14. Οδηγός ΞΠΠΣ, δίγλωσσος, στην ελληνική και την αγγλική γλώσσα (με πιστωτικές μονάδες ECTS, προσδοκώμενα μαθησιακά αποτελέσματα)

(Στα Αγγλικά)

Ξενόγλωσσο Προπτυχιακό Πρόγραμμα Σπουδών

Bsc in “Information Technology”

Όπως εγκρίθηκε από την

214η Συνέλευση της Σχολής Ψηφιακής Τεχνολογίας 07.05.2026

Study Guide

Foreign Undergraduate Program

“Information Technology”

As approved by the 214th Assembly of the School of Digital Technology on 07.05.2026

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Introduction

Greetings from the Dean of the School of Digital Technology

Dear Esteemed Students,

It is with great pleasure that I extend a warm welcome to you as the Dean of the School of Digital Technology. As you embark on your academic journey within the postgraduate study program, "Advanced Computing Systems and Applications," offered by the Department of Informatics and Telematics, I am excited about the opportunities that lie ahead.

Since our establishment in 2006, with the inaugural intake of students in the academic year 2007–2008, our department has consistently evolved to meet the dynamic demands of the international society and the IT market. Our graduates have set themselves apart by mastering the academic subjects of the program and their seamless integration into various fields of Informatics application. The promising career prospects for our alumni, coupled with the state-of-the-art infrastructure housed in a modern building, equipped with cutting-edge technology, will enhance your academic experience.

Beyond the acquisition of knowledge, participating in this postgraduate program aims not only to refresh your expertise in the field but also to cultivate critical thinking. In the rapidly evolving landscape of IT development, our aim is not solely to equip you with current tools and methodologies but to instill in you the ability to adapt, learn, and innovate, recognizing that today's cutting-edge technologies may be considered outdated in five years.

As the Dean of the School of Digital Technology, I extend my warmest welcome to you, our new students. My best wishes accompany you on this journey, urging you to seize the moment, expand your knowledge, and broaden the horizons of your academic and professional life.

Wishing you a successful and fulfilling course ahead.

Sincerely,

Professor Dimitris Michail

Dean of the School of Digital Technology,

Athens, 2026

Figure 1. Exterior View of the Main Building of Harokopio University.

To prospective students

Ten Reasons to Study at the Department of Informatics and Telematics at Harokopio University in Athens:

1. Modern Curriculum: (i) Responds to the challenges of science and technological developments (ii) Places significant emphasis on laboratory courses (iii) Provides practical skills essential for the job market.
2. Unique Specialization: It is the only department in Greece with a primary focus on Telematics. Its field of expertise is at the forefront of technological developments internationally.
3. State-of-the-Art Facilities: Located in a newly built, privately owned building with new and modern laboratories and educational infrastructure.
4. Excellent Organization and Administration: The department and institution are well-organized, aiming to minimize the loss of teaching hours.
5. Outstanding Collaboration: There is excellent cooperation between faculty and students, resulting in the completion of studies within the expected time.
6. Practical Experience: Through internships, students have the opportunity to apply their knowledge in modern and competitive companies based in the capital of the country.
7. High Employment Rates: Graduates have very high employment rates due to the high level of their training and the quality of the market linkage activities.

8. Further Study Opportunities: The knowledge and level of education allow for continuation in postgraduate programs at other departments in Greece or abroad.
9. Comprehensive Undergraduate Program: The modern undergraduate program covers the full spectrum of knowledge needed to succeed in the contemporary business environment.
10. Research Opportunities: At the postgraduate level, there is the possibility of conducting doctoral research, participating in high-level research projects, and engaging in projects and collaborations with research organizations and industries in the fields of Informatics and Telematics.

Harokopio University

History

Harokopio University, established in 1991 and chronologically the 18th university in the country, owes its inception to the visionary Professor Georgios Karabatzos (†2011). Named in honor of the national benefactor Panagis Harokopos, a forward-thinking member of the Greek diaspora with a European perspective, the university embodies his dream of an educational institution equipped with excellent infrastructure and facilities in harmony with the natural surroundings. This vision was made possible through the generous bequest of Panagis Harokopos and Evanthia Harokopou-Petroutsis, providing for the fulfillment of their wishes.

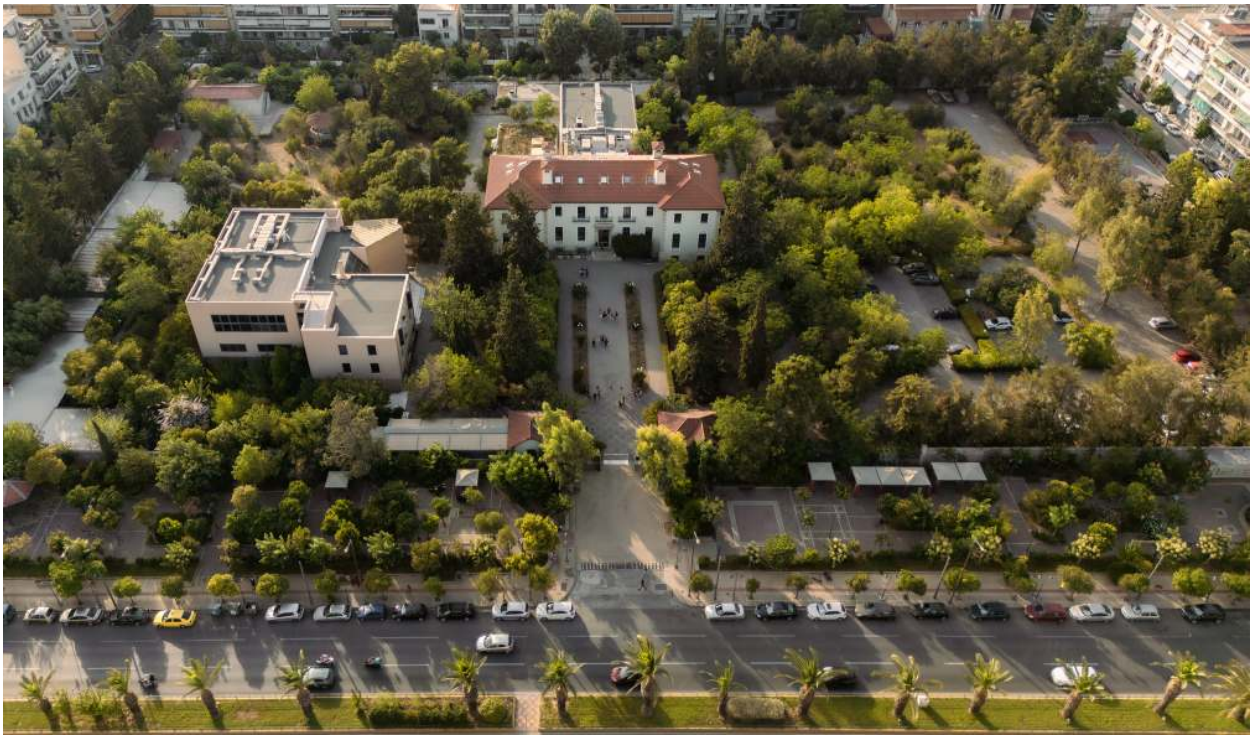

Figure 2. Panoramic View of the Main Building and Courtyard of Harokopio University.

Conceived and developed according to international standards, the institution originated from a study conducted by the Ministry of National Education and Religious Affairs, under whose auspices it operates.

Harokopio University is committed to delivering high-level undergraduate and postgraduate studies, aligning with Panagis Harokopou's vision to enhance the quality of life. The university's study programs cover various areas of human activity, emphasizing modern infrastructure, conducive educational environments, and fostering strong student-faculty collaborations.

A focal point of the university is its dedication to research activity and the pursuit of excellence. According to studies by the National Documentation Center, Harokopio University consistently ranks among the top five

institutions in the country for the number of publications and recognition, as evidenced by cross-citations at the researcher level in its cultivated fields of knowledge.

The university comprises the following Faculties and Departments:

School of Environmental Geography and Applied Economics

- Department of Economy and Sustainable Development
- Department of Geography

School of Health Sciences and Education

- Department of Dietetics - Nutrition Science

School of Digital Technology

- Department of Informatics and Telematics

All departments offer comprehensive four-year degree programs.

Situated on a sprawling 20-acre complex at El. Venizelou 70 in Kallithea, very close to the center of Athens, Harokopio University occupies a privately owned space bequeathed by the testators. Easily accessible by public transport and in proximity to the METRO station "El. Venizelos – Taurus," the university's location provides convenience for its diverse student body. The university remains steadfast in its commitment to academic excellence, research innovation, and the realization of Panagi Harokopou's enduring vision for an institution that contributes significantly to societal progress.

Figure 3. Harokopio University in the Time of Panagis Harokopos.

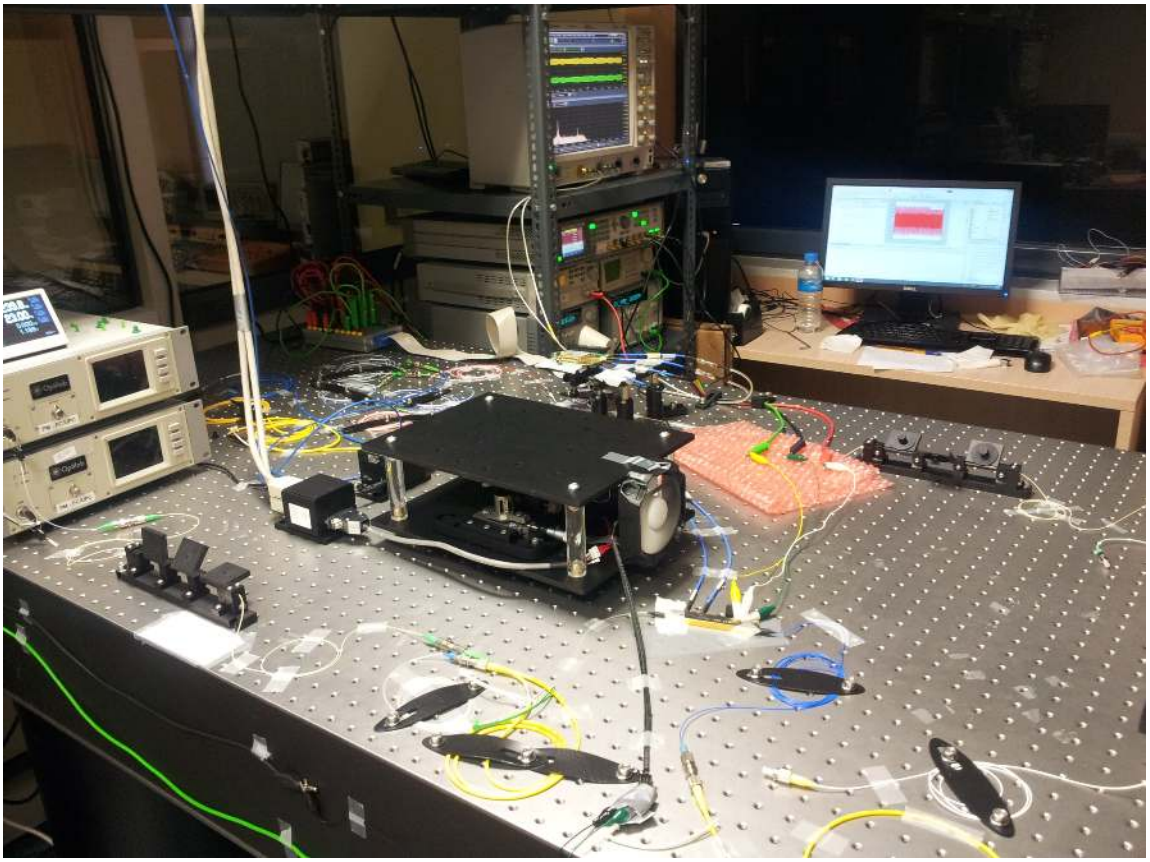

Figure 4. Optical Table in the Optical Communications Laboratory.

Research at the University

The University is committed to fostering fundamental and applied research that contributes significantly to the progress of science, along with the provision of scientific, research, and technological services. Our University actively supports the initiation and execution of scientific, research, and technological projects, whether funded by or conducted within the framework of international organizations and agencies.

Facilitated through the Special Research Funds Committee, which accumulates funding from various sources, the University allocates resources for research-related needs such as training, development, ongoing training projects, scientific and technological services. This encompasses the execution of projects like special studies, tests, measurements, laboratory examinations, analyses and provision of opinions. All these services are conducted by our faculty or in collaboration with other specialized scientists, emphasizing the seamless integration of education and research with production.

Transparency is a hallmark of our research endeavors, ensuring that the results are made public and accessible to the academic community. They are encouraged to utilize these outcomes while adhering to the rules and provisions of Greece, and International Laws governing the protection of intellectual property.

To date, the Special Research Funds Committee has overseen more than one hundred and seventy programs, with a substantial portion successfully completed in terms of both physical and financial scope, while others are currently in the research phase. In line with our commitment to advancing research, the institution actively participated in and managed programs under the EU Research Frameworks, as well as those directly funded by the European Union.

In alignment with community and national legislation requirements for managing co-financed projects funded by the EU and national schemes, has been certified. This certification extends to the implementation and management of projects affirming the University's logistical and scientific competence to drive and elevate research initiatives. Our dedication to research excellence remains unwavering as we continue to contribute to the academic and scientific landscape.

