EPOKA UNIVERSITY | Department of Computer Engineering

ANNUAL REPORT

October 2022 – September 2023

Annual Report

October 2022 – September 2023

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A. Organization & Management

Introduction

Dr. Arban Uka
Head of Department

GENERAL

Computer Engineering covers a wide range of engineering applications from hardware, software, networking, system administration, database managements systems, etc. Computer Engineering is distinguished as being one of fastest developing area and the most required in the job market. It is related to all sciences, being able to push them forward from their current status by providing automatic control, improved computational speed and better optimization.

MISSION

The mission of the Department of Computer Engineering is to educate the students to gain an understanding of the fundamentals of science and engineering so that they can develop solutions to Computer Engineering problems and enhance their computing, engineering, and research skills. It is aimed to especially emphasize teamwork, independent and innovative thinking and leadership qualities. In particular, the Computer Engineering Program aims to:

- Train the students to have theoretical background in basic sciences and engineering and to be equipped with necessary technical skills,
- Provide practical experience which will enable students to utilize and enhance their engineering knowledge,
- Promote students' self-discipline and self-assurance and the ability to learn on their own,
- Encourage teamwork, collaboration and development of interpersonal skills,
- Motivate the students towards contributing to the progress of science and technology,
- Teach the importance of ethical behavior in social and professional life,

- Produce graduates for the engineering and the business communities who are observant, inquisitive and open to new technologies for developing better solutions,
- Produce graduates for the engineering and business communities with integrity, determination, judgment, motivation, ability and education to assume a leadership role to meet the demanding challenges of the society.
- Develop students' competency in reading, writing and oral communication,
- The vision of the Department of Computer Engineering is to be a department whose graduates are highly preferred in worldwide IT industry and to gain a leadership position in Albania and Balkans.

Study programs offered by the Department

The Department of Computer Engineering offers undergraduate and postgraduate study programs in Computer Engineering, Electronics and Digital Communication Engineering and Software Engineering. The undergraduate programs are based on the three-year bachelor system and the students graduate with Bachelor's in Computer Engineering, Electronics and Digital Communication Engineering and Software Engineering. The postgraduate study programs include Master of Science, Professional Master and PhD in Computer Engineering and Master of Science in Electronics and Communication Engineering.

B. Resources

Department Staff

Full time Academic Staff

Dr. Arban UKA

Arban Uka – holds the PhD degree in Physics from University of Texas, United States of America, Austin, 2009. He has been awarded from the Holland Research School of Molecular Sciences (HRSMC) fellow, Leiden University and University of Amsterdam, Summer 2015. Has offered courses: Electromagnetic Waves, Electromagnetic Field Theory, Numerical Analysis in the Bachelor level; Advanced Numerical Methods and Digital Image Processing in the graduate level. His current interests include i) image acquisition using portable microscopy techniques such as digital in line holography, phase contrast microscopy, and lens-free microscopy, ii) image analysis using both intensity information and machine learning approaches, iii) pattern recognition with a focus on biometrics, He uses deep learning algorithms for medical image classification, cell detection, cell counting and cell segmentation. His research interest is based on: Image acquisitions, Point of Care Microscopy, Image Analysis, Computational Imaging, Deep Learning Techniques for Image Analysis. Some of the projects that Dr. Uka has been part are Horizon 2020: PANBioRA- Personalized And/or Generalized Integrated Biomaterial Risk Assessment, EPOKA University, Project coordinator, 01/2018 – ongoing. COST Project: MULTI-modal Imaging of Forensic Science Evidence - tools for Forensic Science (MULTIFORSEE), Epoka University, Project coordinator, 09/2017 – ongoing. COST Project: Biomaterials and Advanced Physical Techniques for Regenerative Cardiology (BIONECA), EPOKA University, Project coordinator, 09/2018 – ongoing. Currently, he holds the position of Head of the Computer Engineering Department and at the same time is full – time lecturer.

Prof. Dr. Betim ÇIÇO

Prof. Betim Çiço has been graduated as a distinguish student from Polytechnic University of Tirana in Electronic Engineering and 1983 he gained PhD degree in Nuclear Physics. In 1999 he has been awarded with the title of full professor. He has been working in several institutions as below mentioned: 1971-1972, Engineer in Shijak Broadcasting. From 1972 -1998, Scientific Researcher in the Institute of Nuclear Physics in the field of nuclear electronics. 1972 - 1998 part time professor in PUT. From November 1998 -2012, full time Professor in Electronic Department at PUT, 10 years Head of Computer Engineering Section (1998 -2008) and 4 years Head of Computer Department (2008 2012). 2012- 2014 - Dean of the CST Faculty in SEEU, Tetovo, Macedonia. 2014- 2016 October full time Professor in Aleksander Xhuvani University, Elbasan, Albania. From October 2016 professor in EPOKA University (2009 - September, 2016 part-time professor in EPOKA University). During this period, Prof.Dr. ÇIÇO teaches different courses in bachelor, master and PhD study related to Electronic Systems, Digital Design, Computer Architecture, Advance Computer Architecture, Research Methodology, and Artificial Intelligence in PUT and as an invited professor in many Universities in Albania, Kosovo (Prishtina University) and Macedonia (SEEU University, Tetovo). Participation in many trainings, workshops, and scientific visits in China, Germany, France, United Kingdom, Turkey, Italy, Greece, etc. Member of more than 55 different Programmes Committee in Scientific Conferences. Supervisor of 20 PhD students. From 2007 - 121 papers in Proceedings of Conferences (IEEE, ACM, Springer Verlag, etc) and 44 papers in Scientific Journals. Member of Project Group, MoES, for the implementation of the Education Management Information System (EMIS) Component under the Transition Education Reform Project in Albania 1999 – 2001. National consultant of the World Bank in this Education Reform Project in Albania, financed by the World Bank;

Prof. Dr. Gëzim KARAPICI

Dr. Mirela ALHASANI

Dr. Mirela Alhasani (Dubali) obtained her PhD degree in 2019 from University of Sofia 'St.Kliment Ohriski' in Classic and Modern Philology. Her dissertation was an interdisciplinary case study curriculum reform of foreign languages in compatibility with the professional linguistic needs of EU market as a future target of Albanian university graduates. Dr. Alhasani was theoretically equipped with such EU and IR scientific background at her Master program at the Central European University on a full scholarship of excellence by Open Society Institute to attend the Master Program in International Relations and European Studies during time period 2003-2004. As an undergraduate student of excellence at the Foreign Language Faculty in Elbasan, she participated and was trained in curriculum design, pedagogic training and higher education management by Civic Education Project in South-eastern Europe. During this international academic-oriented project, Dr. Alhasani was trained in theories and further course designing in EU and Humanties/ Language policy. Currently, she is involved in CLIL-HET Visegrad+ project 2018-2020; in Cost Action 18209 – European network for Web-centered linguistic data science 2019-2023; Cost Action 18231 – Multi3Generation: Multi-task, Multilingual, Multi-modal Language Generation 2019-2023. She is member of the Editorial Board of The International Journal of TESOL Studies published by Faculty of Foreign Languages at Shanghai Jiao Tong University, China, member of Scientific Committee and Editorial Board of The International Conferences on ESP at University of Nis Serbia and of the Journal of Teaching. Dr. Mirela Alhasani has been teaching for 14 years at several institutions such as Tirana State University, Durres University, Visiting Lecturer at University of Sofia, and currently she is full staff member of English for Academic and Specific Purposes at Faculty of Architecture and Engineering at EPOKA University.

Dr. Carlo CIULLA

Carlo Ciulla's former academic appointments were science and technology agency fellow (STA) at the National Institute of Bioscience and Human Technology in Tsukuba – Japan (1995 - 1997), graduate student at RUTGERS and NJIT (1998 - 2002), research associate at Yale University (2002 - 2003), postdoctoral scholar at the University of Iowa (2004 – 2005), postdoctoral scholar at the Wayne State University (2005 - 2007) and assistant professor of computer science at Lane College (2007 - 2009). During the years 2009 to 2012, he had been a self-employed scholar who devoted his time to his research interests related to the development of innovative methods of signal interpolation and also to the development of educational software for students. In 2012, he joined the University of Information Science and Technology (UIST) St. Paul the Apostle, Ohrid, Republic of North Macedonia, as an assistant professor. In 2019, he joined Epoka University's Department of Computer Engineering as lecturer, associate professor.

