboratories - Nicosia





FREDERICK UNIVERSITY Laboratory of Mechanics

MAP & BUILDINGS



Engineering Laboratories

Fabrication La





FREDERICK UNIVERSITY Laboratory of Mechanics

MAP & BUILDINGS



Laboratory of Mechanics
Dept. of Civil Engineering
Dept. of Mechanical Engineering
Total building area: 1200m²



Architecture Dept. Building

Exhibitions Building

Engineering Laboratories

Fabrication Lab

Library Building

Demokritou Block

Megalou Alexandrou Offices

Automotive Laboratory



FREDERICK UNIVERSITY Laboratory of Mechanics

MAP & BUILDINGS



Library Building

Architecture Dept. Building

Exhibitions Building

Engineering Laboratories

Fabrication Lab

Demokritou Block

Megalou Alexandrou Offices

Automotive Laboratory

Library Building



Infrastructure - Limassol



- Limassol focuses on programs that don't require laboratories
- Base campus for Education, Social Sciences and Maritime studies



Research Groups - Overview

@ Frederick University



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Office of the Vice Rector
Research, Development and International Relations

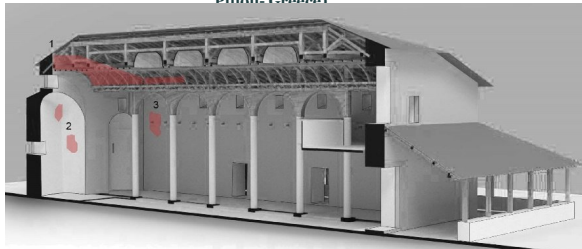


Mount Athos- Dochiarios Monastery- The Katholikon (Constructional Analysis of the Roofing)

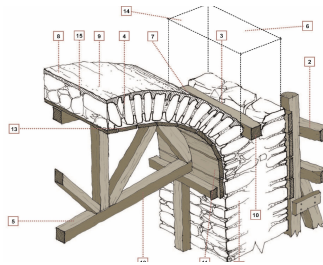


Traditional Settlement Analysis (Kapedes Village)

Constructional Analysis (Ayia Marina Piliou, Greece)



Documentation of a ruined chapel (Panagia Akentou- Lefka)- (Photogrammetry 3D Model)



Anavatos Settlement-Greece (Detail of repair proposal)



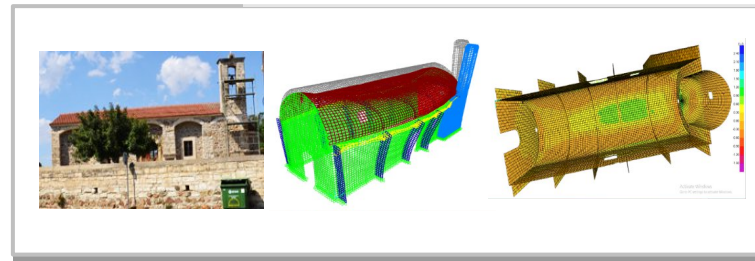
Archaeological Site Documentation (Photogrammetry)

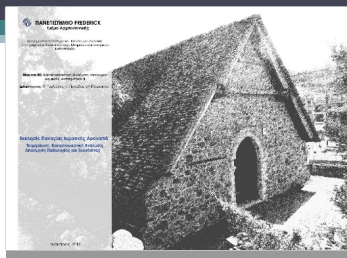
Research Unit for Historical Constructional Systems

Dealing with Historical Complexes, Archaeological Sites, Historical Structures and Monuments:

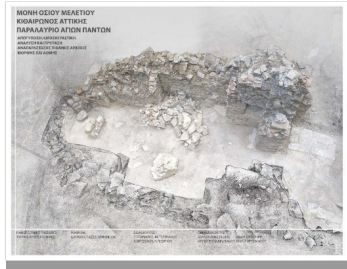
- Historical, Typological, Morphological Analysis and Documentation
- Geometrical Documentation (Conventional and/or Digital Methods)
- Constructional and Structural System Analysis

Assessment of Damages of Ayia Marina Church – Mosfiloti)