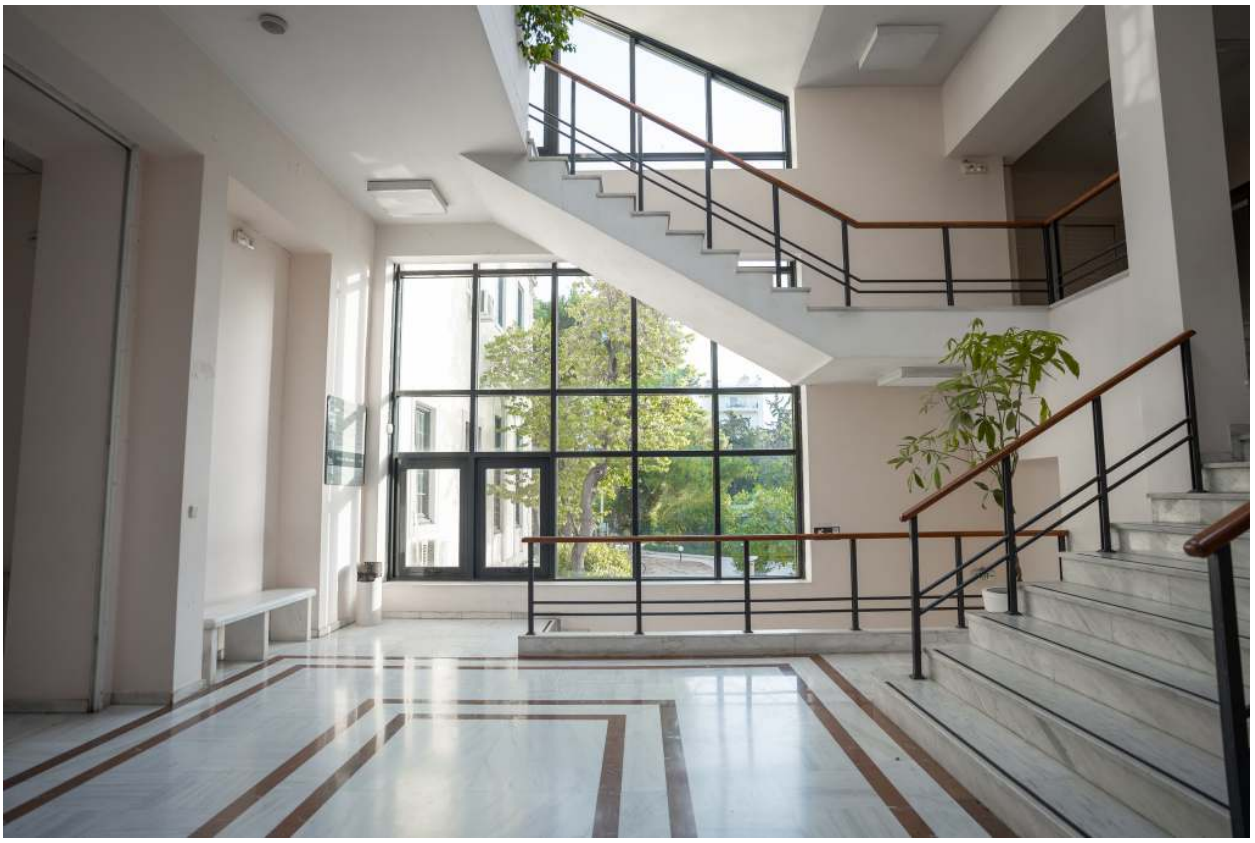

Figure 5. Interior Space of the Main Building.

The Department

Figure 6. Graduation Ceremony in the Main Auditorium.

Establishment - Operation

Established in 2006, our Department is dedicated to advancing Computer Science, with a primary focus on web/telematic applications, big data, machine learning, and web-centric technologies. We place special emphasis on application areas such as artificial intelligence, data science, internet technologies, digital transformation, e-business, e-government, e-health, smart transportation, and more.

Recognizing the evolving needs of the global market, the Department aims to equip its graduates with comprehensive training in web technologies, cloud computing and the Internet of Things, Data Science and Information Systems.. This enables them to contribute effectively to the design and development of intricate information systems and advanced services. Graduates from our Department possess a well-rounded set of scientific and technical skills directly applicable to the diverse fields within Computer Science, making them well-prepared to address the contemporary demands of the Greek and international market.

As part of our commitment to innovation, we encourage students to explore and develop cutting-edge services using open source platforms. This is often facilitated through their thesis work under Research and Development (R&D) projects, allowing them to actively contribute to the University's e-services ecosystem.

The professional rights of our graduates align with those of all University Departments across the country specializing in Informatics and Telecommunications. By ensuring that our curriculum remains updated and

relevant, we empower our students to become adaptable professionals to meet the needs of the wider landscape of technology and information science.

Figure 7. Exterior View of the Department of Informatics and Telematics.

Purpose - Objectives

The Department is dedicated to exploring the application, utilization, and impact of digital technology across various spheres of human activity. To achieve this, we focus on the design, development, and integration of standard methods and tools within computer and telecommunications technology, enabling the creation of contemporary cloud and IoT applications. The main activity areas within the Department's activities encompass:

- **Provision of Digital Services**: Creating unrestricted services, adaptable to diverse mobility and interface devices (e.g., e- and m-services) across sectors such as health, transportation, governance, and commerce.
- **Data and knowledge Management and Exploitation**: Handling the vast amounts of information generated and disseminated in modern environments (e.g., the Internet) and transforming it into knowledge by leveraging the connections within different networks (e.g., computer, corporate, human).

- **System Development and Integration**: Advancing technologies, including new-generation wireless systems, cloud computing services, and the integration of smart devices (e.g., sensors, smartphones) to enhance service efficiency and simplify the daily lives of modern individuals. Examples include applications like the Internet of Things and smart cities.
- **Integrated Support for Established Digital Technology Areas**: Collaborating with other Departments of our University, we provide integrated support for established application areas of digital technology, such as corporate IT, health IT, and educational IT.
- **Impact Assessment of Digital Technology**: Investigating the influence of digital technology on daily life and business activities, with a focus on techno-economic and social analyses related to the adoption of technologies and products.

The Department fosters research and excellence in these domains to facilitate integrated technological solutions and their effective implementation in modern society. To achieve this, a comprehensive strategic plan for medium and long-term research has been formulated, prioritizing application areas aligned with our expertise.

Furthermore, our commitment extends to delivering high-level curricula at both undergraduate and postgraduate levels, adhering to international standards and guidelines. By imparting specialized knowledge, we aim to empower our graduates to excel in the dynamic and rapidly evolving fields of digital technology.

Figure 8. Panoramic View of the Department of Informatics and Telematics.

Research

The Department stands as a distinguished research unit both nationally and internationally, actively engaged in research spanning various cutting-edge domains associated with Information Technology (IT) and its applications. Our research endeavors target the following disciplines :

Our commitment to these research areas positions us at the forefront of innovation, contributing valuable insights to the evolving landscape of IT. The Department's continuous dedication to cutting-edge research not only enriches academic discourse but also informs practical applications that can shape the future of Information Technology.

Graduates

The graduates of the Department, equipped with comprehensive scientific knowledge in the fields of Informatics with an emphasis on telematics applications, possess the necessary skills to meet the high demands of modern society and the competitive environment.

Graduates of the program can work in various specialties, including:

- Machine Learning Engineer
- Data Scientist
- Software Architect
- Software Engineer
- Cybersecurity Engineer
- Information Security Engineer
- Big Data Engineer
- Cloud Architect
- Computer Systems Analyst
- Full-Stack Developer
- Web Developer
- DevOps Engineer
- Mobile Application

Figure 9. Exterior View of the Department of Informatics and Telematics.

Figure 10. Graduation Ceremony in the Main Auditorium.

Miscellaneous Activities

The department initiatives that have been successfully completed and ongoing activities are tentatively summarized below:

Figure 11. Meeting within the framework of a European Research Project at the Department of Informatics and Telematics.

Elevating Research Collaboration Initiatives

- **Active Participation in Diverse Research Initiatives:**

  Engaging in a spectrum of research and development projects, our involvement spans projects funded by national and European resources, as well as private entities. This commitment reflects our dedication to contributing innovative solutions and advancing knowledge on a broad scale.

  Interdepartmental Collaboration for Robust Research Ecosystem: Fostering collaboration with key university departments, such as the Department of Geography and the Department of Dietetics and Nutrition Science, extends beyond theoretical collaboration. Together, we jointly conceive and execute research projects, creating a synergistic environment that amplifies the impact of our collective efforts.

Global Networking through Cooperation Protocols: Actively forging cooperation protocols with esteemed Research Organizations and Universities across Europe and internationally, we aim to create a network that transcends geographical boundaries. These strategic collaborations facilitate the exchange of intellectual capital and resources, enriching the global research landscape.

Empowering Future Leaders with Scholarships: In our commitment to nurturing the next generation of researchers, we have established scholarships for both students and PhD candidates. These scholarships not only financially support their academic pursuits but also cultivate a culture of excellence and innovation within our academic community.

Facilitating International Mobility Programs: Systematically institutionalizing and organizing student and researcher mobility, we leverage prestigious programs like Erasmus and Erasmus+. Capitalizing on our existing partnerships and proactively entering into new ones, these initiatives enable a seamless exchange of ideas and talent, fostering a diverse and enriching academic experience for all involved.

In embracing these collaborative initiatives, we aspire to elevate the standards of research, foster interdisciplinary cooperation, and cultivate a dynamic academic environment that propels our institution to the forefront of global innovation.

Figure 12. Conference in the Main Auditorium.

Organization of conferences

- 20th Hellenic Data Management Symposium (HDMS 2026)
- Interdisciplinary IAU Symposium on AI in Astrophysics (UniversAI 2025)
- Discrete Distributions in memory of Adrienne Freda Kemp (April 2024)
- IEEE CISOSE 2023: IEEE International Congress on Intelligent and Service-Oriented Systems Engineering
- International Electronic Government and Transformation Conference 2021
- 25th International Database Engineering and Applications Symposium (IDEAS 2019)
- 14th International Conference on Open Source Systems (OSS 2018)
- 11th International Conference on Random Generation of Combinatorial Structures (GASCom 2018)
- Free and Open Source Software Communities Meeting (FOSSCOMM) 2012 και 2017
- 13th International Conference on Economics of Grids, Cloud, Systems and Services (GECON 2016)
- IEEE Research Challenges in Information Science το Μάιο του 2015 (RCIS 2015)

Figure 13. Conference in the Main Auditorium.

Relations with the market and society

- Integration of the institution of practical training.
- Join the Free Software / Software SocietyOpen Code (EEL/LAK).

- Undertaking projects for the implementation of training and education activities in collaboration with other Universities (University of Athens, Aristotle University of Thessaloniki, University of Peloponnese) and non-profit organizations (EEL/LAK).

Successful organization in collaboration with the students' association of the Department of the annual Open Software Communities conference (FOSSCOMM) in April 2013 and November 2017, with over 600 participants to each.

- Distinctions of students, undergraduates and postgraduates, in technology and entrepreneurship competitions at national andEuropean level.
- Strengthening the position of the Department in the labor market by organizing established business conferences (ICT Forum) and days / seminars in the field of Information Technology and Telecommunications.

Study programs

- Ensuring the delivery of top-tier education is a foremost commitment of the Department, encompassing both undergraduate and postgraduate levels. This commitment involves an integration of scientific principles and theories with a keen awareness of market and societal needs.
- Our meticulously crafted curricula adhere to the esteemed standards set forth by international bodies such as the Association for Computing Machinery (ACM) and the Institute for Electrical and Electronic Engineers (IEEE). These curricula aim to foster daily engagement within the Department's Laboratories, encouraging students to be a consistent presence within the academic community. Additionally, a strong emphasis is placed on fostering connections with the labor market, providing internship support for students who opt for this valuable experience.
- Since its inception, the Department has championed the European Credit Transfer and Accumulation System (ECTS) for its study programs. This commitment is evident in the determination of ECTS credits and the issuance of diploma supplements in both Greek and English.
- Our educational approach leverages modern pedagogical techniques, including the integration of theory with hands-on laboratory exercises, collaborative group work, and the analysis of real-world case studies. Through this multifaceted approach, we strive to equip our students with not only theoretical knowledge but also practical skills, ensuring their preparedness for the dynamic challenges of their chosen fields.

Figure 14. Keynote Speech in the Auditorium.

Scholarships / Awards

The State Scholarship Foundation annually bestows performance scholarships, grants, and loans upon students who have demonstrated excellence in entrance and semester exams at the A.E.I. The Department's Secretariat releases an announcement listing scholarship and award recipients, accompanied by a reasonable deadline for students to submit supporting documents. These scholarships aim to spotlight exceptional cases of effort, moral character, and academic performance, providing financial support to students who excel amid challenging circumstances.

Harokopio University hosts the "Spyros Harokopou and Evan Petroutsi" Foundation, which awards postgraduate study scholarships based on academic performance, family and social context, and individual or family income. Each academic year, the Foundation discloses the number and duration of scholarships, along with the application process details, in October. This initiative seeks to assist graduates of Harokopio University in pursuing further studies.

To honor the late Professor Georgios Karabatzos, the Department of Informatics and Telematics instituted the "G. Karambatzos" financial Performance Scholarship. Awarded to three students per Master's Program direction, this scholarship fully refunds tuition fees for the top-performing first-grader in each direction and partially for the second and third-performers (totaling 9 scholarships). Payments are disbursed at the end of each semester based on students' academic performance.

Additional funding sources for awards and scholarships may include donations, sponsorships, University endowments, and proceeds from cultural and sporting events organized by the Foundation. The Liaison Office provides information regarding these awards and scholarships.

Figure 15. Competition within the framework of GFOSS.

Personnel

Faculty

Malvina Vamvakari

Malvina Vamvakari is a Professor in the area of Probability-Combinatorics-Statistics and Applications at the Department of Informatics and Telematics of Harokopio University. She graduated from the Department of Mathematics of the National Kapodistrian University of Athens in 1991 and was awarded a PhD degree by the same Department in 1997. She had been a postdoctoral fellow at the Computer Engineering Department of the University of Patras and a researcher at the Institute of Computer Technology of Patras. Her research interests include asymptotic combinatorial enumeration, discrete probability distributions, stochastic analysis, random graphs, and statistical data analysis.