Dr. Shkëlqim HAJRULLA

Shkëlqim Hajrulla is a lecturer of the Department of Computer Engineering since 2019. He has received his B.Sc degree in University of Tirana "Teacher of Math at High School Level`" and his M.Sc degree in Applied Mathematics at "University of Vlora" and his PhD in Water Wave Equation. Numerical Methods and Application- "University of Vlora". The courses he is teaching are: Numerical Analysis, Mathematics for Engineering, Calculus I, Differential Equations, Probability and Statistics, Basic Mathematics. His research experience is: Differential forms for water wave equations in Applied Sciences. Dr. Shkëlqim Hajrulla has been teaching from 2003.

Dr. Valmir BAME

Valmir Bame has received a B.A, M.Sc., and PhD degree in mathematics engineering from the Polytechnic University of Tirana. He is a lecturer in the department of Computer Engineering, EPOKA University starting from the 2021 academic year. The courses that he is teaching are as

follows: Calculus, Linear Algebra. He has published different articles named: “Numerical Solution for Semi Linear Hyperbolic Differential Equations”, “Numerical Solution for Semi Linear Hyperbolic Differential”, “Numerical Solution for Semi Linear Hyperbolic Differential”, “Optimizing of Damping Parameters to Suppress Oscillations in Flexible Structures”.

Dr. Florenc SKUKA

Florenc Skuka received a B.A and M.Sc. degree in computer engineering from Polytechnic University of Tirana and Epoka University respectively. Now he is a Ph.D. Student at Erciyes University, Turkey. He is an Assistant Lecturer in the Department of Computer Engineering at Epoka University since 2016. And has been a member of the research faculty since 2012. He has published articles and presented papers in International Conference on Information Technology in Jordan. His research interests lie in the area of point cloud data processing, computer vision, image fusion. He has collaborated actively with researchers in several other disciplines of computer science.

M. Sc Xhoena POLISI

Xhoena Polisi is an experienced teaching and project assistant with a demonstrated history of working in the higher education industry. Affiliated as assistant lecturer at the Computer Engineering department in EPOKA University, and as a project assistant for the PANBIORA project, funded by EU Horizon 2020 Grant, she loves teaching and research. Before this, she has been a TA at the same department and has been on the helping organizing board of different activities such as Programming Camp & Program both supported by Google, teaching fundamental basis of computers to orphan children, ACM- creation of a new online programming competition website etc. She is a strong research professional with a Master of Science focused on medical image processing and analysis through traditional and innovative AI based methods. Her master thesis entitled "Cell detections algorithms in different cell environments" was awarded as Best Thesis of the year in ICT AWARDS VII edition. She is also part of the research group NanoAlb, which focuses on current trends and research related to nanotechnology. and nanoscience. Her passion about research and algorithms is shown with different publications on related fields and she is currently pursuing a PhD degree at the same university.

M.Sc. Hashmet DURMISHI

Hashmet Durmish full time assistant lecturer in the Department of Computer Engineering since September 2020. He has finished his B.Sc. and M. Sc. Degrees in Tirana University, Natural Science Faculty 1991-1995. M.Sc. Durmishi has been teaching at several institutions such as: Physics teacher to grades 9-12 and Mathematics teacher to grades 12 between 1995-1998. Interpreter of English-Albanian and Albanian-English at "Children' Aid Direct" Foundation between April 1999 and November 1999. Interpreter to a "Solicitor Company" dealing with Political Asylum and Civil Issues in the town of Northampton, United Kingdom from 2000 till 2004. Physics teacher for "Turgut Ozal" Tirana and Durrësi Colleges and "Mehmet Akif"Boys and Girls Colleges teaching grades 9, 10, 11 and 12 from 2005 until August 2020. Assistant lecturer teaching Physics course at Epoka University from September 01 2020 and ongoing.

M. Sc Sabrina BEGAJ

Sabrina Begaj - Full time Assistant Lecturer in the Department of Computer Engineering. She holds a Master of Science degree in Computer Engineering from EPOKA University. Sabrina has been involved in education activities since 2017 and starting from 2020 she has been working as Assistant Lecturer in EPOKA University. Her research is focused on Deep Learning and Image Process

M.Sc Eriselda GOGA

Eriselda Goga full time assistant lecturer in the Department of Computer Engineering starting from 2021-2022 academic year. She received her master's degree as well as her bachelor's degree in Mathematics at the Faculty of Natural Sciences, University of Tirana. Her research interests are focused mainly on the numerical analysis of partial differential equations and in the theory of electromagnetic wave scattering.

M. Sc. Redjola MANAJ

Redjola Manaj - Full time Assistant Lecturer in the Department of Computer Engineering, Faculty of Architecture and Engineering, EPOKA University, starting from October 2021. Prior to that

she has worked as Data Analyst and has been engaged as Assistant Lecturer in Department of Mathematics, Faculty of Natural Sciences, University of Tirana since 2019. She has a Master of Science degree in Mathematics from University of Tirana, Faculty of Natural Sciences, and from July 2022 she is a PhD Student in Mathematics, where her research is focused in Elliptic Partial Differential Equations. The courses that she is teaching are: Calculus, Linear Algebra, Probability, Discrete Mathematics and Differential Equations.

M.Sc Ari GJERAZI

Ari Gjerazi – Full-time assistant lecturer in the Department of Computer Engineering, Faculty of Architecture and Engineering, EPOKA University, starting at academic year 2021-2022. Prior to that he was engaged as a Teaching Assistant from 2019-2021. He has a Bachelor of Science degree from EPOKA University and a Master of Science degree from the same institution. His work so far has covered teaching courses mostly focusing on Object Oriented Programming, Software Engineering and Database Management Systems. He has had minor involvement with the Panbiora and V-Tech projects.

M. Sc. Igli DRAÇI

Igli Draçi – is a full-time lecturer in the Department of Computer Engineering at EPOKA University where he has been since 2021. He has received his B. Sc. Degree in Business Informatics from University of Tirana and his M. Sc. Degree in Computer Engineering from EPOKA University, Tirane. His research experience and interests are mainly Data Structures & Algorithms and Medical Image Processing through Deep Learning.

Part time Academic Staff

Prof. Dr. Polikron DHOQINA

Assoc. Prof. Dr. Dhoqina is a part-time lecturer in the department of Computer Engineering at EPOKA University. From 1982- 1986- Second Level Integrated Diploma, University of Tirana, Faculty of Natural Sciences, 1990-1993- Postgraduate qualification, University of Tirana, Faculty of Natural Sciences , 1994-1997- Doctor of Science in Physics, University of Tirana, Faculty of Natural Sciences. In 2007 he was awarded with the title of Associate Professor. His working experience is as follows: Lecturer of Physics, University of Tirana, Faculty of Natural Sciences, Department of Physics, Lecturer of Physics University of Gjirokastra, Department of Physics.

Assoc.Prof.Dr. Blerina ZANAJ

Assoc. Prof. Dr. Zanaj is a part–time lecturer of the Computer Engineering Department. From 2002-2008-has finished her bachelor's degree and master's degree in Telecommunication Engineering - Polytechnic University of Tirana. In 2010-2013- he was awarded with the title of PhD in Electronics, Electrical and Telecommunication Engineering- Università Politecnicà delle Marche Dipartimento di Ingegneria dell'Informazione, Ancona, Italy. 2015-2016- Post DoctorateTraining. In 2020 she was awarded with the title of Associate professor. She works as a full-time professor in the Department of Mathematics and Informatics, Faculty of Economy and Agribusiness, Agricultural University of Tirana, Tirana, Albania since 2014.