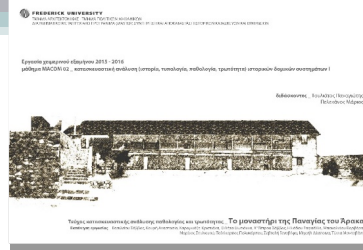




**Project
Timber-Roofed
Church of Panagia
Iamatiki
Arakapas Village**



**Project
Ruined Church of Agion Panton
Kitheronas,
Greece**



**Project
Timber-Roofed
Monastery
Complex
Panagia Araka
Lagoudera
Village**



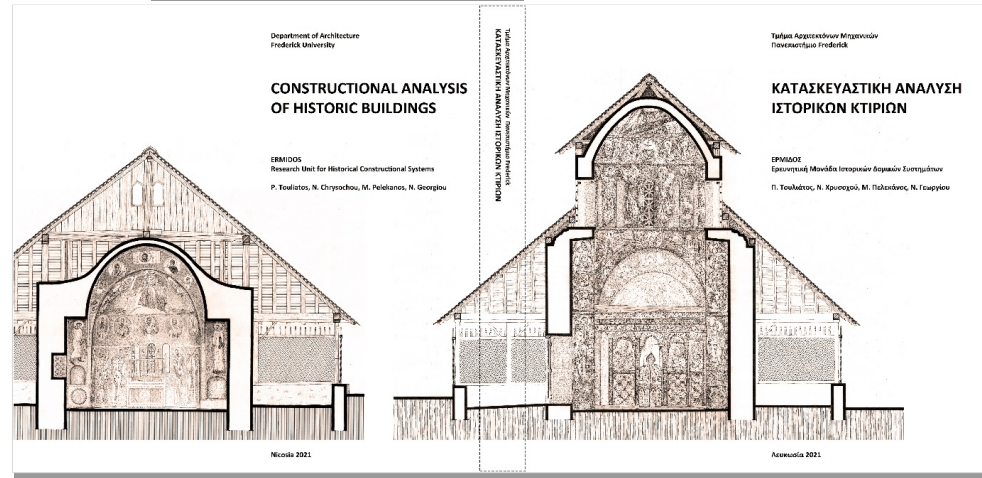
**Project
Church Complex
Osios Meletios
Monastery
Kitheronas,
Greece**

Research Unit for Historical Constructional Systems

Dealing with Historical Complexes,
Archaeological Sites, Historical Structures
and Monuments.

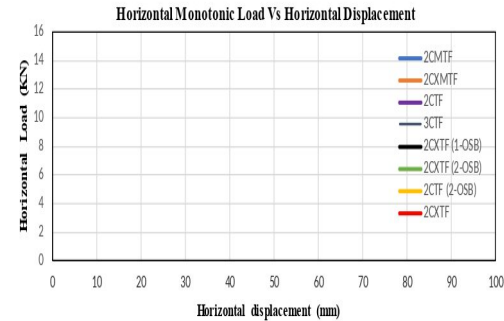
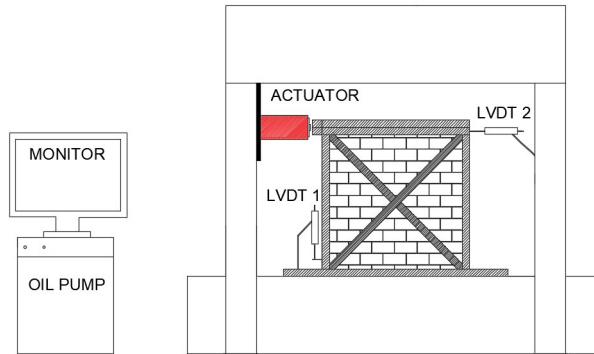
- Projects
- Publications

**"Constructional Analysis of Historic
Buildings"
Publication May 2021.
ISBN 978-618-204-067-6**



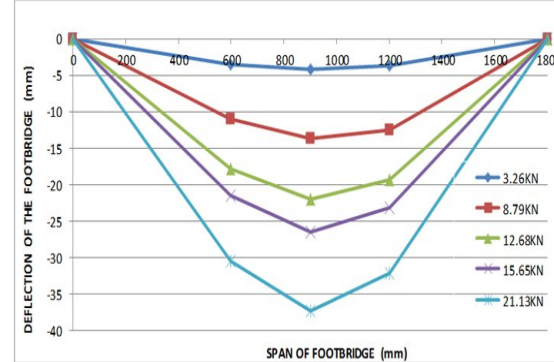
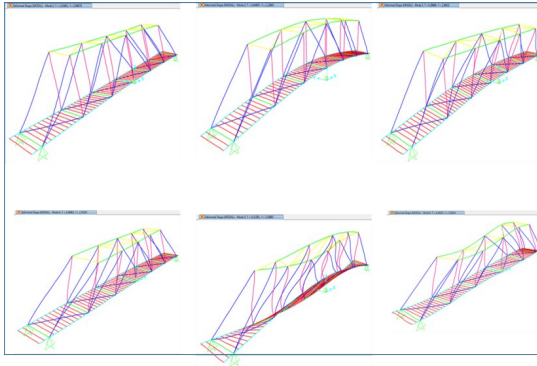
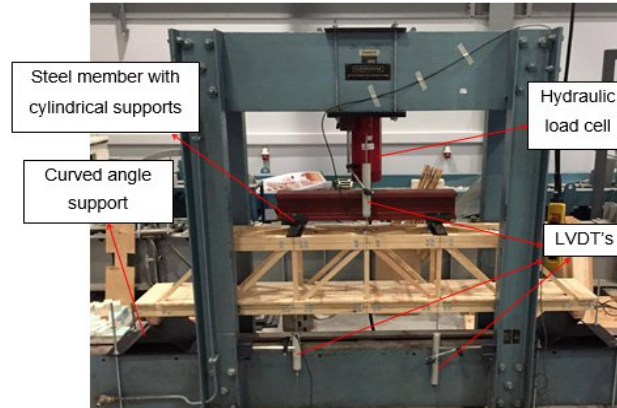
Structural & Earthquake Engineering Lab. Unit