Mara Nikolaidou

Mara Nikolaidou is a Professor in the Department of Informatics and Telematics at Harokopio University of Athens, since 2007. Prior her appointment she worked as a computer engineer in the private sector and as IT consultant for the government.She served as the Rector of the University for two terms (2016-2024). She was elected in the Board of the Rector's Council of Greek Universities for 2019-2020 and served as the President during the first trimester of her term. She was also appointed as the representative of Greek Universities in the European University Association (EUA) for 2023-2024 and in the steering committee of Pharos Initiative for the collaboration between US and Greek Universities (2019 – 2024). Her research focuses on distributed systems and complex system design. Over the last years she actively participated in numerous research projects funded by national, European and international agencies on system engineering, the Internet of Things, Cloud and Edge computing, Cyber-physical Systems and Smart Cities, emphasizing human-in-the-loop and autonomous systems. Recently, she explores responsible computing and ethical requirements in system design, focusing on the integration of AI components. She has published more than 200 papers in international journals and conferences, while actively participates in the organization of international conferences in the area of software and systems engineering. She is a member of IEEE (SMC society) and Systems Council. She also participates in OMG, in the working groups for SysML and responsible computing.https://mara.dit.people.hua.gr

Eleni Sardianou

Dr. Eleni Sardianou is a Professor of Applied Environmental Economics in the Department of Economics and Sustainable Development, School of Environment, Geography and Applied Economics, at Harokopio University (HUA). She teaches environmental economics, energy economics, statistics, and econometrics. She is a member of the Laboratory of Applied Economics and Sustainable Development. Her research interests include consumer behavior and energy economics, corporate sustainability performance, quantitative analysis of environmental policy, and environmental economics with an emphasis on sustainability. Her research work has been published in more than 60 articles in peer-reviewed scientific journals and has been cited in over 2,200 articles. Since November

2024, she has been serving as an Associate Editor of the scientific journal SN Business & Economics by Springer Nature. Her research is ranked in the top 2% in the field of environmental economics, according to the list "Data for updated science-wide author databases of standardized citation indicators," compiled by Elsevier BV and Stanford University in the United States for the period 2021–2024.

Kostantinos Ampeliotis

Konstadinos Abeliotis holds a Ph.D. from New Jersey Institute of Technology, U.S.A. (1995) in Chemical Engineering and a Diploma in the same field from the University of Patras, Greece (1990). He is currently serving as a Professor at Harokopio University, School of Environment, Geography and Applied Economics. His fields of research interest include life cycle assessment of products and processes; the environmental impact of households; WEEE, food, and food waste environmental impacts. He has been a member or a leading researcher in more than 10 funded research projects. He has published more than 50 research articles in SCOPUS peer- reviewed journals

Dimosthenis Anagnostopoulos

Dimosthenis Anagnostopoulos is a Professor in the Department of Informatics and Telematics of Harokopio University in the field of Information Systems and Simulation. He was Rector of Harokopio University for a four-year term (9/2011 to 1/2016) and Dean of the School of Digital Technology. He has been Elected President of the Committee of Rectors of Greek Universities (1/2014 to 6/2014). He is Visiting Professor at the Universities of Sussex, UK and Manchester, UK. He is a Graduate and Doctor of the Department of Informatics and Telecommunications of the University of Athens. He was the EU National Representative for ICT in Horizon 2020 (2014 to 2015). He was General Secretary of Information Systems of the Ministry of Economy and Finance (2004 to 2009). Between 2019 and 2023, he served as General Secretary of Public Administration Information Systems of the Ministry of Digital Governance, contributing to the rapid development of the digital transformation of our country in recent years. From August 2019, he serves as the General Secretary of Information Systems at the Ministry of Digital Governance.

Iraklis Varlamis

Iraklis Varlamis is a Professor at the Department of Informatics and Telematics of HUA in the area of Data Management. He holds a Ph.D. from Athens University of Economics and Business, Greece, and an MSc in Information Systems Engineering from UMIST, UK. His research interests range from data mining and social network analytics to recommender systems for social media and real-world applications. He has more than 280 articles published in international journals and conferences, and more than 7500 citations to his work. He holds a patent from the USPTO and one from the Greek Patent Office for systems that analyze news articles and web documents. He is an IEEE member and a member of the ELLIS society. He is the scientific coordinator for HUA in several EU (H2020, ECSEL, REC) projects and has a leading role in national projects in collaboration with researchers from other HUA departments and other universities. He has been listed among the top 2% of most cited scientists globally in the field of AI, according to Stanford's list for 2023 and 2024.

Georgios Dimitrakopoulos

Georgios Dimitrakopoulos is an Associate Professor at the Department of Informatics and Telematics of the School of Digital Technology of Harokopio University since 2010. He holds a degree in Electrical and Computer Engineering from the National Technical University of Athens (2002) and a PhD from the University of Piraeus (2007). He actively participates, for more than 20 years, in research and development programs in the field of electronic communications and IT, funded mainly by the European Union (Horizon 2020, ECSEL, KDT, Horizon Europe). In the past he has worked as a General Manager in a construction company and as a researcher-engineer in the field of Information and Communication Technologies (ICT). In addition, he has developed activity in start-ups, in Greece and the USA. His research interests focus on the design and development of communication network optimization algorithms, with an emphasis on cognitive networks, intelligent transportation systems, and automated driving. He is the author of three books and more than 200 scientific articles in international scientific journals and conferences. He is among the top 2% of scientists worldwide, according to the annual rankings of Stanford University.

Thomas Kamalakis

Thomas Kamalakis was born in Athens in 1975. He obtained his BSc in Informatics and MSc in Telecommunication with distinction, from the University of Athens in 1997 and 1999 respectively. In 2004 he completed his PhD thesis in the design and modelling of Arrayed Waveguide Grating devices. He was a research associate for the Optical Communications Laboratory of the University of Athens from 2004 to 2007 and an adjunct lecturer in Electronics for the University of Peloponnese at the same period. In 2008 he joined the Department of Informatics and Telematics at Harokopio University of Athens where he is currently a full professor and Dean of the School of Digital Technology. He has over 100 publications in peer reviewed journal and international conferences. His research interests include integrated optics, nanophotonics, optical detection, free space optics and system tecnhoeconomics.

Panagiotis Kourouthanasis

Panos E. Kourouthanassis is a Professor in the Department of Informatics at the Ionian University since 2010. He holds a PhD in Information Systems (2006), an MSc in Decision Sciences with specialization in e-Business, and a BSc in Informatics from the Athens University of Economics and Business. His research interests focus on pervasive information systems, electronic business, mobile services, and technology adoption. He has participated in more than 20 research projects as a principal researcher or project manager, collaborating with organizations such as the European Commission and national institutions. His work has been published in leading international journals and conferences, including Journal of Information Technology and IEEE Pervasive Computing, and has received several hundred citations. He has served on program committees of international conferences and editorial boards of academic journals, and has supervised numerous MSc and PhD theses.

Dimitrios Michail

Dimitrios Michail is a Professor at the Department of Informatics and Telematics at the Harokopio University of Athens. He holds a Diploma in Electronics and Computer Engineering from the Technical University of Crete, and an MSc (Computer Science) and PhD (Algorithms) from the Max-Planck Institute for Informatics, all with distinction. He has also conducted post-doctoral research at the Max-Planck Institute for Informatics in Germany as well as at the INRIA research institute in Sophia-Antipolis, France. His main research focuses on graph algorithms, graph mining, and graph representation learning. His expertise extends to machine learning techniques with an emphasis on computer vision and remote sensing. He has published numerous articles in top-rank international journals and conferences and has participated as a researcher in a number of R&D projects at European and national level.

Christos Michalakelis

Christos Michalakelis, PhD is a Professor at the Department of Informatics and Telematics of Harokopio University, with a field of expertise in the area of Technology Management. He holds a degree from the Department of Mathematics, National and Kapodistrian University of Athens (1983), a master's degree, with honors, in Software Engineering, from the University of Liverpool, Department of Computer Science, U.K. (1995), a master's degree in Management and Economics of Telecommunications Networks, from the National and Kapodistrian University of Athens (2008) and a PhD, with honors, in Techno-economic Analysis of Telecommunications Networks - Forecasting Penetration and Competition of Telecommunications Services, from the National and Kapodistrian University of Athens, Department of Informatics and Telecommunications (2009).He is a member of the Board of Directors, the Board of Lifelong Learning of Harokopio University and Director of the Postgraduate Program "Applied Informatics" (https://applied.dit.hua.gr/), a conversion program for redirecting studies in informatics for scientists who do not have a relevant cognitive background. He has participated in many research and development projects and has published numerous scientific papers in international journals and conferences. He has worked at the Ministry of Education as head of the informatics department. He is President of the Board of Directors of “Study in Greece” (http://www.studyingreece.edu.gr/), having the role of the national body of Greece, for supporting the internationalization of Greek Universities, in which all Greek Universities participate, with the aim of establishing Greece as an international hub for education and research.

Christos Chalkias

Christos Chalkias is a Professor of Applied Geography and Geographic Information Systems (GIS) at the Department of Geography, Harokopio University. He received his B.Sc. in Geology (1991) and his Ph.D. in Geoinformatics in Earth Science (1996) from the National and Kapodistrian University of Athens. His research focuses on GIS and spatial analysis, applied geography, spatial pattern analysis, health geography, modeling of natural processes, and digital/web cartography. He has authored numerous publications in high-impact international journals, particularly in the areas of geospatial analysis, environmental modeling, and public health geography. He has participated in more than 40 research projects since 1995, including European and national initiatives related to geoinformatics, environmental monitoring, and spatial data infrastructures, and has coordinated several funded research programs involving geospatial applications and digital cartographic systems.

Kleopatra Bardaki

Cleopatra Bardaki is an Associate Professor of Pervasive Information Systems and Supply Chain Systems at Dep. of Informatics and Telematics of Harokopio University of Athens (HUA). She also serves as the Scientific Coordinator of the Center of Responsible and Sustainable Innovation and Entrepreneurship "Science4Life" at HUA.She holds a PhD in Information Systems (IS) enabled by Internet-of-Thing (IoT) in the Supply Chain from Athens University of Economics and Business (AUEB), an MSc in IS from AUEB and a BSc (with honors) in Informatics and Telecommunications from University of Athens. Her research interests include Analysis, Design & Evaluation of Information Systems, IoT-enabled Digital Transformation, Supply Chain Management, Data analytics for Decision Making, Information Quality of IS; and Business Process Management and Transformation. Dr Bardaki has published over sixty papers in peer-reviewed academic journals, proceedings of international academic conferences and edited books.

Mavreta Stamati

Teta Stamati obtained her BSc in Informatics and Telecommunications from the National and Kapodistrian University of Athens (EKPA), Greece, her MPhil in Technology Management from the Department of Computation at UMIST, UK, her MBA from the Management School of Lancaster University, UK, and her PhD in Information Systems and Digital Transformation from the Department of Informatics and Telecommunications, EKPA, Greece.She is an Associate Professor of Management Information Systems and e-Government at the Department of Informatics and Telematics, Harokopio University (HUA), Athens, Greece. She has published over 80 articles in peer-reviewed journals and conferences. Her research focuses on Technology Management and Information Systems and specifically on digital transformation, information systems alignment with operations, adoption of disruptive technologies, and the resilience and sustainability of business systems application landscapes. She has taught extensively at undergraduate and postgraduate levels within the Information Systems field and has served as coordinator of major development projects and research programs.

Christos Diou

Christos Diou is an Associate Professor of Artificial Intelligence and Machine Learning at the Department of Informatics and Telematics, Harokopio University of Athens. He is also an affiliated researcher of the Archimedes AI unit and an ELLIS member. He holds a Ph.D. and a Diploma in Electrical and Computer Engineering from the Aristotle University of Thessaloniki. His main research interests include methods for learning robust representations that are capable of out-of-distribution generalization, methods for fair and interpretable machine learning, as well as the use of machine learning for the estimation of causal effects from observational data. He has published several papers in international scientific journals and conferences including venues such as TPAMI, ICLR, CVPR, ICCV, AISTATS and ECAI and has 20 years of experience participating in and leading European and national research projects, focusing on applications of artificial intelligence in healthcare.

Georgios Kousiouris

George Kousiouris is an Associate Professor at the Department of Informatics and Telematics of the Harokopio University of Athens. He received his Dipl. Eng. in Electrical and Computer Engineering from the University of Patras, Greece in 2005 and his Ph.D. in Cloud Computing at the Telecommunications Laboratory of the Dept. of Electrical and Computer Engineering of the National Technical University of Athens in 2012. He has participated in numerous EU funded projects such as H2020 PHYSICS, H2020 BigDataStack, H2020 CloudPerfect (as lead architect and technical coordinator), H2020 SLALOM, FP7 COSMOS (as lead architect and technical coordinator), FP7 ARTIST (as WP leader), FP7 OPTIMIS (as WP leader), FP7 IRMOS and national projects. He has published over 80 publications on topics including Cloud platforms and architectures, Cloud services evaluation and benchmarking, Cloud applications design, Service Level Agreements, IoT platforms, Performance engineering and estimation.