Dr. Klaudio PEQINI:

Klaudio Peqini is a part – time lecturer in the Department of Computer Engineering. He has finished his B.Sc. and M.Sc. degree in the Department of Physics, Faculty of Natural Sciences, University of Tirana, Tirana, Albania. He hold a PhD degree in in the Department of Physics, Faculty of Natural Sciences, University of Tirana (Albania): "Modeling of the variations of the geomagnetic field" (May 2018), evaluated 97/100. He teaches different courses such as: Basics to Statistical Physics, Analytical Mechanics, Computational Physics, General Physics I

(Mechanics, Tirana and EPOKA University), General Physics III (Electromagnetism, Tirana and Epoka University), and Lecturer in Fluid dynamics. He gained fourth place in the National Physics Olympiad held on March 2008 in the Faculty of Natural Sciences. Dr. Peqini has been part of some scientific projects: 2012-2014 Participant in the project: "Study of the stability of fluid dynamic systems in cylindrical and spherical geometry", project included in the Executive Program of Scientific and Technological Cooperation between Albania and Italy, for the years 2012 – 2014. 2013-2015 Participant in the project: "Numerical experiments on the natural convection of the fluids between coaxial cylinders and concentric spheres (NUM-EXP-NAT-CONV)", a winning project of "hp-see-pilot-call-awarded- applications" (High Performance Computing in South East Europe). 2015-2017 Participant in the project: "Using ground and satellite data to study the variations of the geomagnetic field over Austria and Albania". This Project is in collaboration between University of Tirana and ZAMG (Zentrale Anstalt für Geophysik und Geodynamik), Vienna, Austria.

Dr. Igli HAKRAMA

Igli Hakrama is a lecturer under the department of Computer Engineering for 10 years now. His teaching activity has been focused on courses of Programming, Web and Software Engineering, including here also the Data Mining and System Administration courses. His research focus is on Applied Artificial Intelligence in Information Systems, Data and Process Mining, agent-based software engineering, agent-based modeling and simulation in economy. Igli has already presented in many national and international conferences, and has published many papers in international journals, all of whom are within his research focus areas.

Assoc.Prof.Dr. Blerina ZANAJ

Assoc. Prof. Dr. Zanaj is a part–time lecturer of the Computer Engineering Department. From 2002-2008-has finished her bachelor's degree and master's degree in Telecommunication

Engineering - Polytechnic University of Tirana. In 2010-2013- he was awarded with the title of PhD in Electronics, Electrical and Telecommunication Engineering- Università Politecnicà delle Marche Dipartimento di Ingegneria dell'Informazione, Ancona, Italy. 2015-2016- Post DoctorateTraining. In 2020 she was awarded with the title of Associate professor. She works as a full-time professor in the Department of Mathematics and Informatics, Faculty of Economy and Agribusiness, Agricultural University of Tirana, Tirana, Albania since 2014.

Dr. Erind BEDALLI

Dr. Erind Bedalli has received his B.Sc. degree in Computer Engineering from Hacettepe University, Ankara, and his M.Sc. degree in Informatics from University of Tirana. He completed his doctoral studies in the field of fuzzy logic and exploratory data analysis at University of Tirana in 2014. His research experience and interests are mainly in the areas of: Fuzzy Logic, Data Mining, Mathematical Modelling, Artificial Intelligence, Expert Systems and Large-Scale Computing.

Administrative Staff

Ms. Fjona TOPÇIU

Fjona Topçiu is the Coordinator of Department. She has finished her bachelor's in business informatics and master studies in Business Administration study program and since August 2020 works as Department Coordinator at Epoka University.
She exercises her duties in coordination with the Faculty Administrator and Head of Department. The Coordinator of the Department is responsible for management of the department activities with administrative character and incoming and outgoing correspondences.

Ms. Brikena HASA

Brikena Hasa is the Coordinator of Department. She has finished her Bachelor and master studies in Banking and Finance study program and since October 2021 works as Department Coordinator at Epoka University.
She exercises her duties in coordination with the Faculty Administrator and Head of Department. The Coordinator of the Department is responsible for management of the department activities with administrative character and incoming and outgoing correspondences

M.Sc. Johan NOTE

Johan Note is a graduate student currently working in EPOKA University, in the department of Computer Engineering in the position of Laboratory Specialist. He has started working there in October 2021. M.Sc. Note holds a bachelor's degree in EPOKA University in the department of Computer Engineering for Electronic and Digital Communication engineering study program. He followed his bachelor's studies during the period 2016-2019. He has received the Master of Science diploma in Electronics and Communication Engineering (2019-2021).

Finance

During this academic year the Department has been strongly supported both from internal and external funds to enrich its capacities.

-Income and various financing for **BA in Computer Engeeniernig** Study Program during the 2021-2022 academic year:

Income (in Euro)	*2021-2022*
Tution fees for and during studies	857,195
TOTAL	**857,195**

-Expenditures for **BA in Computer Engeeniernig** Study Program during the 2021-2022 academic year

	2021-2022		
Expenditures (in EURO)	Salaries	Expenditures	Investements
Tuition and other student fees	363,859	216,081	49,309
Total	**363,859**	**216,081**	**49,309**

-Income and various financing for **BA in Electronics and Communication Engeeniernig** Study Program during the 2021-2022 academic year:

Income (in Euro)	*2021-2022*
Tution fees for and during studies	302,340
TOTAL	**302,340**

-Expenditures for **BA in Electronics and Communication Engeeniernig** Study Program during the 2021-2022 academic year:

	2021-2022		
Expenditures (in EURO)	Salaries	Expenditures	Investements
Tuition and other student fees	117,719	69,908	15,953
Total	**117,719**	**69,908**	**15,953**

-Income and various financing for **BA in Software Engeeniernig** Study Program during the 2021-2022 academic year:

Income (in Euro)	*2021-2022*
Tution fees for and during studies	373,850
TOTAL	**373,850**

-Expenditures for **BA in Software Engeeniernig** Study Program during the 2021-2022 academic year:

	2021-2022		
Expenditures (in EURO)	Salaries	Expenditures	Investements
Tuition and other student fees	172,417	102,391	23,365
Total	**172,417**	**102,391**	**23,365**

-Income and various financing for **Msc in Computer Engeeniernig** Study Program during the 2021-2022 academic year:

Income (in Euro)	*2021-2022*
Tution fees for and during studies	72,798.75
TOTAL	**72,798.75**

-Expenditures for **Msc in Computer Engeeniernig** Study Program during the 2021-2022 academic year:

	2021-2022		
Expenditures (in EURO)	Salaries	Expenditures	Investements
Tuition and other student fees	47,563	28,246	6,446
Total	**47,563**	**28,246**	**6,446**

-Income and various financing for **PM in Computer Engeeniernig** Study Program during the 2021-2022 academic year:

Income (in Euro)	*2021-2022*
Tution fees for and during studies	12,655
TOTAL	**12,655**

-Expenditures for **PM in Computer Engeeniernig** Study Program during the 2021-2022 academic year:

	2021-2022		
Expenditures (in EURO)	Salaries	Expenditures	Investements
Tuition and other student fees	7,135	4,237	967
Total	**7,135**	**4,237**	**967**

-Income and various financing for **Msc in Electronics and Communication Engeeniernig** Study Program during the 2021-2022 academic year:

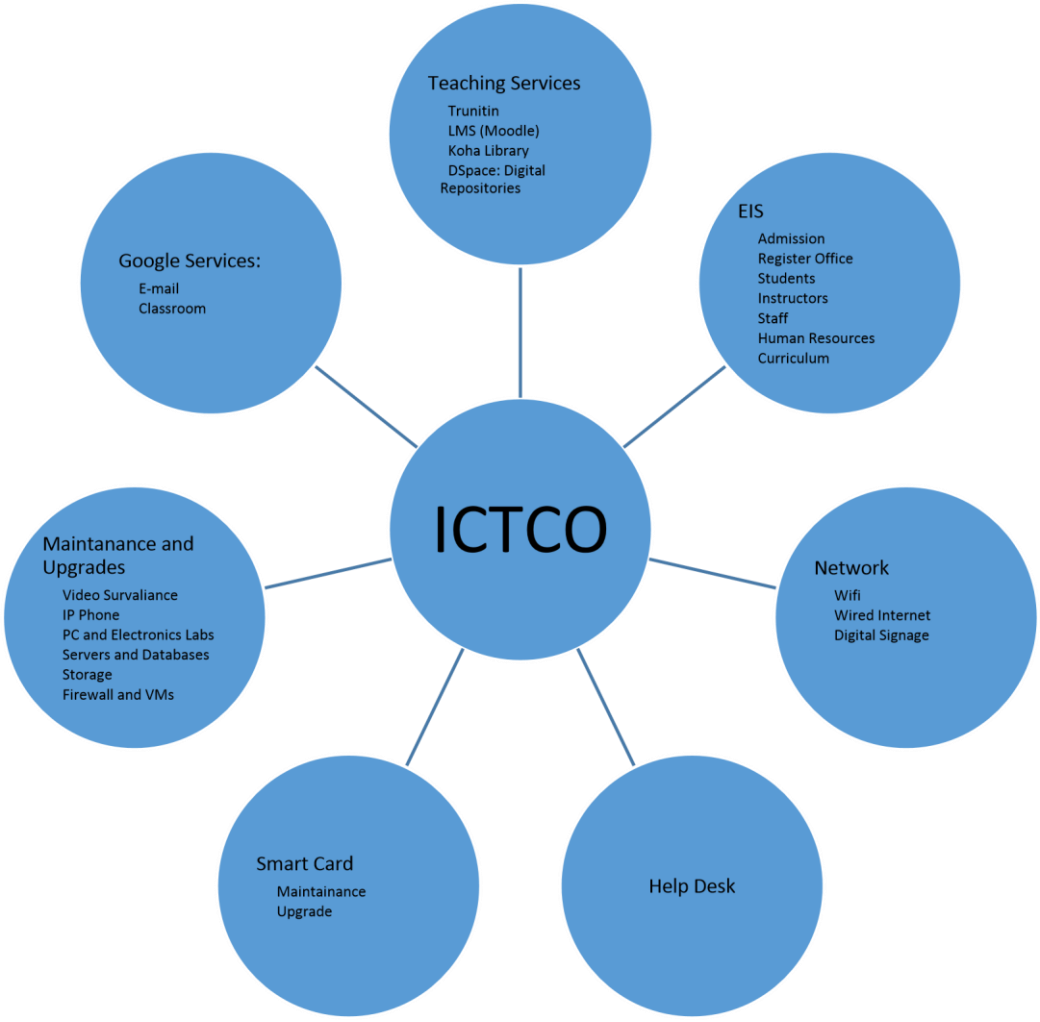
Income (in Euro)	*2021-2022*
Tution fees for and during studies	53,640
TOTAL	**53,640**

-Expenditures for **Msc in Electronics and Communication Engeeniernig** Study Program during the 2021-2022 academic year:

	2021-2022		
Expenditures (in EURO)	Salaries	Expenditures	Investements
Tuition and other student fees	28,538	16,948	3,867
Total	**28,538**	**16,948**	**3,867**

IT Resources, Physical Infrastructure and Library Resources

ICTC Office Services:



The Information and Communication Technologies Coordinating Office (ICTCO) provides informatics services needed in the University. It plans the informatics infrastructure of the University, provides its security and ensures the continuation of its functions. ICTCO works on

the project for effective, legal and extensive usage of the informatics services for students and personnel.

The Information and Communication Technologies Coordinating Office (ICTCO) provides:

Teaching Services:

- **Turnitin** software helps you to understand and avoid plagiarism and develop your understanding of how to cite sources as part of an academic argument. ICTC office manages the users and train the staff about how to use turnitin.
- **Learning Management System (LMS)** – A service based on Moodle offered for students and instructors in order to access, coordinate and organize course materials online. Students and instructor can login on LMS using the provided official email account.
- **Library Automation System (Koha) -** Koha is an open-source Integrated Library System in use today by hundreds of libraries worldwide. Koha is web based, so there is no software to install on desktop computers. Users can check the books online and reserve them via web. Its features are more than enough to manage the Epoka Library effectively and efficiently.
- **DSpace** – The institutional repository of Epoka University: DSpace is an open source repository software package typically used for creating open access repositories for scholarly and/or published digital content. The proceedings of the conferences which are organized by Epoka University can be accessed from this repository. Epoka University is the only university who has digital repository in Albania (http://repositories.webometrics.info/en/Europe/Albania). We also provide services to other international journals to publish their publications (http://dspace.epoka.edu.al/handle/1/1378) in our digital repository.

Google Services:

- **Webmail (Google account) –** Epoka University is using Google Apps for Education services and all students and academic and administrative staff are provided with an email address under epoka.edu.al domain which is a Google account. Beside official communication which is done through this email address, this account can be used for authentication to other online systems offered by university.

- **Google Classroom** – A more interactive service offered by Google as part of Google Apps for education in order to access, coordinate and organize course materials on cloud. By using Google Classroom, course materials can be integrated with other Google services where assigned users can collaborate. Students and instructors can access this service using the provided account.

Education Information System (Curriculum) – a website containing information related to study programs, curriculum and course syllabus.

Smart Card: All students and staff are provided with Smart Card identification cards. The Smart Card is put as an e-ID application at three buildings, two PC labs, one Electronics Lab, and campus gate entry turnstiles and barriers. The e-wallet application is active for staff but has not started yet for students.

Help Desk: ICTCO is also responsible for the maintenance of personnel and PC Lab computers in respect to software and hardware. Its staff monitors the personal computers within the frame of distribution of duty and authority and brings the issues to a conclusion. At the same time, ICTCO plans servers and cabling services of the University. Staff can open ticket via help.epoka.edu.al for their ICTCO related problems and follow the process from here. You can share your opinions on every subject related to information technologies and informatics with help@epoka.edu.al and you can also write your complaints and suggestions for a better campus life.

Software Opportunities

Epoka University has a subscription of Microsoft Program which is called DreamSpark. It supports technical education by providing access to Microsoft software for learning, teaching and research purposes. Epoka family members can download software through www.dramspark.com website at no cost. Epoka University also provides Office 365 accounts to all staffs and students which includes all office applications for free.

Network

Wireless: Epoka University provides wireless internet connection to all Epoka members in the campus. As ICTCO, we ensure that the wireless signal is strong and covers everywhere in campus.

Wired: Besides wireless, there are three PC labs, one Civil Engineering lab, one Electronics lab, one PhD study room, and library where PCs serve students and staffs with wired internet. In the Epoka Library and one of the classroom, there are plug and use stations next to each table where students and staff can use for wired internet and electricity for their laptops.

Digital Signage: There are four TVs in the campus, they are used to inform Epoka members about latest news and announcements.

Epoka Interactive Systems (EIS)

Recognizing the needs of campus community, Epoka has made a strategic decision to replace its aging, cumbersome, and vendor-supported student, instructors, and staff systems with a modern, nimble and effective internally built system that includes admissions, enrollment, registration, financial aid, student, instructor, and staff accounts, and advising in one platform.

EIS is developed by ICTCO at Epoka University. From the user interface, EIS is an online interactive system where users can log in using the provided official email account. It is a modular system organized by roles and respective units at the university and the information is stored in a

centralized database. All users have access to their personal information, can update general details and CV and they can manage job related tasks and activities according to their role and job position.

- **Students:** Students in their profile can access their personal information and information related to their study program. Course registration is done through the system and after that, students can view the ongoing academic activity of the registered courses during the semester. They can check attendance, exam dates, interim grades and final grades. Also in the system, they can access the program curriculum, transcript, grade calculation, weekly schedule, requests and notifications. The EIS prompts students when they are in the "warning zone" for financial or academic issues. It empowers students to create course plans to ensure timely graduation.

- **Instructors:** Academic staff including full-time and part-time lecturers, can have access to their courses assigned in the current semester and can also view previously assigned courses. Lecturers can update the syllabus, complete student attendance, assign and finalize grades. Advisor lecturers can have access to academic information of the students assigned for advisory and they can approve student course registration.

- **Coordinators:** The opening of courses according to course appointment in each semester is done by department coordinators and approved by faculty coordinators. Coordinators can monitor the academic activity of the lecturers under respective department.

- **Admissions and Registrar's Office:** Admissions Office enters all pre-registered student information and assigns scholarships. After the student has completed the registration, all the related information entered by Admissions office, is managed by Registrar's office.

- **Finance:** Finance office can manage and follow up all student financial information related to tuition fees and scholarship.

- **Human Resources:** Human resources office can manage all staff information data and assigns roles and job position for each staff.

- **Curriculum:** a website containing information related to study programs, curriculum and course syllabus.