Laboratory Tests on Structural Elements



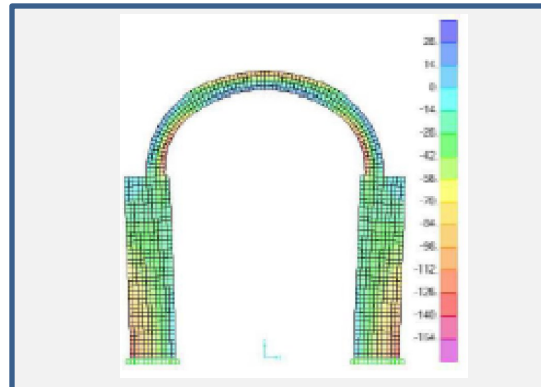
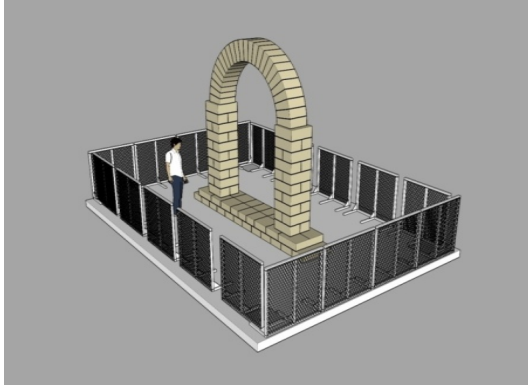
Structural & Earthquake Engineering Lab. Unit

Laboratory Tests on Model of Timber Bridge



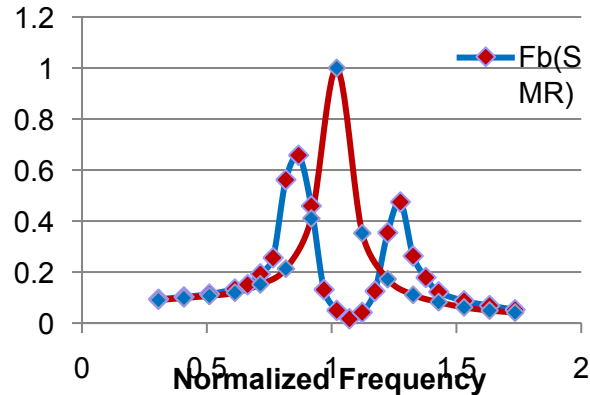
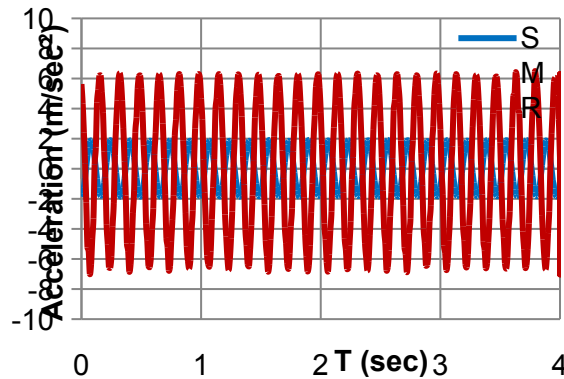
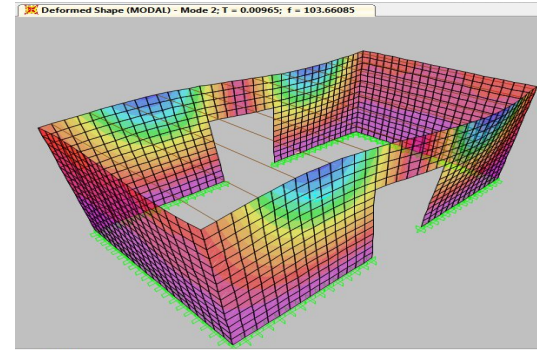
Structural & Earthquake Engineering Lab. Unit

Design - Construction - In - Situ tests and Numerical Simulations



Structural & Earthquake Engineering Lab. Unit

Earthquake Experimental Test of Model Structures on the Shaking Table





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Nature Conservation Unit





NATURE CONSERVATION UNIT

- Established in 2005. First group in Cyprus dealing with nature conservation academically.
- NCU specialises on biodiversity conservation, natural resources management and conservation, and environmental education and awareness in Cyprus.
 - study, monitoring, management and conservation of the Cyprus flora, fauna and habitats of Cyprus
 - conservation and management of ecologically important areas of the island
 - promotion of awareness and education among the people of Cyprus about major environmental issues





NATURE CONSERVATION UNIT

- The NCU has developed important initiatives and a multidimensional research work
- Broad network of associates (both locally and abroad)
- Research projects ~50, (€34,8 mi, NCU's budget €4,6 mi)
- Funding from: Research Promotion Foundation of Cyprus, the European Commission, the UN and the Republic of Cyprus
- Research infrastructure, both for laboratory work and fieldwork



Sustainable Energy Research Group (SERG)

- State-of-the-art research in sustainable energy resources and building physics
- SERG, accredited with ISO 9001:2015, operates under high quality standards and guarantees excellence and scientific reliability.

SERG activities include:

- research in the fields of:
 - **experimental and computational building physics**
 - **sustainable energy technologies**
- **Laboratory and consulting services**

SERG Infrastructure

SERG's infrastructure includes **three** labs:

- **The sustainable solid fuels laboratory** equipped with the required infrastructure for the physical, proximal and elemental assessment of solid fuels, including biomass and biofuels.
- **The boilers laboratory** consists of four boilers, all equipped with the required devices for determining the temperature and boiler operating pressure, as well as to implement the exhaust gas analysis for the definition of the combustion conditions
- **The building physics laboratory**, tests and measurements of the thermal behavior of building elements and of buildings, based on international and European standards.