Panagiotis Rizomyliotis

Panagiotis Rizomiliotis received the B.Sc. degree in Informatics and Telecommunications in 1997, the M.Sc. degree in Electronics and Radio Engineering in 1999, and the Ph.D. degree in Cryptography in 2005, all from the National and Kapodistrian University of Athens. From 2005 to 2007, he was a Postdoctoral Researcher with KU Leuven, Department of Electrical Engineering (ESAT), and the COSIC Research Group. From 2007 to 2011, he served as a Visiting Lecturer with the University of the Aegean, Department of Information and Communication Systems Engineering, while from 2009 to 2012 he was also a Visiting Lecturer (Presidential Decree 407/80) with the Harokopio University of Athens, Department of Informatics and Telematics. From 2012 to 2018, he was an Assistant Professor with the University of the Aegean and concurrently served as an Adjunct Professor with the Harokopio University of Athens. From 2018 to 2023, he was an Assistant Professor with the Harokopio University of Athens, where he has been an Associate Professor since 2023. He has also been serving as an Adjunct Professor with the University of Piraeus since 2012 and with the University of West Attica since 2019, and as an Adjunct Professor with the International Hellenic University during 2015–2016. From 2009 to 2011, he served as a Special Advisor to the Ministry of Administrative Reform and e-Governance. From 2012 to 2019, he was a Member of the Plenary of the Hellenic Authority for Communication Security and Privacy (ADAE). Since 2019, he has been an External Expert Collaborator with the European Union Agency for Cybersecurity (ENISA). His research interests include cryptography, cybersecurity, privacy, and the security of information and communication systems.

Georgia Dede

Dr. Georgia Dede is Assistant Professor at the Department of Informatics and Telemetics of Harokopio University of Athens in the field of Evaluation of System and Services. She is also Expert Evaluator in European Commission and Research and Innovation Project Manager at Netcompany. She has a great experience in research and development EU and national projects. She is a graduate of the Department of Informatics and Telecommunications of the University of Athens. In 2007 she received a postgraduate diploma in the administration and economics of telecommunication networks of the postgraduate study program of the same department. In 2015 she received her doctoral diploma in decision making methods and in the uncertainty study for the development of a road map implemented in next generation home networks (supervisor Professor Thomas Sfikopoulos of the University of Athens). Between 2004 and 2010 she was a research associate in the Visual Communications Laboratory of the University of Athens, and since 2007 she has been working as a research associate at the Department of Informatics

and Telematics of the Harokopio University and as an adjunct lecturer in undergraduate and postgraduate studies. Between 2012 and 2015 she had also a research fellowship in the University o Patras. She has been a scientific associate and project manager in various European and national research projects. Her research interests include evaluation and validation of electronic systems and services, decision making and operational research, roadmapping and techno-economic analysis, risk assessment, analysis of cybersecurity aspects, requirement analysis with application to IT, IoT applications and services as well as telecommunication, wireless optical communications. She has published papers in scientific journals, books and conferences, and is also a reviewer in scientific journals.

Eirini Liotou

Eirini Liotou is an Assistant Professor at the Department of Informatics and Telematics of Harokopio University of Athens since 2024. She holds a PhD degree from the Department of Informatics and Telecommunications at the National and Kapodistrian University of Athens. She obtained the MSc in Informatics and Telecommunications from the same university, the MSc in Communications and Signal Processing from the Imperial College of London, and the Diploma in Electrical and Computer Engineering from the National Technical University of Athens. She has worked as a Senior Software Engineer at Siemens Enterprise Communications in the R&D department. She has also worked as a Post-Doc researcher in the Department of Informatics and Telecommunications at the National and Kapodistrian University of Athens, and as a Scientific Project Manager for EU Research Projects at the Institute of Communications and Computer Systems (ICCS). She has authored more than 50 peer-reviewed publications, and she has participated in numerous research and development programs. She also serves as a Reviewer for EU projects (as an EC expert). Her main research interests revolve around 6G mobile networks, with a particular focus on Software-Defined Networking (SDN), Network Functions Virtualization (NFV), AI in networking and network emulation, as well as Software-Defined Vehicle (SDV) and V2X communications.

Alexandros Dimopoulos

Alexandros Dimopoulos is an Assistant Professor at the Department of Informatics and Telematics of Harokopio University of Athens with the academic field of “Logic Design and Reliable Embedded Systems”. He graduated from the School of Electrical and Computer Engineering of the National Technical University of Athens (NTUA) in 2004 and completed his PhD at the same institution in 2009, specializing in intelligent embedded systems. From 2020 to 2025, he served as a Lecturer at the Hellenic Naval Academy, while since 2012, he has been collaborating with the Biomedical Sciences Research Center "Alexander Fleming" in the field of Bioinformatics.He has taught at several higher education institutions, possessing extensive experience in both undergraduate and postgraduate teaching. At Harokopio University in particular, he has 10 years of teaching experience at the undergraduate level and 12 years at the postgraduate level, during which he has restructured and organized a number of courses from scratch. He has published 24 research papers in peer-reviewed international scientific journals and presented over 30 announcements at international conferences. Additionally, he has participated in national and European research projects and serves as the Technical Coordinator of the Greek national node of ELIXIR-GR. His research focuses on the design and development of reliable embedded systems, parallel architectures, artificial intelligence applications, as well as the utilization of FPGAs for biomedical and bioinformatics applications.

Vasileios Efthymiou

Vasilis Efthymiou is an Assistant Professor at the Department of Informatics and Telematics, Harokopio University of Athens. He received his Ph.D. degree in 2017 from the Computer Science Department, University of Crete, for his research on entity resolution in the Web of Data.Prior to his current appointment, he was a Postdoctoral Researcher at IBM Research – Almaden and at FORTH-ICS, where his work focused on data management and AI for natural language interfaces to data. He also served as a research intern at the IBM T.J. Watson Research Center (NY, USA), specializing in matching Web tables to Knowledge Graphs. He has co-authored two books, more than 60 peer-reviewed articles, and co-invented 4 US patents.Since 2025, he has been serving as the Coordinator of the W3C Greek Office. His professional service includes co-organizing the SemTab challenge at ISWC and the TaDA workshop at VLDB. He is currently the General Co-chair of HDMS 2026, the Web Chair of EDBT/ICDT 2026, and the Local Arrangements Chair of VLDB 2027.

Athanasios Kiourtis

Athanasios Kiourtis is an Assistant Professor at the Department of Informatics and Telematics of the Harokopio University of Athens, with a research focus on “System Programming Techniques on the World Wide Web”. He is a graduate of the Department of Digital Systems of the University of Piraeus, from which he received his Bachelor’s Degree in 2013, his Master’s Degree in Network-Centric Systems in 2015 and his PhD in 2019, with a research specialization in data interoperability in heterogeneous web infrastructures and applications. He has participated in European and national research projects (e.g., HEU XR5.0, HEU FAME, HEU SmartCHANGE, H2020 PolicyCLOUD, H2020 InteropEHRate), in positions of researcher and technical coordinator, and has a rich published research work, with many publications in distinguished international scientific journals and proceedings of international conferences. His research interests focus on World Wide Web technologies, web systems programming, services and data interoperability, data exchange protocols and big data management and analysis. He has significant academic and teaching experience, having served as a Postdoctoral Researcher at the University of Piraeus and an Academic Associate at university institutions, such as the University of West Attica, the National and Kapodistrian University of Athens, and the National Technical University of Athens.

Anargyros Tsadimas

Anargyros Tsadimas is an Assistant Professor at the Department of Informatics and Computer Engineering of the University of West Attica. He holds a BSc in Applied Informatics from the University of Macedonia and an MSc in Advanced Information Systems from the Department of Informatics and Telecommunications of the National and Kapodistrian University of Athens. He received his PhD from the Department of Informatics and Telematics at Harokopio University of Athens; his doctoral thesis was titled "Model-Based Enterprise Information System Design: A SysML-based approach". His research interests include Systems Modeling & Simulation, Distributed Systems, and Information Systems Design. He has published numerous papers in peer-reviewed international journals and conferences. Furthermore, he actively participates as a researcher in various R&D projects funded by the European Union and the Greek State. In addition to his academic work, he possesses extensive professional experience as a Software and DevOps Engineer, having acquired significant expertise in software development and large-scale infrastructure management.

Angelos Charalampidis

Angelos Charalambidis is an Assistant Professor at the Department of Informatics and Telematics, Harokopeion University of Athens. His research interests lie in programming languages - with a focus on declarative languages and their semantics - as well as knowledge representation and reasoning. He has participated in numerous European and national research projects.He holds a PhD in Informatics from the National and Kapodistrian University of Athens (2014). Prior to joining Harokopeion University, he was a Visiting Assistant Professor at Thomas Jefferson University, USA (2020--2021), and a Postdoctoral Researcher at the Institute of Informatics and Telecommunications, NCSR ``Demokritos'' (2014--2019).

Athanasios Anastasiou

Athanasios Anastasiou received his Bachelor degree in Electrical & Electronic Engineering from the University of Newcastle Upon Tyne, in 2005. In 2006, he received his M.Sc. degree in Digital Signal & Image Processing from the University of Central Lancashire. Likewise, in 2009 he obtained his second M.Sc. degree in Biomedical Engineering held by the University of Patras and the National Technical University of Athens (N.T.U.A.). In 2015 received his Ph.D from the National Technical University of Athens (N.T.U.A.). Since 2011, is member of NTUA's Biomedical Engineering Laboratory. Since 2024, is a post-doctoral researcher in Harokopio University of Athens with the subject of AI-Enabled Tools and Methodologies for Hospital Transformation. His current research interests comprise bioinformatics, biosignal and image processing, decision support systems, children obesity and technologies for assisted living. He also has experience in integrating wireless technologies in health applications, such as Electronic Health Record Management tools and physical activity recognition using wireless sensors and mobile devices. Last but not least, he has long experience in designing, managing and implementing IT Solutions and Projects, as well as, in developing software products using a number of frameworks, technologies and tools.

Ioannis Violos

John Violos served as a member of the European Commission's Digital Single Market working group on the code of conduct for switching and porting data between cloud service providers.He has held research positions at École de Technologie Supérieure (ETS), Université du Québec, Canada; the Information Technologies Institute, Centre for Research and Technology Hellas (CERTH); and the Institute of Communication and Computer Systems (ICCS), Greece. He has participated in more than 18 internationally funded research projects (EU, Canada, and South Korea), serving as Work Package Leader and Task Leader.He has also served as an adjunct professor at the National and Kapodistrian University of Athens and Harokopio University of Athens, teaching more than 12 courses. He has authored over 80 publications in journals and conferences and has served as guest editor and reviewer for more than 30 international journals, as well as a program committee member and reviewer for over 30 international conferences.He received the Diploma in Electrical and Computer Engineering and the Ph.D. degree from the National Technical University of Athens (NTUA), Greece. His awards include the Best Paper Award at IEEE CISOSE 2023, Best Paper Award at IEEE iThings 2021, the Best Course Teaching Award (2021), and the Thomaidion Award (2017).His research interests include ambient intelligence, geospatial data management, and big geospatial data analytics.

Charalampos Davalas

Charalampos Davalas received the Diploma degree in Mathematics from the National and Kapodistrian University of Athens, Greece, in 2016, the M.Sc. degree in Informatics and Telematics from Harokopio University of Athens in 2018, and the Ph.D. degree in Machine Learning and Deep Learning from the same institution in 2025. His doctoral dissertation focused on adaptations of rehearsal methods for online continual learning.He has participated in several national and European research projects, including graph matching in cloud computing environments, human-centric autonomous computing systems (TEACHING), Earth system deep learning for seasonal fire forecasting (SeasFire and SeasFire2), advanced mechatronic systems for circular economy applications (R3-Mydas), and technologies for substance detection and violence prevention (ARMADILLO). He is currently involved in applied geoinformatics and interdisciplinary AI-driven research.His research interests include machine learning, deep learning, continual learning, and applied artificial intelligence systems.

Christos Kotronis

Dr. Christos Kotronis is a Senior Technical Manager at UBITECH and a dedicated teaching assistant at Harokopio University of Athens. He holds a Ph.D. and has conducted postdoctoral research in the Department of Informatics and Telematics at Harokopio University. His work focuses on developing innovative model-driven approaches for QoS, performance, cost, and ethical modeling. He has contributed to EU-funded projects such as RAIDO, AVALANCHE, and PRESERVE, serving as technical coordinator in two of them, and has been actively involved in the preparation of several Horizon Europe (HEU) proposals. His research has been validated through practical case studies in transportation, e-health, AI systems, and sensor networks, with a particular emphasis on analyzing dynamic behavior under real-time conditions.

Stavros Lounis

Dr. Stavros Lounis is a Senior Researcher at the ELTRUN E-Business Research Center of Athens University of Economics and Business (AUEB). He holds a PhD in Management Science and Technology from AUEB, a MSc in Information and Communication Technology (ICT) Systems from the School of Science and Technology of the International Hellenic University and a B.Sc. in Applied Informatics in Management and Finance from the Faculty of Management and Economics of the Technological Institute of Messolonghi. He has worked in the ELTRUN E-Business R.C. since 2012 with active involvement in 10+ EU Funded projects with various roles as User Requirements Elicitation, System Analysis, Design and Development, System Evaluation and Dissemination and Communication. His research interests focus on Gamification of Electronic Services and Innovation and Entrepreneurship and his work has been presented in peer-reviewed academic journals and conferences.

Aristotelis Ballas

Aristotelis Ballas completed his Ph.D. degree in Machine and Deep Learning from the Department of Informatics and Telematics, Harokopio University of Athens in 2025 and received his diploma in Electrical and Computer Engineering from the National Technical Univeristy of Athens, Greece in 2021. He is currently working as a

Postdoctorate AI & ML researcher in several HORIZON Europe projects. His research interests focus on robust algorithms for representation learning, with an emphasis on out-of-distribution generalization and AI in healthcare.