All users have access to their personalized reports according to their roles and respective units. Faculties and units are liberated from tedious manual tasks. EIS supplies them with new and most updated information that will empower them to make informed decisions based on data.
EIS can be continuously updated with new modules according to the university needs. EIS can be accessed via: https:// eis.epoka.edu.al and users can log-in by their Epoka Mail account credentials.

Measurable indicators:

number of PC for students	128
number of PC furnished labs per students	4
number of PC for academic staff	87
number of PC for administration	53
number of printers for each one	15
number of photocopying machines for each one	15
number of head projectors	1
number of video-projectors	30
number of scanners	10

PHYSICAL INFRASTRUCTURE

Epoka University is located on the Tirana-Rinas road, on the 12th kilometer. The campus extends over a total area of 67,000 m2. The 2019-2020 academic year is being conducted regularly in the premises of two buildings with a total area of 14352 m2.

The E-building has a modern infrastructure and a central heating and cooling system. The classrooms are equipped with video projectors and smart boards that enable the normal conduct of the learning process.

On September 2013, the construction of A-Buiding the "Cultural Social Object of Epoka University" was completed. In addition to classes, there are plenty of recreational facilities for students such as cafeterias, libraries, Wi-Fi, facilities for the Student Council and student clubs, sports facilities, etc. Below are shown current picture of the building.

On October 2021, the reconstruction of "D-Buiding" was completed. In addition to classrooms, offices and lab, there are plenty of recreational facilities for students such as cafeterias, Wi-Fi, leisure facilities etc. There are also 11 staff offices and a meeting room. Below are shown current picture of the building.

Measurable indicators:

☑ Premises of the Faculty

University facilities	**Number**	**Square (m2)**
Auditorium for Lectures	8	927.42
Classes for Seminars	23	1811.87
Auditorium for promotional activities	1	128
Auditorium for course/professional practice	2	258
Laboratory for courses	4	813.3
Informatics Laboratory	4	370.7
Internet rooms	2	151.8
Library rooms	1	322
Rooms for photocopies, bookstore etc.	1	33.6
Information office for students	2	71
Corridors/halls	32	2957.4
Sports facilities	5	463
Service facilities for third parties	1	56
Facilities for student government activities	4	587

Recreational facilities like cafeteria/ fast-food/etc.	1	28
Toilet sanitary wares for students	69	402.4
Normatives m2/per one student	**9381.5m2/ 2734 = 3.43 m2/std**	
Facilities for staff:	**Number**	**Square (m2)**
Offices for the Dean/Vice-Dean	6	313
Office for the Administrator	1	25.4
Office for Vice Rector	1	31.5
Offices for the Department Coordinators	6	131.3
Offices for departments/research centers	12	328.5
Offices for the academic personnel	51	845
Office for the Finance Office	2	37
Office for the Internal Quality Assurance Unit	1	50
Meeting rooms	4	289
Premises for service personnel	17	245
Restrooms (WC) for academic personnel	39	228.1
Ratio m2 per person	**2523.8 m2/ 138 persons = 18.28**	

During the 2021-2022 academic year, the EPOKA University Campus uses for the 23 classes: (E-B31, E-B32,E-B33, E-211, E-212, E-213, E-311, E-312, E-313, A-117, A-118, A-119, A-120,A-127, A-128, A-129, A-130, A-131, D-101, D-102, D-103, D-104, D-201, D-202, D-203, D-204 Auditories: E-110, E-214, E-314 and A-005),) a conference room (E-B01), fuor computer laboratories (E-011, E-015, E-B30 and A-126), one electronic lab (E-010), one Architecture laboratory (A-120/1) and a civil engineering laboratory. There are 2 internet rooms as it is reflected in the table above, but the University offers wireless internet all over its space. The capacities used are given in the table below.

Classes used during the 2021-2022 academic year.

No.	Name of the Class	Surface (m2)	Capacity
1	E B31	60	40
2	E B32	60	40
3	E B33	60	40
4	E 211	64	36
5	E 311	63.46	40
6	E 312	81.32	48

7	A 117	165.6	60
8	A 118	165.5	60
9	A 119	138.0	45
10	A 120	110.4	35
11	A 127	72.41	56
12	A 128	73.53	56
13	A 129	73.71	56
14	A 130	72.02	56
15	A 131	72.02	56
16	D 101	72	42
17	D 102	66	42
18	D 103	50	30
19	D 104	52	30
20	D 201	72	42
21	D 202	66	42
22	D 203	50	30
23	D 204	52	30
total	**23**	**1784.47**	**1012**

Auditoriums used during the 2021-2022 academic year

No.	**Name of Auditorium**	**Surface (m^2)**	**Capacity**
1	E B01	128	99
2	E 110	130.82	136
3	E 212	81.32	72
4	E 213	81.72	72
5	E 214	154.32	150
6	E 313	81.72	70
7	E 314	154.32	134
8	A 005	145.2	70
total	**7**	**927.42**	**803**

Laboratories used during the 2021-2022 academic year

Name	Laboratories	Surface (m2)	Capacity
E 011	Computer Laboratory 2	96.64	42
E 015	Computer Laboratory 1	77.93	40
E B30	Computer Laboratory 3	123.7	47
A 126	Computer Laboratory 4	72.4	42
E 010	Electronic Laboratory	132	50
E 012	Projects Laboratory	131.54	30
A-120/1	Architecture Laboratory	27.6	12
I 001	Civil Engineering Laboratory	283	40
Total	**8**	**944.8**	**323**

During the academic year 2021-2022, four study units for architecture seminars, four computer laboratories, one electronic laboratory together with the theoretical part of the course, one architecture laboratory, one projects laboratory, and the Civil Engineering laboratory are being used for the development of the learning process. Another computer lab is under construction at D Building.

The facilities are equipped with heating-cooling system and video projectors. The construction materials and laboratory tools found in the Civil Engineering Laboratory are also being used in the teaching and research process.

EPOKA University has a conference hall with a surface of 128 m^2 and a capacity of 99 persons. The conference hall is used more for social, cultural and various national and international conferences. The hall is equipped with central heating-cooling system, video projector, sound system and two cabins for simultaneous translation. Also in the premises of the “Cultural Social Object” building is a conference hall with a surface of about 400 m^2 and a capacity of 300 persons.

LIBRARY

The EPOKA University Library, which is located on the first floor of A-Building in the Rinas Campus, was founded to support the education and research activities of the university by providing and organizing the needed documents.

With its 100-seating capacity, our library has 400 square meters area of use. Our University Library is composed of entrance, book and reading hall. In the entrance, there is a check out desk. The periodicals, including the exhibition of new arrivals, are also shelved in this section. The reading hall is equipped for students to study and to do research.

EPOKA University is a member of Balkan Libraries Union which was founded on 29 July 2009 with the participation of 10 institutions from 6 Balkan countries.

Our library collection is enriched by purchases and donations. The books to buy are chosen in accordance with the needs and requests of the students, administrative and academic staff. Under the Department of Library and Documentation, the library has a total of about 7500 printed books.

Digital Databases

EPOKA University has full membership in JSTOR, a shared digital library created in 1995 that includes more than 2,000 academic journals.

JSTOR was founded to help libraries and academic publishers transition their activities from print to digital operations, to expand access to scholarly content around the world and to preserve it for future generations.

Every member of EPOKA staff can access to JSTOR's collections by going to http://www.jstor.org/ and searching or browsing for content.

Using the Library

Our library works on the open shelf system enabling you to reach the books directly. The books in the open shelves are topically sorted in the book hall according to LC classification method. To find the book you are looking for, you should follow these steps:

1. Through the catalog search computers in the library; you can search author name, book name, and publisher, topic, or keyword areas.

2. To get the book, you can go to the shelves with the classification and location numbers of the books appearing on the screen as a result of your search.

Example of LC number for the book: "Exchange rates and international finance", Laurence S. Copeland / Financial Times, 2008 **HG 3821.C78 2008**

The first part of the LC number "**HG**" represents the category of the book by its topic. In the LC system, the first letter **H** stands for **Social Science** class. Each subsequent letter indicates next level

of sub categories of the main topic. In the given example **G** stands for **Finance**, **3821** indicates sub categories included between 3810-4000 (Foreign exchange, International finance, International monetary system), C78 indicates the first letter of authors surname, **2008** indicates book publication year.