SERG's has **software full licenses** for:

Comsol, GaBi,) Aspen+, Solid Works, Autodesk Revit, One Click LCA

SERG Ongoing Projects

Project acronym	Project Title	Start/End Date	Funded from	Project webpage
eUMaP	Development of Utilities Management Platform for the case of Quarantine and Lockdown	2021-2024	Horizon 2020	https://eumap-project.eu/
PRECEPT	A novel decentralized edge-enabled PREsCripTivE and ProacTive framework for increased energy efficiency and well-being in residential buildings	2020-2023	Horizon 2020	https://www.precept-project.eu/
D ² EPC	Next-generation Dynamic Digital EPCs for enhanced quality and user awareness	2020-2023	Horizon 2020	https://www.d2epc.eu/en

SERG Ongoing Projects

Project acronym	Project Title	Start/End Date	Funded from	Project webpage
STABLE	Structural Stability Risk Assessment	2018-2023	Horizon 2020	https://www.stable-project.eu/
YENESIS	Youth Employment Network for Energy Sustainability in Islands	2018-2022	EEA and Norway Grants Fund for Youth Employment	https://yenesi.eu/
SupERB	Novel integrated approach for seismic and energy upgrading of existing buildings	2019-2022	Research and Innovation Foundation	https://superbcy.com/
UP PeriScope	Portal for Heritage Buildings Integration into The Contemporary Built Environment	2019-2022	Research and Innovation Foundation	https://uperiscope.cy.ac.cy/

Established in July, 2012 – promote **teaching** and **research** in the fields:

- Web & Smart Systems
- Mobile & Edge Computing
- Cloud Computing
- Artificial Intelligence
- Big Data Management
- (Multi-Objective) Optimization
- Constraint Handling

as well as **design & development** of

-  **Smartphone
Smart Systems**

- Three (3) Academic Staff,
- One (1) Project Manager,
- One (1) Post-Doc Researcher,
- Five (5) PhD students,
- Two (2) Senior Developers,
- Three (3) Junior Developers



**Web-platforms and
Systems
Web sites**

MDL Team:

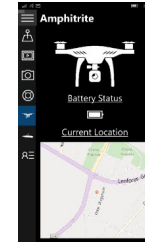
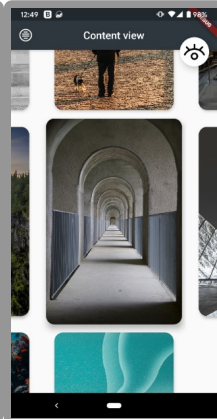
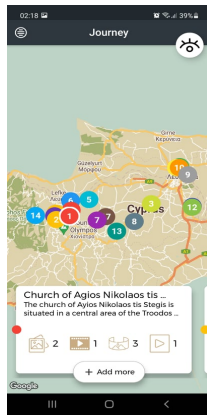
- Three (3) Academic Staff,
- One (1) Project Manager,
- One (1) Post-Doc Researcher,
- Five (5) PhD students,
- Two (2) Senior Developers,
- Three (3) Junior Developers

MDL R&D - Scope

“Transfer/Apply generated knowledge from research activities and project outcomes to create impact on multiple channels”

Private/Industry | Public/Government | Society/Community | Research/Science

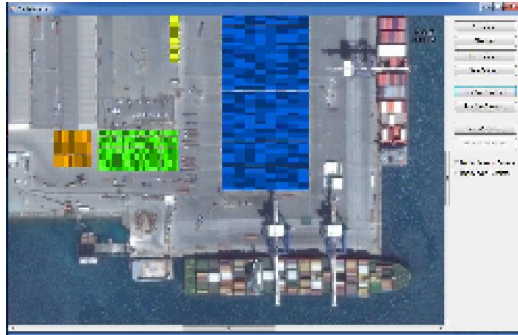
- ❖ >100 Peer-reviewed Publications
- ❖ >20 Research Projects
- ❖ >50 Industrial Project and Public Procurements
- ❖ >20 Applications that contribute to the society



Control And Transportation Research Lab

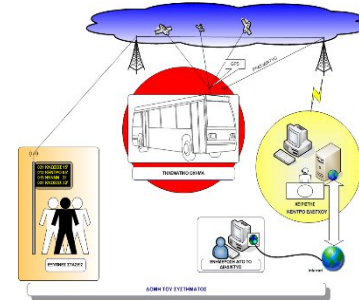
- ❑ **Approach:** “Apply Advanced Control and Optimization Methods to develop Intelligent Algorithms for Transportation Networks”
- ❑ **Relevant Projects:**

INTERREG PRODROMOS



- Port of Limassol Simulation
Model / Secure Transport of
Dangerous Cargo

INTERREG EY-KINISIS



Bus Telematics in Limassol

Control And Transportation Research Lab

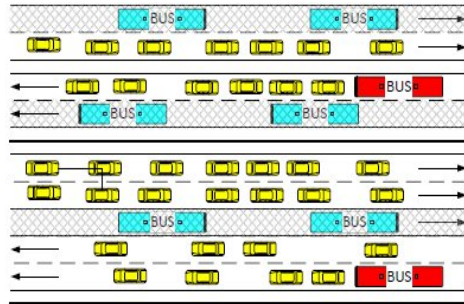
- ❑ **Approach:** “Apply Advanced Control and Optimization Methods to develop Intelligent Algorithms for Transportation Networks”
- ❑ **Relevant Projects:**