Ioannis Routis

Ο Ιωάννης Ρούτης είναι Ερευνητής και Διαχειριστής Ερευνητικών Έργων ΕΕ με ισχυρό διεπιστημονικό υπόβαθρο στην Πληροφορική, τη Διαχείριση Επιχειρησιακών Διαδικασιών (BPM) και τα Πληροφοριακά Συστήματα, καθώς και σημαντική εμπειρία σε ερευνητικά και καινοτόμα έργα χρηματοδοτούμενα από την Ευρωπαϊκή Ένωση. Η έρευνά του εστιάζει στην ανθρωποκεντρική μοντελοποίηση διαδικασιών έντασης γνώσης, με έμφαση στο CMMN και την ενσωμάτωση της τεχνητής νοημοσύνης και των μεθοδολογιών που βασίζονται σε δεδομένα (data-driven) για την υποστήριξη αποφάσεων και τον ψηφιακό μετασχηματισμό. Είναι κάτοχος διδακτορικού διπλώματος (PhD) Πληροφορικής από το Χαροκόπειο Πανεπιστήμιο και έχει συγγράψει δημοσιεύσεις σε διεθνή περιοδικά και συνέδρια, συμπεριλαμβανομένων των Software and Systems Modeling και Knowledge and Process Management. Τα ερευνητικά του ενδιαφέροντα εκτείνονται σε τομείς όπως τα Πληροφοριακά Συστήματα με επίγνωση διαδικασιών (process-aware), το IoMT (Internet of Medical Things) και τα συνεργατικά συστήματα. Διαθέτει εκτενή εμπειρία στον συντονισμό έργων Horizon 2020 και Horizon Europe, υπηρετώντας ως Διαχειριστής Έργου (Project Manager) σε πολλαπλά διεθνή κοινοπρακτικά σχήματα, ενώ παράλληλα έχει συνεισφέρει ως ερευνητικός συνεργάτης, αναλυτής επιχειρηματικών διαδικασιών (business analyst) και προγραμματιστής σε ευρωπαϊκά και εθνικά έργα. Έχει αποδεδειγμένη διδακτική εμπειρία σε προπτυχιακά και μεταπτυχιακά προγράμματα, υιοθετώντας μια φοιτητοκεντρική και πρακτική προσέγγιση που ενσωματώνει τη θεωρητική γνώση με εφαρμογές του πραγματικού κόσμου. Η διδασκαλία του δίνει έμφαση στην ενεργό μάθηση, την επίλυση προβλημάτων και τη χρήση μελετών περίπτωσης (case studies) που προέρχονται από ερευνητικά έργα της ΕΕ. Τα διδακτικά του ενδιαφέροντα εστιάζουν στη Μοντελοποίηση και Διαχείριση Επιχειρησιακών Διαδικασιών, την Ανάλυση και Σχεδίαση Πληροφοριακών Συστημάτων, την Τεχνητή Νοημοσύνη και τα Συστήματα Υποστήριξης Αποφάσεων, τις Τεχνολογίες Διαδικτύου και τον Ψηφιακό Μετασχηματισμό. Ακαδημαϊκός του στόχος είναι η συνεισφορά στην υψηλής ποιότητας διδασκαλία και έρευνα, ενισχύοντας παράλληλα τον δεσμό μεταξύ της ακαδημαϊκής κοινότητας, της βιομηχανίας και των ευρωπαϊκών πρωτοβουλιών καινοτομίας.

Christos Sardianos

Dr. Christos Sardianos is currently a Research Associate and Postdoctoral Researcher at the Department of Informatics and Telematics of the Harokopio University of Athens. He holds a Ph.D. in the field of Recommender Systems. He also holds an MSc in Informatics and Telematics in the area of Web Engineering (with Honors) and a BSc in Electronic Engineering. His main research topics of interest are related to Recommender Systems and their applications, Machine Learning, Data Mining, AI, and IoT. He has authored more than 50 articles published in International peer-reviewed journals and conferences on Recommender Systems, Knowledge Mining, Machine Learning and Content Personalization, focusing in the field of energy saving and human-centric systems, and has received more than 1700 citations. He has extensive experience in European and International research projects, mainly in knowledge management, data mining, machine learning, artificial intelligence, and personalized recommender systems, with applications in energy, transportation, and health (e.g. TEACHING (H2020), MASTER (H2020 - Marie Skłodowska-Curie Action), (EM)3 (Qatar National Funding), and Fortissimo (FP7)).

Giorgos Fragkiadakis

George M. Fragiadakis is a researcher at the Department of Informatics and Telematics, Harokopio University of Athens. He holds a Ph.D. from the same Department, with a dissertation focused on the techno-economic analysis of cloud services. He also holds an M.Sc. in Informatics and Telematics from Harokopio University of Athens and a B.Sc. in Physics from the National and Kapodistrian University of Athens.His academic and professional activity focuses on the design, development, operation, and evaluation of complex computing systems, with emphasis on cloud and distributed infrastructures, backend and data-driven applications, DevOps practices, observability, and AI-enabled systems, including Human-AI Collaboration environments. He participates in European and national research projects, including HumAIne and CERTAIN.In parallel, he has teaching experience at both undergraduate and postgraduate level, including full course responsibility for Logic Design and Cloud Management, as well as teaching contributions in courses related to cloud systems, software development, data science, and artificial intelligence applications. He has also supervised undergraduate thesis projects in areas such as software development, information systems, techno-economic analysis, and cloud/AI-oriented applications.

Vasileios Dalakas

Vassilis Dalakas (SMIEEE) holds a Ph.D. in Informatics and Telecommunications and has extensive experience and leadership in the fields of cybersecurity, digital transformation, cloud infrastructures, and telecommunications systems.He received his Ph.D. in 2010 from the Department of Informatics and Telecommunications at the National and Kapodistrian University of Athens, focusing on the development and simulation of advanced techniques for performance optimization of satellite communication systems over nonlinear channels (with honours). He also holds an M.Sc. in Signal Processing and Information Systems (2002, with honours) and a B.Sc. in Physics (1998).Since 2019, he has served in a strategic advisory role at the Ministry of Digital Governance of Greece, contributing to the design and implementation of large-scale national digital transformation initiatives. He has played a central role in the development and evolution of critical national infrastructures, including the Government Cloud (G-Cloud) and the SYZEYXIS II national telecommunications network, supporting technology decisions that impact hundreds of public organizations and thousands of information systems. His work includes the design of secure cloud architectures (IaaS/PaaS/SaaS), the development of cybersecurity governance frameworks, and risk management for critical digital infrastructures. He also acts as a key liaison with national and international stakeholders in cybersecurity incident response and resilience.Since 2014, he has been a member of the Laboratory Teaching Staff at Harokopio University of Athens, contributing to teaching and research in telecommunications and system simulation. He has taught both undergraduate and postgraduate courses and supervised numerous student theses, actively contributing to the education of the next generation of engineers and researchers. In parallel, he has played a key role in the design, deployment, and operation of large-scale cloud and ICT infrastructures in the academic sector.His research interests include satellite communications, system modeling and simulation, cloud computing, and large-scale information systems. He has participated in numerous European research projects (H2020, ESA, among others), undertaking roles in technical coordination, project management, and security consulting. He is the author of a significant number of publications in international journals and conferences, with contributions that bridge theoretical research and real-world applications.He has contributed to the development of international standards (ETSI DVB-RCS2) and has been a Senior Member of IEEE since 2015. He has also contributed to major public sector digital transformation projects that have received international recognition,

including the WITSA Global Innovation and Tech Excellence Awards (2023 and 2024), highlighting the impact of his work at both national and international levels.He possesses extensive technical expertise in cloud technologies, networking, cybersecurity, software development, and data analytics. He is fluent in English and has a good command of French and German.

Eleni Zenakou

Dr. Eleni An. Zenakou is a Lecturer and a member of the Special Teaching Staff (STP) at the Center for Foreign Language Teaching (CFLT) of Harokopio University of Athens. She teaches in the Undergraduate Program as well as in the postgraduate programs “Education & Culture” and “Sustainable Development” of the Department of Economics & Sustainable Development. In addition, she conducts “Experiential Seminars” on gender equality and anti-discrimination within the framework of the MSc program “Education & Culture.” She also serves as Vice President of the Gender Equality and Anti-Discrimination Committee at Harokopio University of Athens. As a member of this committee, she contributed to the drafting of the Gender Equality Action Plan of the University. She graduated from the Department of German Language and Literature of the National and Kapodistrian University of Athens and holds a PhD in Educational Psychology from the Department of Economics & Sustainable Development of Harokopio University of Athens. She has also taught at universities in European countries within the framework of the TEACHING MOBILITY STA ERASMUS+ program. During the period 2008–2010, she served as President of the Board of Directors of the Research Centre for Gender Equality (KETHI). Furthermore, she was elected as a Councillor of the 7th Municipal District of the Municipality of Athens (2003–2010), served as President of the Municipal Committee for Education (2003–2006), and as President of the 7th Municipal District (2007–2010).

Eleni Politi

Dr. Elena Politi is a postdoctoral researcher in the Department of Informatics and Telematics at Harokopio University of Athens. She earned her Ph.D. in 2025 with a dissertation entitled “AI-Enabled Management of Next-Generation Autonomous Transport Systems.” She also holds a B.Sc. in Physics from the National and Kapodistrian University of Athens and an M.Sc. in Telecommunication Networks and Telematic Services from Harokopio University, graduating with distinction and receiving an excellence award. Her research focuses on next-generation IoT and Edge-Computing applications, Intelligent Transportation Systems, and AI-enabled optimization algorithms for Autonomous Vehicles. She teaches undergraduate and postgraduate courses on Wireless and Mobile Network Technologies, and Telematics Applications in Transportation and Health. Since 2018, she has been actively engaged in proposal writing and has served as a project manager in numerous EU-Funded projects, including Horizon Europe, covering a wide range of sectors such as Transport and Mobility, Manufacturing, Health, Agriculture, and Energy.

Evangelia Filiopoulou

Evangelia Filiopoulou is a Research Associate at the Department of Informatics and Telematics of Harokopio University of Athens. She holds a BSc in Informatics and Telecommunications from the University of Athens, an MSc in Techno-Economic Systems from the National Technical University of Athens (NTUA), and a PhD in the field of cloud financial operations from Harokopio University. She has completed her postdoctoral research on "Internet of

Things in Logistics: Last-Mile Service Using Drones — Challenges and Opportunities".Her research interests include the study of costing and pricing models for cloud services, optimization of computational resource utilization, development of performance indicators within the FinOps framework, integration of machine learning methodologies into FinOps processes for automated cost anomaly detection, expenditure forecasting, and decision-making in complex computing systems.

Department Secretariat

The staff of the Secretariat consists of high-level executives with postgraduate studies and excellent training.

Dr. Angeliki Niki Presvelou

Dr. Angeliki Niki Presvelou is the Deputy Head of the Secretariat at the Department of Informatics and Telematics of the School of Digital Technology of Harokopio University from 2022. She holds a PhD from the Department of Sociology of the Panteion University of Social and Political Sciences on the subject "Social and demographic changes: health structures, morbidity and mortality in Argolis in the 19th century. The case of the municipal hospital of Nafplio, 1837-1861". She holds a Master's Degree (D.E.A.) in Demography from Paris I-Pantheon-Sorbonne, UFR d'Histoire. She received her Undergraduate Diploma from the Department of Sociology of the Panteion University of Social and Political Sciences. She has worked in administrative positions of responsibility in both the public and private sectors. Her scientific interests are in the field of Historical Demography, History of Health and digitization of Historical Demographic Data.

Foteini Daneli

Foteini Daneli is a member of Special Technical Laboratory Staff (ETEP) at the Department of Informatics and Telematics of the School of Digital Technology of Harokopio University of Athens, since 2019. She holds a Bachelor's degree in Geography (2006) and a Master's degree in Applied Geography and Spatial Planning / Spatial Policies and Development in Europe (2009), both from the Department of Geography at Harokopio University of Athens. From 2007 to 2019, she contributed to Harokopio University by supporting administrative, financial and technical processes of the Department of Informatics and Telematics. She actively participated in various activities, EU and national projects. Additionally, she has professional experience in spatial analysis and real estate matters within the private sector. Her interests include topics related to urban development, spatial planning, applications of Geographic Information Systems (GIS) and smart cities.

Eleni Kalampaliki

Eleni Kalampaliki is a member of Special Technical Laboratory Staff (ETEP) at the Department of Informatics and Telematics of the School of Digital Technology of Harokopio University of Athens. She holds a Bachelor's Degree in Home Economics and Ecology (2006) and a Master's Degree in Education and Culture both from the Department of Home Economics and Ecology at Harokopio University of Athens. From 2006 to 2023, she contributed to Harokopio University by supporting mostly administrative and technical processes of the Department of Informatics and Telematics. She actively participated in various activities, EU and national projects.

Foteini - Maria Mine

Foteini - Maria Mine works at the Secretariat of the Department of Informatics and Telematics, School of Digital Technology of Harokopio University since 2022. She holds a bachelor degree in International and European Studies and a master's degree in

Maritime Studies of the University of Piraeus. In the past, she has worked in various administrative positions of responsibility both in the private and public sectors.

Nikolaos Sfakianos

Nikolaos Sfakianos is a Sociologist, a graduate of Panteion University since 2014. He received two Master's degrees, from the same University, in Sociology and Social Psychology in 2006 and 2020 respectively. From 2021, he is working on his PhD thesis entitled: "Social Comparison in General Use Social Networking Media: Masculinity - Femininity Standards and Influence on the User's Self-Esteem". Subsequently, he has worked in the private sector as a business consultant, participating as an external collaborator in research projects since 2019, while his interests are focused on social research methods, social representations of Social Media and the sociology of emotions. From 2022, he works at Harokopion University in supporting activities related to quality management and evaluation of the Postgraduate Programs of the Department of Informatics and Telematics.

Working hours

The Secretariat serves students, staff and the public on working days between 10:00 and 13:00.

International Advisory Board

The Department has set up an International Advisory Committee made up of distinguished academics in the field of Informatics and Telematics. It is made up of internationally distinguished foreign academics in the field of Informatics and Telematics. Its role is multifaceted, aiming to ensure the best quality in:

- academic curriculum development, and
- in participating in high-level research actions

The Committee acts supportively in the organizational and academic development of the Department, and strengthens its international collaborations with the aim of developing synergies.