Regulations

Students of Associate Degree, Bachelor's Degree and Master Students and academic and administrative personnel are the members of the library. They can borrow library materials in accordance with the rules.

Researchers coming from outside the university are not lent books, they are only allowed to use and copy the materials in the library. Readers in this group are requested to fill up the related form Lending Service.

Circulation Rules

Resource	**Patron**	**Loan period(days)**	**Maximum number of check-outs(items)**
Book	Pre-undergraduate/Undergraduate students	15	3
	Graduate students	15	5
	Staff	20	5
Bound Journal	Graduate students Staff	5	2
Visual/Audio Resources	Pre-undergraduate/Undergraduate students Graduate students Staff	3	3

A. The Curriculum

Undergraduate Teaching

FACULTY OF ARCHITECTURE AND ENGINEERING
DEPARTMENT OF COMPUTER ENGINEERING
3 (THREE) YEARS BACHELOR DIPLOMA IN COMPUTER ENGINEERING

First Year

First Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Lecture and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 105	Linear Algebra	A	Compulsory	3	0	0	3	3	48	0	0	77	0	125	5
CEN 109	Introduction to Algorithms & Programming	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
MTH 101	Calculus I	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
PHY 101	General Physics I	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
ENG 103	Development of R. & W. Skills In English I	D	Compulsory	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				15	4	2	21	18	240	64	32	414	0	750	30

First Year

Second Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
MTH 106	Discrete Mathematics	A	Compulsory	3	0	0	3	3	48	0	0	77	0	125	5
CEN 110	C Programming	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
MTH 102	Calculus II	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
PHY 104	General Physics II	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
ENG 104	Development of R. & W. Skills In English II	D	Compulsory	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				15	4	2	21	18	240	64	32	414	0	750	30

Second Year

Third Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 215	Object Oriented Programming	B	Compulsory	3	0	2	3	4	48	0	32	95	0	175	7
CEN 217	Electrical & Electronic Circuits	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
CEN 219	Computer Organization	B	Compulsory	2	2	0	4	3	32	32	0	86	0	150	6
MTH 207	Fundamentals of Probability	B	Compulsory	2	2	0	4	3	32	32	0	86	0	150	6
	Non Technical Elective	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				13	4	4	21	17	208	64	64	414	0	750	30

Non technical electives

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
BUS 103	Introduction to Business	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 201	Turkish I	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 203	German I	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 205	Italian I	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 207	French I	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4

Second Year

Fourth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 202	Database Management Systems	B	Compulsory	2	1	1	4	3	32	16	16	86	0	175	6

CEN 204	Digital Design	B	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
CEN 206	Data Structures	B	Compulsory	2	0	2	5	4	48	0	32	95	0	150	7
MTH 206	Numerical Analysis	B	Compulsory	4	0	0	4	4	64	0	0	86	0	150	6
	Non Technical Elective	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				15	3	3	21	18	240	48	48	414	0	750	30

Non technical electives

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
BUS 103	Introduction to Business	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 202	Turkish II	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 204	German II	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 206	Italian II	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 208	French II	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4

Third Year

Fifth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 307	Computer Networks	B	Compulsory	3	0	2	5	4	48	0	32	70	0	150	6
CEN 351	Professional Practice	D	Compulsory	0	0	0	0	0	0	0	0	128	22	150	6
CEN 311	Web Technologies and Programming	B	Compulsory	3	0	2	5	4	48	0	32	70	0	150	6
	Technical Elective	C	Elective	2	2	0	4	3	32	0	0	118	0	150	6
	Technical Elective	C	Elective	2	2	0	4	3	32	0	0	118	0	150	6
Semestral Total				10	4	4	18	14	160	0	64	504	0	750	30

Third Year

Sixth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 308	Operating Systems	B	Compulsory	3	0	2	5	4	48	0	32	70	0	150	6
CEN 302	Software Engineering	B	Compulsory	3	0	2	5	4	48	0	32	70	0	150	6
CEN 390/ CEN 399	Graduation Project/ Final Comprehensive Exam	E	Compulsory	2	2	0	4	3	32	32	0	118	0	150	6
	Technical Elective	C	Elective	2	2	0	4	3	32	32	0	118	0	150	6
	Technical Elective	C	Elective	2	0	2	4	3	32	0	32	86	0	150	6
Semestral Total				12	4	6	22	17	192	64	96	462	0	750	30

Technical Electives

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 326	Fundamentals System Administration	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 328	Programming Languages I	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 330	Parallel Programming	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 332	Simulation and Modeling	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 336	Computer Graphics	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 338	Management Information Systems	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 346	Mobile Programming	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 348	Internship	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6

CEN 350	Theory of Computation	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 352	Artificial Intelligence	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 354	Web Engineering	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 356	XML and WEB Services	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 358	Computer Graphics	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 366	Digital Data Communication	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 368	Network Security	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 370	Distributed Systems	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 374	Mobile and Wireless Networking	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 376	Data Mining	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 380	Machine Learning	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 386	Management Information Systems	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 389	Embedded Systems	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 340	Smartphone Applications	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6
CEN 309	Analysis of Algorithms	B	Elective	2	2	0	4	3	32	32	0	86	0	150	6

FACULTY OF ARCHITECTURE AND ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

3 (THREE) YEARS BACHELOR DIPLOMA IN ELECTRONICS AND DIGITAL COMMUNICATION ENGINEERING

First Year

First Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract	Lab	Total	Credits	Lect	Pract	Lab	Site W.	Other	Total	
MTH 103	Linear Algebra	A	Compulsory	3	0	0	3	3	48	0	0	77	0	125	5
CEN 109	Introduction to Algorithms & Programming	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
MTH 101	Calculus I	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
PHY 101	General Physics I	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
ENG 103	Development of Reading and Writing Skills in English I	D	Compulsory	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				15	4	2	21	18	240	64	32	414	0	750	30

First Year

Second Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
MTH 106	Discrete Mathematics	C	Compulsory	3	0	0	3	3	48	0	0	77	0	125	5
CEN 110	C Programming	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
MTH 102	Calculus II	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
PHY 104	General Physics II	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
ENG 104	Development of Reading and Writing Skills in English II	D	Compulsory	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				15	4	2	21	18	240	64	32	414	0	750	30

Second Year
Third Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Le ct.	Pract.	Lab.	Site W.	Other	Total	
ECE 201	Signals and Systems	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
ECE 203	Circuit Theory	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
CEN 219	Computer Organization	B	Compulsory	2	2	0	4	3	32	32	0	86	0	150	6
MTH 207	Fundamentals of Probability	C	Compulsory	4	0	0	4	4	64	0	0	86	0	150	6
	Non technical elective	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				15	2	4	21	18	240	32	64	414	0	750	30

Non-technical electives

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
BUS 103	Introduction to Business	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 201	Turkish I	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 203	German I	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 205	Italian I	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 207	French I	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4

Second Year

Fourth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
ECE 202	Electromagnetic Field Theory	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
ECE 204	Electronics I	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
ECE 206	Digital Electronics I	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
ECE 208	Numerical Analysis	C	Compulsory	2	2	0	4	3	32	32	0	86	0	150	6
	Non technical elective	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				13	2	6	21	17	208	32	96	414	0	750	30

Non technical electives

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
BUS 103	Introduction to Business	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 202	Turkish II	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 204	German II	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 206	Italian II	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
FL 208	French II	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4

Third Year

Fifth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
ECE 301	Electronics II	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
ECE 303	Electromagnetic Waves	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
ECE 305	Digital Communication I	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
ECE 307	Computer Networks	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
ECE 351	Professional Practice	D	Compulsory	0	0	0	0	0	0	0	0	128	22	150	6
Semestral Total				8	0	8	16	12	128	0	128	472	22	750	30

Third Year
Sixth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
ECE 302	Antennas and Propagation	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
ECE 304	Control Systems	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
ECE 306	Power Electronics	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
ECE 3xx	Technical Elective	C	Elective	2	0	2	4	3	32	0	32	86	0	150	6
ECE 390	Graduation Project	E	Compulsory	1	4	0	5	3	16	64	0	70	0	150	6
ECE 399	Final Comprehensive Exam		Compulsory	1	4	0	5	3	16	64	0	70	0	150	6
Semestral Total				9	4	8	21	15	144	64	128	414	0	750	30