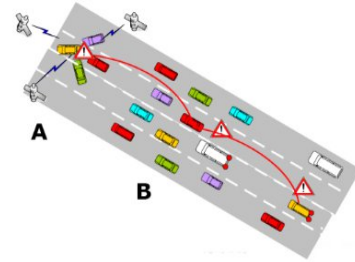
**RPF
TRAFFICNET**

Intelligent Transportation Systems-
Automated Highways

**RPF
BUSSIM**



Bus Rapid Transit in Archangelou
Avenue



**RPF
EMVANETS**

Vehicular Ad Hoc Networks

NETLAB NETWORKS RESEARCH LABORATORY

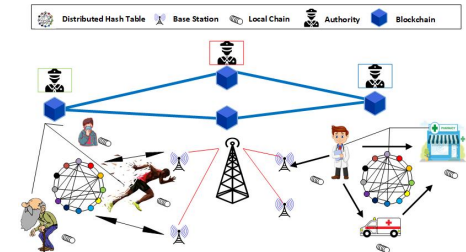
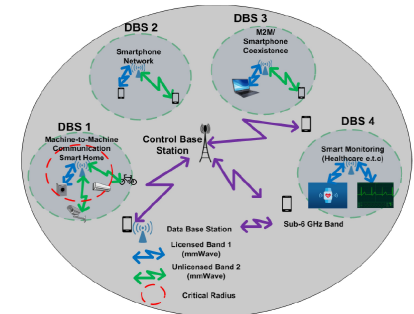
Research | Innovation | Development

W: <http://netlab.frederick.ac.cy/> | e: netlab@frederick.ac.cy

Communication Networks and Systems

Design and performance analysis, Energy Efficiency, Reliability, Resource Allocation:

- ✓ 5G-and-beyond networks / 6G networks
- ✓ Communication technologies in Smart systems (home, transportation, healthcare)
- ✓ Communication technologies in Internet-of-Things (IoT) architectures (industrial, maritime)
- ✓ Security fault detection
- ✓ Blockchain technology in communication networks



Cyprus Ionospheric Research group (CylRG)

<http://cyirg.frederick.ac.cy/>

- Study lower and upper atmosphere
- Available infrastructure facilitating continuous remote sensing, within various parts of the electromagnetic spectrum



(CyIRG) Specific Research Interests

- ❖ GNSS monitoring of the upper and lower atmosphere
- ❖ Ionospheric modeling
- ❖ HF radar atmospheric remote sensing
- ❖ Earthquake precursory atmospheric phenomena
- ❖ Atmospheric effects on radio systems
- ❖ Flood forecasting through hydrological extensions in WRF models
- ❖ Extreme precipitation event monitoring through GNSS

AIM – Advanced Infrastructures and Materials Lab

- Areas of Expertise:

- Structural Analysis and Design
- Risk Analysis and Vulnerability Assessment
- Repair/Strengthening of existing structures
- Protection of Structures against Blast and Impact Loading
- Concrete Technology
- Sustainable Building Materials
- Valorization of solid waste for the development of innovative building products
- 3D Printing of Cementitious Materials