Contact

Address

9 Omirou Street, Tavros, 17778 (2nd floor)

Tel.: +30 210 9549400 (Secretariat),

+30 210 9549402 (Deputy Head of the Secretariat)

Email: itpsec@hua.gr

Access

Figure 16. Exterior View of the Department of Informatics and Telematics.

The Department is housed in the newly built University building at 9 Omirou Street, in Tavros. The building is located at a distance of 800 meters from the main complex of Harokopio University on El. Venizelou 70, in Kallithea.

Buses - Transportation

Access to the IT and Telematics Department is done in the following ways:

- ISAP (Line 1 – Electric). Eleftherios Venizelos Station (Tauros). From there, walking for about 3 minutes next to the electric lines, in the direction of Piraeus, you reach Omirou Street. The building is on your right.
- ILPAP (Trolley), Line 3 or 5. OSY (City Bus), Line 040. Stop outside the central Harokopio (El. Venizelou). From there, following Harokopou Street and then crossing the ISAP station of Tavros, you will reach the Department of Informatics and Telematics by walking for about 10 minutes.

Map

Figure 17. Location Map of the Department of Informatics and Telematics.

Studies

Studies - Teaching

The duration of study in the Department for obtaining a degree is eight (8) semesters, and the completion of the program requires a total of 240 ECTS credits. The undergraduate studies are organized as follows:

Academic Year Organization

The start and end of the academic year, the scheduling of semesters and examination periods, the number of scheduled lectures, and holidays are defined in the institution's study regulations and announced on the program's website [here](https://dit.hua.gr/index.php/el/).

Examination Periods

The time and place of the examinations are determined by the institution's study regulations. At the discretion of the course instructors, the evaluation of a course may be based on exempting assignments, which should have the appropriate workload, in accordance with the course's ECTS descriptions.

Use of ICT

Information and Communication Technologies (ICT) are used in the presentation of courses through the following means:

- Electronic notes.
- Course material (slides and supplementary content) and various applications used during the educational process are available through the e-class platform.

Additionally, ICT is used in teaching through:

- Use of the e-class distance learning platform.
- Electronic presentations, e-class (material, assignment management, etc.).
- Electronic communication with students (student records, mail, announcements, etc.).

ICT is directly linked to laboratory education as the labs in computer science courses are entirely conducted on computers. The labs also support various application development environments according to the needs of each course.

In student performance evaluation, ICT is mainly utilized through the e-class platform for assignment management (submission of assignments and announcement of results are done through e-class), and in some courses, the laboratory examination of exercises is conducted directly in electronic environments.

Finally, ICT is used in the communication between students and instructors in the following ways:

- Using the e-class electronic platform (student management, communication, discussions).
- Using email.
- Posting announcements electronically.
- Using the students' electronic forum.

Distance Learning Room

The University has a well-organized distance learning room, adequately supported by the University's technical services. The availability of this service is significant for connecting the Department with other similar departments in Greece and abroad, aiming to improve communication and achieve the educational and research goals of the Department's faculty members.

Building and Laboratory Infrastructure

Figure 18. Staircase of the Department of Informatics and Telematics.

In June 2013, the construction and equipment of the University's new 6-story building were completed. This building was originally designed to host the new Department, and the Department was relocated there, along with the renewal of laboratory, central computing, and network equipment. With the help of the Information and Network Center, a proprietary optical fiber network has been installed and is operational, connecting the Department's building on Omirou Street with the University's main complex. This optical fiber network allows for uninterrupted internet access while saving resources, as no telecommunication fees are paid to providers.

The Department includes all the necessary classrooms and laboratory facilities to primarily support the teaching activities:

Figure 19. Second-Floor Laboratory of the Department of Informatics and Telematics.

Figure 20. Auditorium of the Department of Informatics and Telematics.

Classrooms:

- An auditorium with a capacity of 140 people, equipped with multimedia equipment.

- Three (3) classrooms with a capacity of over 40 people each, equipped with: a projection system, a camera, and a microphone.

Laboratories:

- 2 PC/Linux laboratories, each equipped with: 35 workstations per laboratory, a heavy-duty printer, and an interactive whiteboard.

Erasmus Student Exchange Program at the Department of Informatics and Telematics

The Department has forged a robust network of collaborations with esteemed International Universities and Research Centers, underscoring its commitment to academic excellence. Embracing the Erasmus+ program, the Department endeavors to enrich the mobility of students, faculty, and administrative staff by fostering connections with partner institutions across Europe.

To facilitate this, the Department actively engages in establishing bilateral Erasmus+ agreements with European Universities, spanning all academic levels—undergraduate, postgraduate, and doctoral studies. These agreements not only support the exchange of teaching staff but also encourage the mobility of administrative staff for specialized training.

Pioneering a proactive approach, the Department consistently explores new partnerships to create fresh opportunities for its students. Within the framework of these agreements, provisions are made for reciprocal student exchanges with European institutions, while faculty and administrative staff visits are facilitated for teaching and practical training, respectively.

Participating students in the Erasmus program enjoy full recognition of their successfully completed coursework at partner institutions, with the ability to transfer these credits back to their home institution based on pre-agreed terms with the department head Erasmus coordinator. This ensures a seamless transition upon completion of their study program, mitigating any loss of time or credits.

The Department places a strong emphasis on supporting two-way mobility—both to and from Harokopio University. This commitment is evident in the initiatives undertaken, such as inviting lecturers at both undergraduate and postgraduate levels and creating conducive conditions for incoming students to attend offered courses.

Expanding its horizons beyond Europe, the Department actively participates in the Erasmus Mundus program, aiming to fortify the mobility of researchers to and from international universities outside Europe. The ERASMUS Office, under the Department of International and Public Relations, plays a pivotal role in facilitating the conclusion and operation of agreements, thereby strengthening Harokopio University's external relations and internationalization efforts. This collaborative approach fosters robust academic partnerships, primarily within the European Higher Education Area and beyond, contributing to the university's global presence and academic excellence.

Figure 21. Auditorium of the Department of Informatics and Telematics.

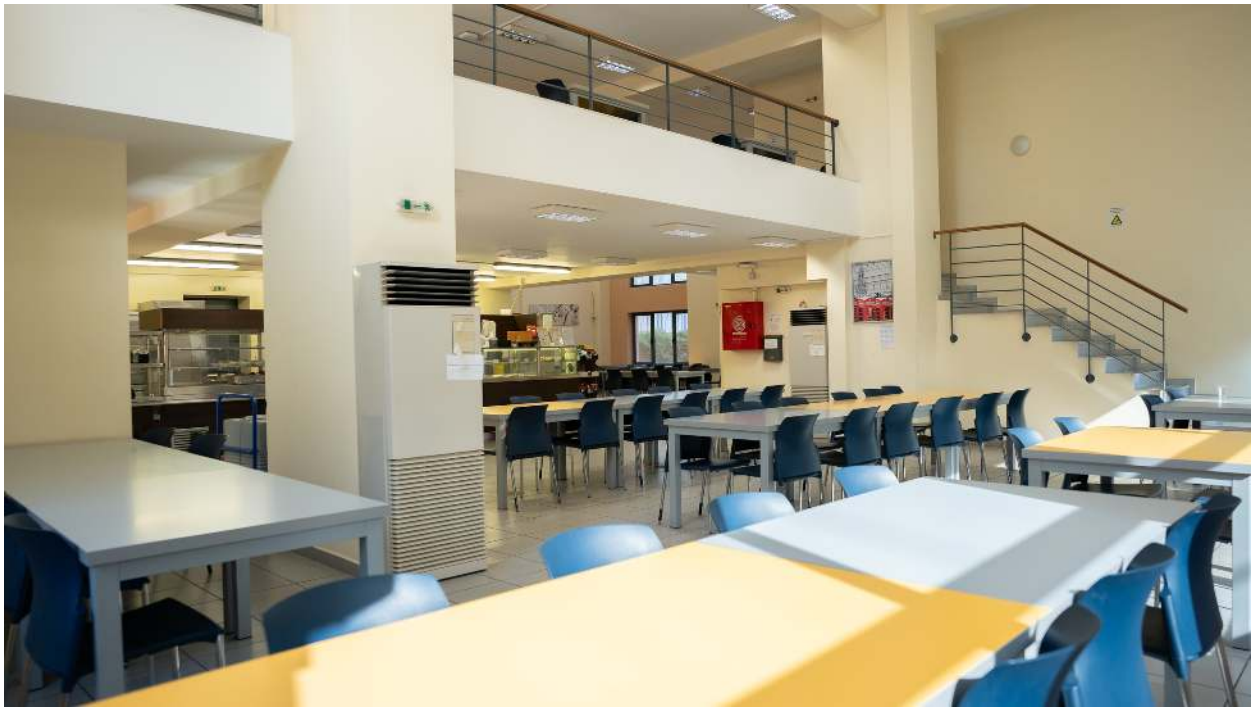

Figure 22. Restaurant of the Department of Informatics and Telematics.

Extroversion

The Department implements specific outreach measures aimed at increasing its penetration into society while also targeting internationalization. Indicatively, there are the official department pages on social networks Facebook and LinkedIn, the department's YouTube channel, which also includes several video lectures from undergraduate and postgraduate courses, the courses offered by the department through the opencourses platform, and the department's website. The department, sometimes through the institution's career office, organizes school visits to its facilities to familiarize students with new technologies and attract good candidates through the national university entrance exams. Simultaneously, it organizes events/lectures where speakers from the industry and IT companies in Greece and internationally are invited. Additionally, the Department organizes student groups to participate in code competitions (hackathons) such as the EUvsVirus hackathon 2020, and organizes similar events within the framework of research programs (e.g., AffectUs hackathon 2018, PHYSICS hackathon 2023). It also encourages the creation of student groups (Harokopio Google Student Developer Club) and participation in corresponding activities (Google Summer of Code 2022, 2023).

Social Networks of the Department

The Department has a significant presence on social networks through its official pages which are the following:


https://www.facebook.com/ditharokopio/


https://www.linkedin.com/company/77699385


https://www.youtube.com/channel/UCEHkYirpXF1nSLxDCrfDZ4A


https://www.instagram.com/dithua/

Undergraduate Studies Program

Objectives

The Undergraduate Program (UGP) of the Department of Informatics and Telematics aims to cultivate and advance the comprehensive fields of Informatics and Telematics, with an emphasis on internet technologies and services, data science, artificial intelligence, cloud computing systems, the internet of things, and the development of corresponding electronic applications. Information and communication technologies play a particularly significant role in the implementation of these systems, which have various applications such as in smart cities, e-business, e-government, and e-health. Graduates of the program possess a complete set of scientific and technical skills directly related to the application areas of Informatics, enabling them to meet the contemporary demands of the job market.

The Department encourages the extensive use of Free Software and Open-Source Software (FOSS) technologies in all courses of the undergraduate program. The integration of these technologies into the curriculum aims to promote innovation, collaboration, and practical training of students. Through access, modification, and improvement of open-source code, students acquire valuable skills and a deeper understanding of the fundamental principles of Informatics. Furthermore, the use of FOSS contributes to reducing software costs, allowing for the broader availability of advanced tools and platforms to students. Familiarity with FOSS technologies also enhances the professional prospects of graduates, meeting the increasing demand of the international job market for expertise in these technologies.

Learning Outcomes

The learning outcomes of the program include:

- Analyze a problem and apply knowledge of computing and mathematics in order to develop an appropriate solution to the problem.
- Identify and analyze user needs in order to design, implement, and evaluate a computer-based system, process, or program to meet those needs.
- Analyze human computer interactions, including user differences, user experience and collaboration, and user and task analysis.
- Collaborate effectively as part of a team to accomplish a common goal.
- Identify ethical, social and professional issues in the field of IT, and analyze the roles and responsibilities of computing professionals in addressing those issues.
- Communicate effectively with a wide range of audiences in written and oral modes.
- Develop a project baseline plan and understand how to form project teams, identify roles, and assign responsibilities.
- Analyze personal professional development needs and identify opportunities for professional development.

The program should combine both technical and soft skills to ensure that graduates are technical competitive in the computer-related marketplace, but also able to navigate themselves in the business environment. The program also fosters a mandatory diploma thesis and internship opportunities as an elective course.

Teaching Methods

By following one of the suggested tracks, students will gain specific learning benefits related to:

- Specializing in the development of applications and services that leverage modern computing and internet technologies.
- Specializing in the design and implementation of telematics applications (ITS, sensornets, e-health, e-business, etc.) and the techno-economic analysis of telecommunication services and networks.
- Specializing in the field of Management Information Systems.

Moreover, through the use of modern educational methods that combine:(i)he use of electronic applications and tools,(ii) tutorial exercises, and (iii)analysis of real-world case studies from both private and public sector organizations,

students will enhance individual and organizational skills, such as:

- Problem formulation and resolution,
- Identification of optimal practical solutions,
- Teamwork,
- Report writing, and
- Use of research methods.

In all courses, particular emphasis is placed on the laboratory component, providing students with the opportunity to engage with the technologies they study in practice through integrated environments based on either open-source technologies or established technological choices.