Technical electives

COURSES		Compulsory /Elective	Course Type	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
ECE 310	Communication Theory	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
From CEN	Web Technologies and Programming	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 325	Telecommunication Circuits	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 318	Multimedia Signal Distribution	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 320	Computer Graphics	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 324	Computer Animation	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 326	Digital Photography	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 330	Microwaves	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 332	Introduction to Optical Fibers	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 334	Digital Data Transmission	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 336	Digital Signal Processing	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6

ECE 338	Satellite Communication	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 384	Microcontrollers	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 342	Fundamentals of Audio Engineering	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 340	Internship	Elective	C	0	0	0	0	0	0	0	0	150	0	150	6
ECE 346	Television Technique	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
CEN 308	Operating Systems	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 358	Information Theory and Coding	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 366	Introduction to Nanoscience and Nanotechnology	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
CEN 370	Distributed Systems	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
CEN 328	Programming Languages I	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 312	Digital Multimedia	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6
ECE 348	Communication Theory	Elective	C	3	0	0	3	3	48	0	0	102	0	150	6

FACULTY OF ARCHITECTURE AND ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

3 (THREE) YEARS BACHELOR DIPLOMA IN SOFTWARE ENGINEERING

First Year

First Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Lecture and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 105	Linear Algebra	A	Compulsory	3	0	0	3	3	48	0	0	77	0	125	5
CEN 109	Introduction to Algorithms & Programming	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
MTH 101	Calculus I	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
PHY 101	General Physics I	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
ENG 103	Development of R. & W. Skills In English I	D	Compulsory	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				15	4	2	21	18	240	64	32	414	0	750	30

First Year

Second Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
MTH 106	Discrete Mathematics	A	Compulsory	3	0	0	3	3	48	0	0	77	0	125	5
CEN 110	C Programming	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
MTH 102	Calculus II	A	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
SWE 101	Introduction to Software Engineering	B	Compulsory	3	2	0	5	4	48	32	0	95	0	175	7
ENG 104	Development of R. & W. Skills In English II	D	Compulsory	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				15	4	2	21	18	240	64	32	414	0	750	30

Second Year

Third Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 215	Object Oriented Programming	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
CEN 203	Database Management Systems	B	Compulsory	3	1	1	5	4	48	16	16	95	0	175	7
CEN 219	Computer Organization	C	Compulsory	2	2	0	4	3	32	32	0	86	0	150	6
MTH 207	Fundamental of Probability	A	Compulsory	2	2	0	4	3	32	32	0	86	0	150	6
	Non Technical Elective	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				13	5	3	21	17	208	80	48	414	0	750	30

Second Year

Fourth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
SWE 202	Software Modeling and Design	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
SWE 211	Programming Language Paradigms	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
CEN 206	Data Structures	B	Compulsory	3	0	2	5	4	48	0	32	95	0	175	7
CEN 311	Web Technologies and Programming	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
	Non Technical Elective	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
Semestral Total				13	0	8	21	17	208	0	128	414	0	750	30

Non technical electives

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
BUS 103	Introduction to Business	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4
BUS 114	Communication Skills	C	Elective	3	0	0	3	3	48	0	0	52	0	100	4
LAW 105	Introduction to Law	D	Elective	3	0	0	3	3	48	0	0	52	0	100	4

Third Year

Fifth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 307	Computer Networks	C	Compulsory	3	0	2	5	4	48	0	32	70	0	150	6
CEN 309	Analysis of Algorithms	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
SWE 303	Software Testing and Quality Assurance	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
CEN 376	Data Mining	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
	Technical Elective	C	Elective	2	2	0	4	3	48	32	0	86	0	100	6
Semestral Total				11	2	8	21	16	176	32	128	414	0	750	30

Third Year

Sixth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution			Epoka		Semestral Course and studying hours					ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 308	Operating Systems	B	Compulsory	3	0	2	5	4	48	0	32	70	0	150	6
SWE 302	Software Project Management	B	Compulsory	2	0	2	4	3	32	0	32	86	0	150	6
CEN XXX	Technical Elective	C	Compulsory	2	2	0	4	3	32	32	0	86	0	150	6
CEN XXX	Technical Elective	C	Compulsory	2	2	0	4	3	32	32	0	86	0	150	6
CEN 390	Graduation project/ final exam	C	Compulsory	1	4	0	5	3	16	64	0	70	0	100	6
Semestral Total				10	8	4	22	16	160	128	64	398	0	750	30

Technical electives

COURSES		Compulsory /Elective	Course Type	Weekly Course Distribution			Epoka	Semestral Course and studying hours						ECTS	
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 326	Fundamentals of System Administration	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6
CEN 328	Programming Languages I	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6
CEN 336	Computer Graphics	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6
CEN 338	Management Information Systems	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6
CEN 352	Artificial Intelligence	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6
CEN 351	Multimedia and Graphic Design	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6
CEN 366	Digital Data Communication	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6
CEN 389	Embedded Systems	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6
CEN 340	Smartphone Applications	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6
CEN 342	User Interface Design	Elective	B	2	2	0	4	3	48	0	0	77	0	125	6

Graduate Teaching

FACULTY OF ARCHITECTURE AND ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

MASTER OF SCIENCE PROGRAM IN COMPUTER ENGINEERING

FIRST YEAR

First Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution				Epoka	Semestral Lecture and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 409	Research Methods	A	Compulsory	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
Semestral Total				12	8	0	20	16	192	128	0	430	0	750	30

FIRST YEAR

Second Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution				Epoka	Semestral Course and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab	Site W.	Other	Total	
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
Semestral Total				12	8	0	20	16	192	128	0	430	0	750	30

SECOND YEAR

Third Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution				Epoka	Semestral Lecture and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 593	Graduate Project	D	Compulsory	1	9	0	10	5.5	16	144	0	215	0	375	15
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5

Semestral Total	7	13	0	20	13.5	112	208	0	430	0	750	30

SECOND YEAR

Fourth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution				Epoka	Semestral Course and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 500	Thesis	E	Compulsory	0	0	0	0	0	0	0	0	750	0	750	30
Semestral Total				0	0	0	0	0	0	0	0	750	0	750	30

The Department offers five different fields of studies:

1. Computational Mathematics
2. Theory of Computation
3. Data Management
4. Network & Security
5. Bioinformatics

A student, in order to acquire a general knowledge in the Computer Engineering area, needs to take at least one course from each field.

List of Elective courses:

COURSES		Course Type	Compulsory / Elective	Weekly Course Distribution				Epoka	Semestral Lecture and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 553	Theory of Computation	B	Elective	1	9	0	10	5.5	16	144	0	215	0	187.5	7.5
CEN 514	Randomized Algorithm	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 567	Advanced Algorithms & Data structures	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 552	Advanced Database Management System	B	Elective	1	9	0	10	5.5	16	144	0	215	0	375	7.5
CEN 415	Information Retrieval	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 592	Knowledge Management	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 571	Data Mining	B	Elective	1	9	0	10	5.5	16	144	0	215	0	375	7.5
CEN 563	Adv. Concepts in computer Networks	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5

CEN 564	Wireless Networks	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 462	Network Security	B	Elective	1	9	0	10	5.5	16	144	0	215	0	375	7.5
CEN 531	Information Security and	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
	Computer Forensics														
CEN 461	Network Programming	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 539	Nano-Science and Nano-Technology	B	Elective	1	9	0	10	5.5	16	144	0	215	0	375	7.5
CEN 565	Bioinformatics	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 555	Nano biomaterials	B	Elective	1	9	0	10	5.5	16	144	0	215	0	375	7.5
CEN 509	Tissue Engineering	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5

FACULTY OF ARCHITECTURE AND ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

MASTER OF SCIENCE IN ELECTRONICS AND COMMUNICATION ENGINEERING

First Year

First Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution				Epoka	Semestral Lecture and studying hours						ECTS
Code	Course Name			Theory	Pract	Lab	Total	Credits	Lect	Pract.	Lab	Site W.	Other	Total	
CEN 409	Research Methods	A	Compulsory	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
ECE 512	Digital Communication Systems	B	Compulsory	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
ECE xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
ECE xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
Semestral Total				12	8	0	20	16	192	128	0	430	0	750	30