AMG Members

Head: Dr. Symeon Nikolaou

☐ 2 Faculty members

☐ 3 PhD students

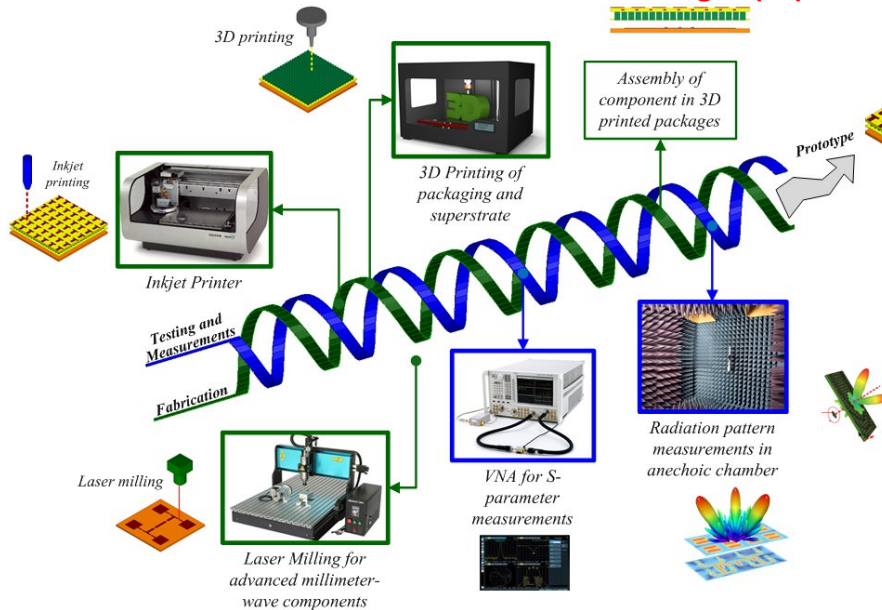
Research Activities

☐ Communication systems components

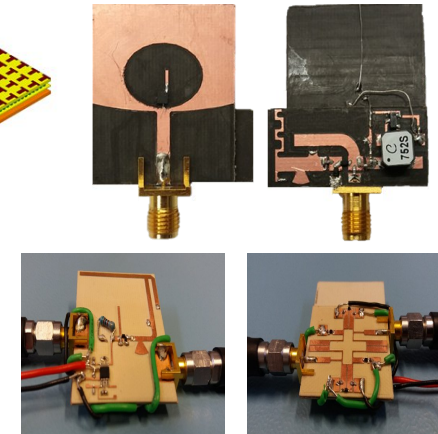
☐ IoT sensors

☐ Smart Cities hardware solutions

State-of-the-art Fabrication and Testing Equipment



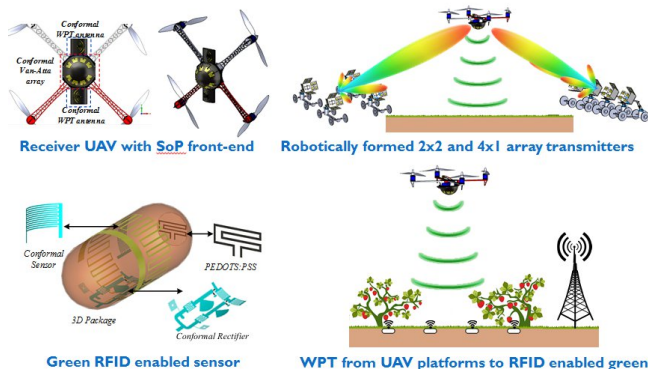
Implemented Prototypes



Wireless Power Transfer
enabled antennas and filters

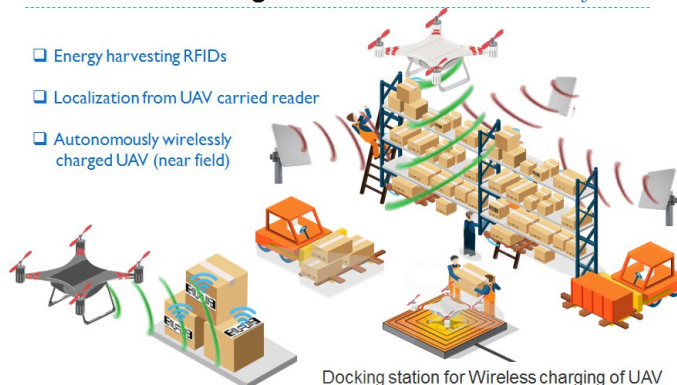
AMG on-going Research Projects on IoT components and novel-materials for potential Smart Cities applications

ICARUS - Robotically Controlled RADAR Inspired Wireless Charging for/from Flying UAV Platforms (Feb2020-Oct2022)

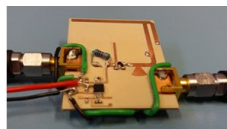


RFLiD - Flying RFID Reader for Enhanced Range and Near Zero Shadowing - RIF Pre-Seed Dec.2020 – May 2022

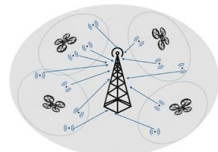
- Energy harvesting RFIDs
- Localization from UAV carried reader
- Autonomously wirelessly charged UAV (near field)



SWITCH - Simultaneous Wireless Information & Energy Transfer for low-powered Communication technologies (Dec2018 – May 2021)



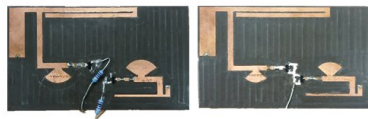
Integrated SOP WPT receiver



Wirelessly Powered Communications



Battery-less RFID



SISO/MIMO WPT System

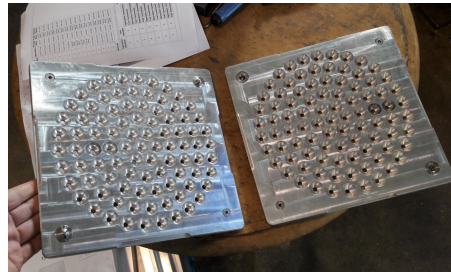
CompSafeNano- NanoInformatics Approaches for Safe-by-Design NanoMaterials – H2020 MSCA RISE September 2021 – August 2025



FredU – Nanocomposite metallic inks used in additive manufacturing – assessment and exploitation for “Green” electronics