Program Outline

The program is outlined as follows:

Semester	Course	Teaching Hours (in total)	ECTS	Category
Semester 1º				
1	Effective Academic Writing	39	5	General Education
1	Linear Algebra	39	6	General Education
1	Introduction to the Greek Language	39	5	General Education
1	Discrete Mathematics	39	6	Foundation - Low
1	Introduction to Computing	52	8	Foundation - Low
			Semester ECTS	**30**
Semester 2º				
2	Analyzing Race Class Gender	39	5	General Education
2	Physics	39	6	General Education
2	Greek History and Arts	39	5	General Education
2	Platform Technologies	39	6	Foundation - Low
2	Introduction to OO programming	52	8	Foundation - Low

Semester	Course	Teaching Hours (in total)	ECTS	Category
			Semester ECTS	**30**
Semester 3º				
3	Statistics	39	6	General Education
3	Technical Writing	52	8	General Education
3	Introduction to Web Programming	52	8	Foundation - Low
3	Operating Systems	52	8	Foundation - Low
			Semester ECTS	**30**
Semester 4º				
4	Intro to Economics	39	6	General Education
4	Data Comm and Networks	52	8	Foundation - Low
4	Advanced Programming	52	8	Foundation - Low
4	Database Systems	52	8	Foundation - Low
			Semester ECTS	**30**
Semester 5º				
5	Human Computer Interaction	52	7.5	Foundation - Upper

Semester	Course	Teaching Hours (in total)	ECTS	Category
5	Web and Mobile Systems Development	52	7.5	Foundation - Upper
	Selection 2 out of 4			
5	KData Scalability and Analytics	52	7.5	Foundation - Upper
5	Introduction to Artificial Intelligence	52	7.5	Foundation - Upper
5	Information Systems	52	7.5	Foundation - Upper
5	Cybersecurity	52	7.5	Foundation - Upper
			Semester ECTS	**30**
Semester 6ο				
6	Systems Analysis & Design	52	7.5	Foundation - Upper
6	Information Security & Policy	52	7.5	Foundation - Upper
	election 2 out of 4			
6	Advanced Computing Models: Virtualization Cloud & Mobile Computing	52	7.5	Foundation - Upper
6	Software Engineering	52	7.5	Foundation - Upper
6	Applied Machine Learning	52	7.5	Foundation - Upper
6	Mobile Networks and IoT	52	7.5	Foundation - Upper

Semester	Course	Teaching Hours (in total)	ECTS	Category
			Semester ECTS	**30**
Semester 7ο				
7	Project Management in IT/IS	52	7.5	Foundation - Upper
7	Business Continuity Planning and Disaster Recovery	52	7.5	Foundation - Upper
	Selection 2 out of 4			
7	Knowledge Management	52	7.5	Foundation - Upper
7	Advance Programming Frameworks and APIs	52	7.5	Foundation - Upper
7	Technology Assessment	52	7.5	Foundation - Upper
7	System Paradigms	52	7.5	Foundation - Upper
			Semester ECTS	**30**
Semester 8ο				
8	Social, Professional & Ethical Issues in Computing	52	6	Ειδίκευσης
8	Thesis	-	14	Foundation - Upper
	Selection 10 ECTS			
8	Communication for Success: Advanced Level	39	5	Elective

Semester	Course	Teaching Hours (in total)	ECTS	Category
8	Technology innovation and entrepreneurship	39	5	Elective
8	Sustainability, Computing and Green Economy	39	5	Elective
8	Spatial Data Technologies	39	5	Elective
8	Internship	-	10	Elective
			Semester ECTS	**30**
			Total ECTS	**240**

Upon student request a specialization may also be indicated in the diploma transcripts. To be able to do so, the student should attend successfully (passing grade) specific foundation - upper course. The courses mandatory for each specialization are summarized in the following table:

Specialization	**Upper Foundation Courses**
Systems and Application Development	1. Advanced Computing Models: Virtualization Cloud & Mobile Computing 2. Advance Programming Frameworks and APIs 3. Cybersecurity 4. Mobile Networks and Internet of Things
Data Science and AI	1. Introduction to AI 2. Data Scalability and Analytics 3. Applied Machine Learning 4. Knowledge Management
Technology Management	1. Software Engineering 2. Information Systems

Specialization	Upper Foundation Courses
	3. System Paradigms 4. Technology Assessment

Detailed list of all the courses offered is listed below:

Code	Semester	Title	Teaching Hours	ECTS Credits	Type
BSC_IT1	1	Effective Academic Writing	3	5	General Educ
BSC_IT2	1	Linear Algebra	3	6	General Educ
BSC_IT3	1	Introduction to the Greek Language	3	5	General Educ
BSC_IT4	1	Discrete Mathematics	3	6	General Educ
BSC_IT5	1	Introduction to Computing	4	8	Foundation
BSC_IT6	2	Analyzing Race Class Gender	3	5	General Educ
BSC_IT7	2	Physics	3	6	General Educ
BSC_IT8	2	Greek History and Arts	3	5	General Educ
BSC_IT9	2	Introduction to OO programming	4	8	Foundation
BSC_IT10	2	Platform Technologies	3	6	Foundation
BSC_IT11	3	Statistics	3	6	General Educ
BSC_IT12	3	Technical Writing	4	8	General Educ
BSC_IT13	3	Introduction to Web Programming	4	8	Foundation
BSC_IT14	3	Operating Systems	4	8	Foundation

BSC_IT15	4	Intro to Economics	3	6	General Educ
BSC_IT16	4	Data Comm and Networks	4	8	Foundation
BSC_IT17	4	Advanced Programming	4	8	Foundation Upper
BSC_IT18	4	Database Systems	4	8	Foundation
BSC_IT19	5	Human Computer Interaction	4	7.5	Foundation Upper
BSC_IT20	5	Data Scalability and Analytics	4	7.5	Foundation Upper
BSC_IT21	5	Web and Mobile Systems Development	4	7.5	Foundation Upper
BSC_IT22	5	Introduction to Artificial Intelligence	4	7.5	Foundation Upper
BSC_IT23	5	Information Systems	4	7.5	Foundation Upper
BSC_IT24	5	Cybersecurity	4	7.5	Foundation Upper
BSC_IT25	6	Systems Analysis & Design	4	7.5	Foundation Upper
BSC_IT26	6	Information Security & Policy	4	7.5	Foundation Upper
BSC_IT27	6	Advanced Computing Models: Virtualization Cloud & Mobile Computing	4	7.5	Foundation Upper
BSC_IT28	6	Software Engineering	4	7.5	Foundation Upper
BSC_IT29	6	Applied Machine Learning	4	7.5	Foundation Upper
BSC_IT30	6	Mobile Networks and IoT	4	7.5	Foundation Upper
BSC_IT31	7	Advance Programming Frameworks and APIs	4	7.5	Foundation Upper
BSC_IT32	7	Business Continuity Planning and Disaster Recovery	4	7.5	Foundation Upper
BSC_IT33	7	Knowledge Management	4	7.5	Foundation Upper

BSC_IT34	7	Project Management in IT/IS	4	7.5	Foundation Upper
BSC_IT35	7	Technology Assessment	4	7.5	Foundation Upper
BSC_IT36	7	System Paradigms	4	7.5	Foundation Upper
BSC_IT37	8	Social, Professional & Ethical Issues in Computing	4	6	Foundation Upper
BSC_IT38	8	Communication for Success: Advanced Level	3	5	Elective
BSC_IT39	8	Technology innovation and entrepreneurship	3	5	Elective
BSC_IT40	8	Sustainability, Computing and Green Economy	3	5	Elective
BSC_IT41	8	Spatial Data Technologies	3	5	Elective
BSC_IT42	8	Diploma Thesis	-	14	Foundation Upper
BSC_IT43	8	Internship	-	10	Elective

Detailed Course Description

1st Semester

BSC_IT1 – Effective Academic Writing

The course focuses on the development of academic writing skills for scientific and scholarly communication. It introduces the fundamental structure of academic work, including introduction, main body, and conclusions, as well as techniques for organizing and presenting arguments effectively. Particular emphasis is placed on the proper use and citation of bibliographic sources, the avoidance of plagiarism, and the application of standard referencing formats. Students become familiar with writing essays, reports, and presentations, while also developing critical reading skills and the ability to evaluate the quality and reliability of sources.

BSC_IT2 – Linear Algebra

The course provides a systematic introduction to the fundamental concepts of linear algebra, which constitute a core mathematical tool for computer science and engineering applications. It covers vectors and matrices, along with their operations, emphasizing both geometric and algebraic interpretations. Methods for solving systems of linear equations, such as Gaussian elimination, are presented, along with the concept of matrix rank. The course further introduces vector spaces, bases, and dimensionality, as well as linear transformations and their representations. Special attention is given to eigenvalues and eigenvectors and their applications in areas such as data analysis, computer graphics, and machine learning.

BSC_IT3 – Introduction to the Greek Language

The course aims to develop both basic and advanced skills in the use of the Greek language, with emphasis on academic and professional communication. It includes the study of grammatical and syntactical structures, vocabulary enrichment, and comprehension of various types of texts. Students practice written expression through descriptive and argumentative writing, as well as the understanding of spoken language. Particular emphasis is placed on accuracy, clarity, and coherence, which are essential for effective academic and professional communication.

BSC_IT4 – Discrete Mathematics

This course covers the fundamental concepts and techniques of discrete mathematics, which form the theoretical foundation of computer science. It begins with mathematical logic, including propositional and predicate logic, and proof techniques such as induction and proof by contradiction. It then explores sets, relations, and functions, along with their properties. Core topics in combinatorics, including permutations and combinations, are introduced, as well as an introduction to graph theory with applications in networks and algorithms. The course emphasizes the development of analytical and algorithmic thinking.

BSC_IT5 – Introduction to Computing

The course provides a comprehensive introduction to computer science and its fundamental concepts. It presents the basic components of computing systems, including hardware and software, and their interaction. The concept of algorithms and algorithmic thinking is introduced through simple problem-solving examples. Students are also introduced to programming languages and fundamental concepts such as variables and control structures. Additionally, the course explores the applications of computing across various domains and its role in modern digital society.

2nd Semester

BSC_IT6 – Analyzing Race Class Gender

The course examines key concepts of social theory such as race, social class, and gender, with an emphasis on understanding inequality and discrimination. Students are introduced to the concept of intersectionality and analyze social phenomena through a critical perspective. The course strengthens the ability to evaluate sources and develop well-supported arguments on contemporary social issues, fostering awareness and sensitivity to diversity and inclusion.

BSC_IT7 – Physics

The course introduces fundamental principles of physics with applications relevant to computer science. It covers mechanics, wave phenomena, electromagnetism, and basic principles of electronic circuits. Introductory concepts of quantum physics are also presented, along with their connection to modern technologies such as quantum computing and wireless communications. The course emphasizes analytical thinking and problem-solving skills.

BSC_IT8 – Greek History and Arts

The course presents the major periods of Greek history and the evolution of the arts from prehistory to modern times. Students learn to connect historical developments with artistic movements, analyze works of art, and understand the influence of Greek culture on Western civilization. Emphasis is placed on the development of critical thinking and the use of digital tools for cultural and historical research.

BSC_IT9 – Introduction to OO Programming

The course introduces the fundamental principles of object-oriented programming using Java. It covers key concepts such as classes, objects, encapsulation, inheritance, and polymorphism, as well as basic data structures and exception handling. Students develop simple applications while building skills in algorithmic thinking and software design.

BSC_IT10 – Platform Technologies

The course provides a foundation in computer architecture and modern computing platforms. It includes topics such as computer design using RISC-V, performance analysis, pipelining, and memory hierarchy. It also introduces concepts such as virtualization, containerization, and cloud computing (IaaS, PaaS, SaaS), providing a basis for understanding distributed and large-scale systems.

3rd Semester

BSC_IT11 – Statistics

The course introduces fundamental concepts of probability theory and statistics with applications in computer science. It covers random variables, probability distributions, sampling techniques, and the Central Limit Theorem. Methods of statistical inference are presented, including hypothesis testing and basic regression models. Students gain hands-on experience using tools such as R or Python for data analysis, enabling them to interpret and model real-world data.

BSC_IT12 – Technical Writing

The course focuses on the production of clear, structured, and effective technical documentation. Students learn how to write technical reports, user manuals, and software documentation, adapting style and content to different target audiences. Emphasis is placed on the use of tools such as Markdown and LaTeX, as well as on visualization techniques and collaborative writing practices. The course enhances communication skills essential for technical and professional environments.

BSC_IT13 – Introduction to Web Programming

The course introduces the fundamental technologies for web application development. It covers HTML, CSS, and JavaScript for front-end development, as well as basic concepts of back-end systems, databases, and client–server architecture. Students develop dynamic web pages and simple web applications while applying best practices in security, code organization, and maintainability.

BSC_IT14 – Operating Systems

The course presents the structure and functionality of operating systems. It covers process and thread management, synchronization mechanisms, CPU scheduling, memory management, and file systems. Additionally, it introduces basic security concepts and practical usage of Unix/Linux environments. The course aims to develop an understanding of how operating systems manage resources and ensure efficient and reliable system performance.

4th Semester

BSC_IT15 – Intro to Economics

The course introduces fundamental concepts of microeconomics, including supply and demand, market equilibrium, elasticity, and market structures such as competition, monopoly, and oligopoly, with applications in Information and Communication Technologies (ICT). It also presents methods for techno-economic analysis and investment evaluation, including Net Present Value (NPV), Internal Rate of Return (IRR), and Payback Period. Additionally, students are introduced to basic principles of business planning, cost analysis, and demand forecasting.

BSC_IT16 – Data Comm and Networks

The course covers the fundamental principles of computer networks and data communications. It introduces the OSI and TCP/IP models, along with the functions of the Physical, Data Link, Network, and Transport layers. Emphasis is placed on transmission techniques, routing algorithms, flow control, congestion control, and network performance analysis. The course provides a solid foundation for understanding modern communication systems.

BSC_IT17 – Advanced Programming

The course explores advanced programming concepts, including data structures such as lists, stacks, queues, trees, and graphs, as well as design patterns. It introduces principles of functional programming (e.g., map, filter, reduce) and software testing techniques. In addition, modern programming paradigms such as concurrent and asynchronous programming are covered, including event-driven models, futures, and async/await. The course emphasizes writing efficient, scalable, and maintainable code.

BSC_IT18 – Database Systems

The course introduces the fundamental principles of database design and management. Students learn how to model data using Entity–Relationship (ER) diagrams and transform them into relational schemas. Emphasis is placed on SQL for data definition and manipulation, as well as on normalization, integrity constraints, and query optimization techniques. The course equips students with the skills required to design and manage efficient database systems.