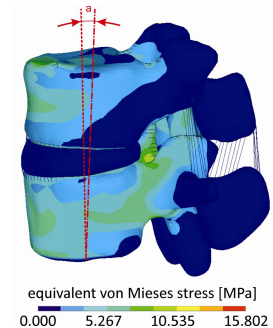
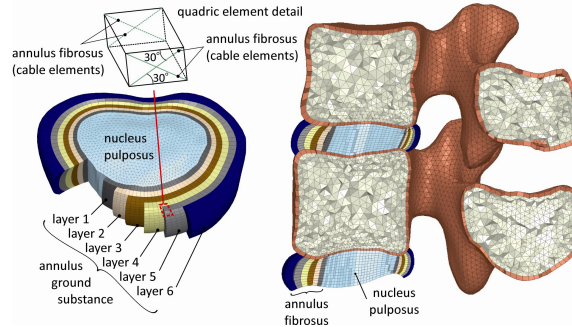
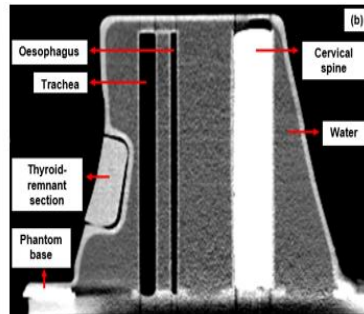
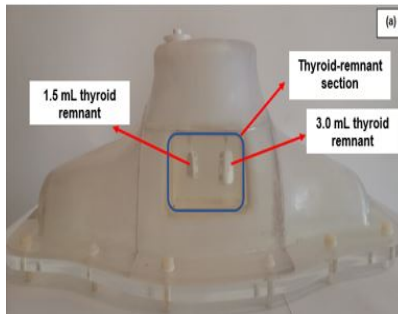
Manufacturing Technology and Engineering Design Unit

- Research in the field of [manufacturing and engineering design](#) of new and innovative products.
- Research facilities of the Center include CNC vertical milling machine, rapid prototyping machine, fatigue tester, press machine, electronic microscope precision-controlled heat-treatment furnaces, materials characterization instruments.
- Use of various engineering software packages for calculations, simulations and solid modelling.



Computational Biomechanics Unit

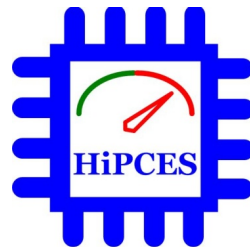
- Focusing on Inverse Dynamics and Finite Element simulations of the [Human Musculoskeletal system](#)
- Participation in several [national and European](#) research programs
- The team was nominated among the 3 finalists worldwide for the biannual «[Clinical Biomechanics Award](#)» of the International society of Biomechanics (ISB)
- The Laboratory is also represented in the national committee for «[Bioethics in Biomechanics](#)» and the council of the «[Hellenic Society of Biomechanics](#)»



Student Formula Racing Car Unit

- The main purpose of the team is to participate at the [Formula Student World Competition](#).
- Establish a successful Formula Student Racing Team in the University and give the opportunity to students to work with racing cars, search and find [new engineering solutions](#) thus enhancing and upgrading the performance of the car.

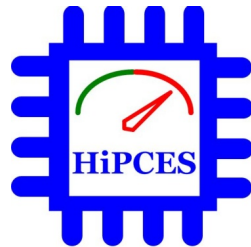




Hi-performance Computing and Embedded Systems Lab (HiPCES)

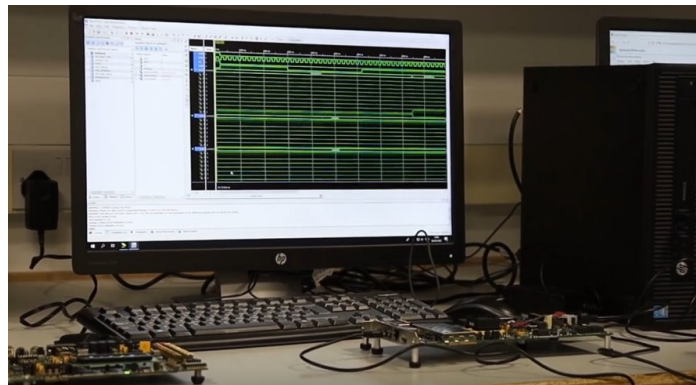
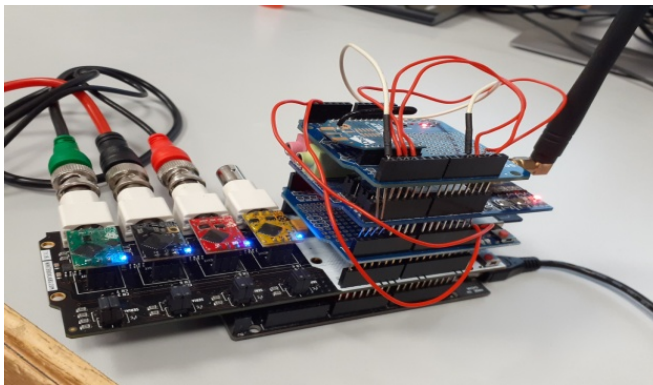
Research Areas

- High performance computer architectures
 - parallel microarchitectures
 - large scale parallel processing computing systems,
- Reconfigurable computing systems and applications
- Homogeneous-heterogeneous Systems-on-Chip (SoC) and Networks-on-Chip (NoC),
- Embedded and smart systems: development and implementation of hardware and software applications and tools, and
- Cloud and fog computing



HiPCES Infrastructure

- State of the art **reconfigurable computing** systems (FPGA boards and EDA tools)
- Xilinx **prototyping-evaluation** boards from low-cost Spartan to high-end ZYNQ-7000 SoC.
- **IoT infrastructure**, microcontrollers, analog and digital **sensors and actuators**.