5th Semester

BSC_IT19 – Human Computer Interaction

The course introduces the fundamental principles of Human–Computer Interaction (HCI), with emphasis on designing user-friendly and efficient interfaces. Students learn to analyze user needs, apply usability principles, and design wireframes and prototypes. The course includes evaluation methods such as heuristic evaluation and

usability testing, as well as core principles of accessibility and user experience (UX). It aims to equip students with the skills required to design intuitive and effective interactive systems.

BSC_IT20 – Data Scalability and Analytics

The course covers the fundamental concepts of managing and analyzing large-scale data (big data). It presents architectures for data storage and distributed processing, cloud technologies, and modern data analytics tools. Students become familiar with data preprocessing, analysis, and visualization techniques, as well as performance and scalability challenges in data-intensive systems. The course emphasizes practical approaches to extracting value from large datasets.

BSC_IT21 – Web and Mobile Systems Development

The course focuses on the development of full-stack applications. Students build web applications using Vue.js and back-end services using Node.js (REST APIs), as well as mobile applications for Android platforms. It covers system integration, data management, and authentication mechanisms, with emphasis on modern development practices, scalability, and maintainability. Students gain hands-on experience in building end-to-end applications.

BSC_IT22 – Introduction to Artificial Intelligence

The course introduces fundamental concepts of Artificial Intelligence, including search in state spaces, adversarial search, and constraint satisfaction problems. It also presents core principles of reinforcement learning and machine learning (e.g., linear regression), with emphasis on applying algorithms to practical problems. The course develops problem-solving skills and provides a foundation for more advanced AI topics.

BSC_IT23 – Information Systems

The course examines the role of information systems within organizations. It introduces key system categories such as TPS, MIS, DSS, and ERP, as well as concepts of business intelligence and data analytics. It also addresses issues of IT security and governance. Emphasis is placed on aligning technological solutions with business needs and understanding the principles of IT project management and organizational impact.

BSC_IT24 – Cybersecurity

The course introduces students to the core principles and practices of cybersecurity, fostering a strong security-oriented mindset. It presents modern network vulnerabilities and protection techniques, along with fundamental concepts of applied cryptography. Topics include information security management, development of policies and procedures, legal and regulatory frameworks, access control mechanisms, and data protection. Students gain familiarity with threat detection and prevention techniques and complete a group project based on real-world security scenarios.

6th Semester

BSC_IT25 – Systems Analysis & Design

The course focuses on the principles and methodologies of software and systems analysis and design. Students use UML for system modeling and the development of software specifications. It covers requirements engineering, system architectures, and techniques for software verification and validation. The course emphasizes structured thinking and the systematic design of complex systems.

BSC_IT26 – Information Security & Policy

The course covers key concepts of information security, including the CIA triad, risk analysis, and the design of security policies. It introduces regulatory frameworks such as GDPR and ISO 27001, as well as protection techniques and incident management practices. Emphasis is placed on security governance and the role of human factors in maintaining secure information systems.

BSC_IT27 – Advanced Computing Models: Virtualization Cloud & Mobile Computing

The course explores modern computing architectures, including cloud computing, virtualization, and distributed systems. It covers multi-cloud management, serverless models, and edge/mobile computing. Emphasis is placed on security, compliance, and resource optimization, as well as on AI-driven operational approaches (AIOps). The course prepares students to design and manage scalable and efficient computing infrastructures.

BSC_IT28 – Software Engineering

The course presents the fundamental principles of software development, covering the entire lifecycle from requirements analysis to maintenance. It includes UML modeling, software architectures, Agile and Scrum methodologies, testing, and DevOps practices. Students gain experience in collaborative software development and project management, preparing them for real-world software engineering environments.

BSC_IT29 – Applied Machine Learning

The course focuses on the implementation of modern machine learning and deep learning algorithms using PyTorch. It covers neural networks such as MLPs, CNNs, and RNNs, as well as Transformer architectures and applications in computer vision and natural language processing. Emphasis is placed on practical development, evaluation, and optimization of models, enabling students to build real-world AI solutions.

BSC_IT30 – Mobile Networks and IoT

The course covers the fundamental principles of wireless networks and the Internet of Things (IoT). It introduces technologies such as 4G/5G, IoT protocols (e.g., MQTT, CoAP), and the development of applications using sensors

and embedded systems (Arduino, Raspberry Pi). It also examines issues related to security, cloud integration, and IoT data analytics, preparing students to design and implement modern interconnected systems.

7th Semester

BSC_IT31 – Advance Programming Frameworks and APIs

The course introduces students to advanced programming practices in the context of web-based data sources. It includes the use of open data APIs (e.g., smart cities, smart campus) and the design of software architectures for data and event distribution. Modern approaches such as serverless computing and event-driven architectures are presented, with the goal of developing scalable, cloud-native applications. Emphasis is placed on integration, interoperability, and real-time data processing.

BSC_IT32 – Business Continuity Planning and Disaster Recovery

The course covers the fundamental principles of Business Continuity Planning (BCP) and Disaster Recovery (DR). Students learn to identify risks, conduct Business Impact Analysis (BIA), design continuity plans, and develop recovery strategies such as backup, redundancy, and failover mechanisms. Standards such as ISO 22301 are examined, along with crisis management techniques and readiness testing. The course prepares students to ensure organizational resilience in the face of disruptions.

BSC_IT33 – Knowledge Management

The course introduces the principles and technologies for transforming data into knowledge. It covers mathematical logic, relational and NoSQL databases, RDF, and triplestores. It focuses on the Semantic Web, ontologies (OWL), and knowledge graphs, as well as reasoning techniques for knowledge extraction and integration of heterogeneous data sources. The course emphasizes intelligent data representation and advanced information systems.

BSC_IT34 – Project Management in IT/IS

The course focuses on the principles and practices of project management in Information Technology and Information Systems. It includes project planning, resource management, risk analysis, progress monitoring, and evaluation of outcomes. Emphasis is placed on modern methodologies (e.g., Agile), project management tools, teamwork, and decision-making processes. The course prepares students to manage complex IT projects effectively.

BSC_IT35 – Technology Assessment

The course examines the evaluation of technology within the context of the digital society. It analyzes social, economic, environmental, political, and ethical dimensions of technological development. Methods such as cost-benefit analysis, risk analysis, multicriteria analysis, and technology forecasting are presented, with applications in areas such as artificial intelligence, big data, and digital platforms. The course promotes critical thinking about the impact of technology.

BSC_IT36 – System Paradigms

The course covers system design and architecture, requirements elicitation, and system modeling. It examines architectural frameworks and standards such as SOA, Zachman, ITIL, and COBIT, as well as testing and quality assurance practices. It also includes system integration techniques and practical applications for the development, management, and evaluation of complex information systems.

8th Semester

BSC_IT37 – Social, Professional & Ethical Issues in Computing

The course examines ethical issues related to the development and use of computing technologies. It covers topics such as privacy, security, intellectual property, and the societal impact of technology. Professional codes of ethics (e.g., ACM/IEEE) are presented, along with issues such as AI ethics and algorithmic bias. The course fosters responsible and ethical professional behavior.

BSC_IT38 – Communication for Success: Advanced Level

The course develops advanced communication skills for academic and professional environments. It includes techniques for presentations, argumentation, writing, and negotiation. Emphasis is placed on intercultural communication, effective feedback, and public speaking. The course aims to enhance students' ability to communicate clearly and persuasively in diverse contexts.

BSC_IT39 – Technology innovation and entrepreneurship

The course introduces key concepts of innovation and entrepreneurship. Students learn to identify business opportunities, develop business models (e.g., Business Model Canvas), design Minimum Viable Products (MVPs), and evaluate markets. It also covers startup funding and the presentation of business ideas (pitching). The course encourages creativity and entrepreneurial thinking in the technology sector.

BSC_IT40 – Sustainability, Computing and Green Economy

The course explores the relationship between computing and sustainability within the context of the green economy. It examines issues such as energy consumption, critical raw materials, and electronic waste (WEEE). It also highlights the positive role of technology in sustainability, including process optimization and environmental modeling. The course promotes awareness of sustainable technology practices.

BSC_IT41 – Spatial Data Technologies

The course introduces the concepts of spatial data and Geographic Information Systems (GIS). It includes the management of geospatial data (vector and raster), the use of GIS tools (e.g., QGIS), spatial analysis, and spatial databases (e.g., PostGIS). It also covers technologies such as GPS, remote sensing, and the development of web-based mapping applications. The course equips students with skills for handling and analyzing spatial information.

Thesis Project

Each undergraduate student, in order to complete their studies, is required to undertake a Thesis Project. The Thesis Project has a maximum duration of 2 academic semesters, corresponds to two compulsory courses, Thesis I and Thesis II in the 7th and 8th semesters respectively, and is equivalent to 20 ECTS credits, 5 and 15 ECTS respectively. The topics of the Thesis Projects fall within areas related to the disciplines covered by the Department of Informatics and Telematics and specifically within the research activity fields of the Department. The Thesis Project is carried out individually by each student, submitted, and graded no earlier than the eighth semester.

The purpose of the Thesis Project is for the student to engage in and delve into a contemporary field of research in information technology and its applications, combining literature research, the development and study of a system, tool, or methodology. The subject of the Thesis Project cannot solely consist of literature review. During the Thesis Project, students must utilize the knowledge and skills acquired during their studies. The Thesis Project provides students with the opportunity to develop critical and synthetic thinking on research and scientific issues and to draft a comprehensive document that fully describes the work they have conducted.

For these reasons, great importance is placed on the quality of the Thesis Projects, which aim to equip undergraduate students with significant knowledge and skills while simultaneously fostering their interest in exploring new and innovative solutions to problems. The Thesis Project serves as excellent preparation for the student's further career in the professional and research fields within the areas of Informatics.

Internship

Undergraduate students have the option to undertake an Internship (Internship Program) during their studies, which includes a series of educational processes with clear objectives and predefined evaluation strategies. This aims to provide students with work experiences and skills in the field of Informatics and Telematics, to practice the profession under supervision, and to familiarize themselves with their future duties. The Internship helps students to apply their theoretical knowledge in practice within a controlled, yet real working environment. Undergraduate

students participate in tasks and activities at Internship Providers, introduce new ideas and perspectives, while simultaneously working within the constraints of the employment providers and managing the situations and problems they encounter. The Internship also promotes the connection between the Department of Informatics and Telematics and the labor market.

Degree Requirements

Students complete their studies and are declared graduates when they have successfully passed all the courses required by their curriculum and have accumulated the necessary number of credits (240 ECTS) to obtain the degree.

The graduation date is set as the end date of the examination period of each Department. In cases where the curriculum includes a thesis, the graduation date is set as the completion date of the thesis examination of the examination period in which the student participated.

Students who have completed their studies, as mentioned above, are entitled to a certificate of completion of studies in both Greek and English.

Degree Grade Calculation

The degree grade is determined based on the following formula:

$$G = \frac{\sum_{c=1}^{N} w_c \beta_c}{\sum_{c=1}^{N} w_c}$$

where N is the total number of courses the student has successfully passed, w_c is the weight of the course c and β_c is the examination grade in that course. The weights are determined by the decision of the School of Digital and Technology Assembly. The resulting degree grade is rounded to the second decimal place and classified according to the following grading scale:

- Excellent: Grades 8.45 to 10.00
- Very Good: Grades 6.95 to 8.44
- Good: Grades 5.00 to 6.94

Infrastructure and Services

Students' Access to Electronic Services

Students of all three study cycles receive a username and password upon registration, granting them access to all electronic services provided by the University and the state. The University's Information and Network Center handles the registration of students in the University's user directory (LDAP) and then creates a password, which students can obtain from their Department's administration office or electronically in a manner determined by the Information and Network Center. The use of the username and password is strictly personal.

University students have access to various categories of services, including:

a) Basic electronic services such as email, web hosting, creation and storage of files and data in the cloud,

b) E-learning services,

c) Access to electronic resources,

d) Use of applications provided by the University for all members of the academic community.

Student Advocate - Faculty Advisor for Students with Special Educational Needs

The institution has established the roles of Student Advocate (SA) and Faculty Advisor for Students with Special Educational Needs (FASESN). Specific regulations and procedures are determined according to current legislation and the institution's internal academic regulations.

Figure 23. Library of Harokopio University.

Library and Information Center (L.I.C.)

At Harokopio University, there is a Library and Information Center that serves the scientific information needs of the academic community. Specifically for students, user training seminars are organized, and there are reading rooms, computers for searching printed or electronic materials, and lockers for storing personal items. There is also the option of automated borrowing and photocopying of non-borrowable materials, always in compliance with current copyright laws. Part of the services of the L.I.C. can be provided remotely if circumstances require it.

Student Service Center (S.S.C.)

The University operates a Student Service Center responsible for informing students about the overall functioning of the University, their rights and obligations, and the services provided by the State and the University. The S.S.C. also serves students electronically or in person. Among other things, the Student Service Center includes Student Welfare Services and the Career and Liaison Office, which supports students in their transition to the job market by providing information and advisory services for employment and further studies in Greece and abroad.

Foreign Language Teaching Center (F.L.T.C.)

The Foreign Language Teaching Center (F.L.T.C.) offers specialized foreign language courses to the program's students to ensure foreign language learning, as specified by current legislation and the University's Study Guide.

Academic Advisor

The Academic Advisor guides and supports students and is appointed as a faculty member of the Department in which they study, according to the procedure approved by the School of Science and Technology. The Academic Advisor is appointed in the first year of students' studies.

Student Mobility

Students have the right to participate in mobility programs domestically and/or abroad. Mobility programs include student transfers and/or exchanges within the framework of European programs, the European Universities initiative, bilateral agreements between domestic and foreign universities, and mobility within internal programs as per current legislation.