Pharmaceutical Chemistry Research Group

Research in the following areas:

- Synthesis and characterization of new active compounds
- Synthesis and characterization of polymeric nanocarriers and other compounds aiming at targeted and controlled drug delivery
- Isolation and characterization of natural bioactive compounds



Biochemistry & Molecular Biology Research Group

The Biochemistry and Molecular Biology Group focuses on the following areas:

- Study of properties of **drugs & natural** products, such as antioxidant and antimicrobial activities
- ***In vitro* evaluation** of drugs in cell lines
- Design and evaluation of systems for targeted **drug delivery**
- **Genetic** basis of human disease



Social Welfare Research Team

Main Thematic Areas

Social and Humanities Sciences, Social Work research, Intimate partner violence, Child trafficking, Disabilities, Vulnerable groups, Women, Youth, Multiculturalism

Past Project Experience

- EU Solidarity Fund (EU-European Refugee Fund and EU-Integration Fund)
- Ministry of Interior (Asylum Seekers, European Refugee Fund)
- Ministry of Labour and Social Insurance
- Social Welfare Services
- Advisory Committee for the Prevention of Violence in the Family

Ongoing research activities

- HORIZON 2020, Reshaping democracies (HORIZON-CL2-2022-DEMOCRACY-01), submitted 20/4/22
- HORIZON 2020, Beyond the borders. Bridging communication for the development of participatory and democratic processes(HORIZON-CL2-2022-DEMOCRACY-02), submitted 20/4/22
- KA210-Youth-Small scale partnerships – To be submitted in October 2022.

Open and Distance Learning @ Frederick University



FREDERICK UNIVERSITY

Office of the Vice Rector
Research, Development and International Relations

Open and Distance Learning Center (ODLC)

Promote & further develop the open and distance learning at the University and in society in general.

Specifically, it aims to:

- **Educate, train and support** (researching and teaching) instructors and students who are involved in teaching and learning in open and distance learning environments, through the pedagogical **utilization of new and emerged technologies**,
- Promote **research in the fields of open and distance education** and learning, and providing advisory services,
- Organize educational programs and **training activities for instructors** and students with the aim of pedagogical utilization of up to date distance education and learning technological tools,
- **Develop quality educational interactive/digital material** for use in distance learning programs of undergraduate and postgraduate level, conventional, mixed and distance learning,



Maritime Transport & Commerce

University activities relevant to EU Connexus

Indicative Ongoing Research Projects:

- **Blue Limassol Forum**; engaging citizens in decision making for Blue Growth and Environmental Sustainability
- First collective risk assessment study on all sectors influencing the Limassol coastal environment.
- LIFECALLIOPI - Coastal dune habitats. Conservation, protection, and threads,
- Yenesys - Youth Employment Network for Energy Sustainability in Islands



LIMASSOL MUNICIPALITY



FREDERICK UNIVERSITY



FREDERICK UNIVERSITY



LIMASSOL MUNICIPALITY



FREDERICK UNIVERSITY



BLUE LIMASSOL
FORUM
2022

A holistic environmental risk assessment of Limassol coastal area

Dr Angelos Menelaou,
Head of Dept of Maritime Transport & Commerce

Dr Michael Macrominas,
Dept of Maritime Transport and Commerce

University activities related to EU Connexus

Indicative Completed Research Projects:

- ECOPORTIL- Environmental Protection of Areas Surrounding Ports
- Analysis of Port of Haifa productivity, on behalf of Israel Shipyards Ltd
- Plan for the Sustainable Development of the Akamas Natural Forest Park.
- Pyrgos Fragile and Unspoiled. Green coast prior "development" (workshop).
- Sustainable Design in Coastal Areas (Life Long Learning Programmes)



The poster for the ECOPORTIL project features a central blue speech bubble with the text "ECOPORTIL Environmental Protection of Areas Surrounding Ports using Innovative Learning Tools for Legislation". Above the bubble, it says "Blue Growth, Port to the Future!". To the right of the bubble are five circular icons representing different countries: Greece, Romania, Bulgaria, Hungary, and Italy. At the top left, the "Interreg" logo is displayed next to the European Union flag, with the text "Balkan-Mediterranean ECOPORTIL Environmental Protection of Areas Surrounding Ports using Innovative Learning Tools for Legislation". At the bottom, there are logos for the Ministry of Economic Development, the University of the Aegean, the Aegean Ports Infrastructure Co., and the Frederick Research Centre. A small text at the bottom right states: "Project co-funded by the European Union and National Funds of the participating countries".

Delivering innovative online learning:

- Environmental Impacts, Policies and International Conventions for Shipping and Ports
- Oil Pollution & Ballast Water Management
- Air pollution,
- Waste Management at Ships and Ports
- Ecomapping of the Environmental Condition in the Ports
- Environmental Management Systems (ISO, EMAS, PERS)
- National Legislation





SOLID & LIQUID WASTE



HIGH RISE BUILDINGS



PORTS & SHIPPING



OIL & GAS ACTIVITIES



AQUACULTURE & FISHERIES



MARINAS & RECREATIONAL YACHTING



**ENVIRONMENTAL
PRESSURE & RISK**



Sustainability



*Are we suitably prepared
to manage an incident?*



Limassol Coastal Area





Thank you