First Year

Second Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution				Epoka	Semestral Course and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 545	Advanced Numerical Methods	B	Compulsory	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
ECE 520	Integrated Systems	B	Compulsory	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
ECE xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
ECE xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
Semestral Total				12	8	0	20	16	192	128	0	430	0	750	30

Second Year

Third Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution				Epoka	Semestral Lecture and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
ECE 590	Term Project	D	Compulsory	1	4	0	5	4	16	64	0	215	0	187.5	7.5
ECE xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
ECE xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
ECE xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
Semestral Total				10	10	0	20	16	160	160	0	430	0	750	30

Second Year
Fourth Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution				Epoka	Semestral Course and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
ECE 500	Thesis	E	Compulsory	0	0	0	0	0	0	0	0	750	0	750	30
Semestral Total				0	0	0	0	0	0	0	0	750	0	750	30

List of Elective courses:

Course Code	Course Name	T	P	C	ECTS
ECE 433	Introduction on to Neural Networks	3	2	4	7.5
ECE 439	Electronics for Bioengineering Applications	3	2	4	7.5
ECE 445	Advanced Optical Communication	3	2	4	7.5
ECE 464	Automatic Control Systems	3	2	4	7.5
ECE 468	Computer Vision	3	2	4	7.5
ECE 472	Special Topics in Artificial Intelligence	3	2	4	7.5
ECE 478	Industrial Electronics	3	2	4	7.5
ECE 483	Computer Architecture	3	2	4	7.5
ECE 533	Advanced Antenna Theory	3	2	4	7.5
ECE 537	Advanced Topics in Mobile Cellular Communication Systems	3	2	4	7.5
ECE 541	Design of Embedded Systems	3	2	4	7.5

FACULTY OF ARCHITECTURE AND ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

PROFESSIONAL MASTER PROGRAM IN COMPUTER ENGINEERING

FIRST YEAR

First Semester

COURSES		Course Type	Compulsory / Elective	Weekly Course Distribution				Epoka	Semestral Lecture and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN xxx	Elective	A	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	C	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
Semestral Total				12	8	0	20	16	192	128	0	430	0	750	30

FIRST YEAR

Second Semester

COURSES		Course Type	Compulsory /Elective	Weekly Course Distribution				Epoka	Semestral Lecture and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 590	Term Project	E	Compulsory	1	4	0	5	3	16	64	0	107.5	0	187.5	7.5
CEN xxx	Elective	D	Compulsory	1	4	0	5	3	16	64	0	107.5	0	187.5	7.5
CEN xxx	Elective	C	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN xxx	Elective	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
Semestral Total				8	12	0	20	14	128	192	0	430	0	750	30

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List of Elective courses:

COURSES		Course Type	Compulsory / Elective	Weekly Course Distribution				Epoka	Semestral Lecture and studying hours						ECTS
Code	Course Name			Theory	Pract.	Lab.	Total	Credits	Lect.	Pract.	Lab.	Site W.	Other	Total	
CEN 553	Theory of Computation	C	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 514	Randomized Algorithm	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 567	Advanced Algorithms & Data structures	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 552	Advanced Database Management System	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 415	Information Retrieval	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 592	Knowledge Management	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 571	Data Mining	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 563	Adv. Concepts in computer Networks	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 564	Wireless Networks	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 462	Network Security	C	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 531	Information Security and Computer Forensics	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 461	Network Programming	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 593	Nano-Science and Nano-Technology	C	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 565	Bioinformatics	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 555	Nanobiomaterials	C	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 509	Tissue Engineering	B	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 545	Advanced Numerical Methods	A	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5
CEN 535	Advanced Mathematics for Computer Science	A	Elective	3	2	0	5	4	48	32	0	107.5	0	187.5	7.5

THE CURRICULUM OF PHD IN COMPUTER ENGINEERING STUDY PROGRAM:

Year I - First Semester		**T**	**P**	**C**	**ECTS**
CEN 8xx	ELECTIVE COURSE	3	0	3	7.5
CEN 8xx	ELECTIVE COURSE	3	0	3	7.5
CEN 8xx	ELECTIVE COURSE	3	0	3	7.5
CEN 8xx	ELECTIVE COURSE	3	0	3	7.5
Total:		**12**	**0**	**12**	**30**

Year I - Second Semester		**T**	**P**	**C**	**ECTS**
CEN 8xx	ELECTIVE COURSE	3	0	3	7.5
CEN 8xx	ELECTIVE COURSE	3	0	3	7.5
CEN 8xx	ELECTIVE COURSE	3	0	3	7.5
CEN 8xx	ELECTIVE COURSE	3	0	3	7.5
Total:		**12**	**0**	**12**	**30**

Year II+III		**T**	**P**	**C**	**ECTS**
CEN 800	PhD THESIS	0	0	0	120
Total:		0	0	0	**120**

Note: **T** – Theoretical hours
P – Practical hours
C – Credits according to American System
ECTS – Credits according to ECTS System

List of elective courses:

Course Code	**Course Name**	**T**	**P**	**C**	**ECTS**
CEN 801	Special Topics in Software Engineering	3	0	3	7.5
CEN 802	Complex Systems	3	0	3	7.5
CEN 803	Software Project Management	3	0	3	7.5
CEN 804	Advanced Topics in Computer Engineering	3	0	3	7.5
CEN 805	Operating System Design	3	0	3	7.5
CEN 806	Distributed Systems	3	0	3	7.5
CEN 807	Object Oriented Software Engineering	3	0	3	7.5
CEN 809	Research Methods	3	0	3	7.5
CEN 811	Advanced Object Oriented Programming	3	0	3	7.5
CEN 813	Formal Languages & Compilers	3	0	3	7.5
CEN 814	Metaheuristics	3	0	3	7.5
CEN 815	Information Retrieval	3	0	3	7.5
CEN 816	Mobile Applications Programming	3	0	3	7.5

CEN 818	System Administration I	3	0	3	7.5
CEN 819	System Administration II	3	0	3	7.5
CEN 820	Theory of Computation	3	0	3	7.5
CEN 821	Web Engineering	3	0	3	7.5
CEN 823	XML and Web Services	3	0	3	7.5
CEN 825	E-Business and E-commerce	3	0	3	7.5
CEN 827	Directed Study I	3	0	3	7.5
CEN 828	Directed Study II	3	0	3	7.5
CEN 831	Information Security and Computer Forensics	3	0	3	7.5
CEN 833	Advanced Simulation and Modelling	3	0	3	7.5
CEN 835	Advanced Math for Computer Science	3	0	3	7.5
CEN 873	Artificial Neural Networks	3	0	3	7.5
CEN 839	Introduction to Nano-Science and Nano-Technology	3	0	3	7.5
CEN 843	Digital Image Processing	3	0	3	7.5
CEN 845	Advanced Numerical Methods	3	0	3	7.5
CEN 848	Programming Languages I	3	0	3	7.5
CEN 849	Programming Languages II	3	0	3	7.5
CEN 850	Programming Languages III	3	0	3	7.5
CEN 851	Speech Processing	3	0	3	7.5
CEN 852	Advanced Database Management Systems	3	0	3	7.5
CEN 853	Design and Analysis of Algorithms	3	0	3	7.5
CEN 855	Bioinformatics	3	0	3	7.5
CEN 856	Introduction to Cloud Computing	3	0	3	7.5
CEN 861	Network Programming	3	0	3	7.5
CEN 862	Network Security	3	0	3	7.5
CEN 864	Wireless Networks	3	0	3	7.5
CEN 865	Tissue Engineering	3	0	3	7.5
CEN 871	Data Mining	3	0	3	7.5
CEN 872	Special Topics in Artificial Intelligence	3	0	3	7.5
CEN 870	Cryptography	3	0	3	7.5
CEN 874	Fuzzy Logic	3	0	3	7.5
CEN 875	Computer Vision	3	0	3	7.5
CEN 876	Management Information Systems	3	0	3	7.5
CEN 877	Nanomaterials	3	0	3	7.5
CEN 878	Machine Learning	3	0	3	7.5
CEN 879	Randomized Algorithms	3	0	3	7.5
CEN 881	Information Theory	3	0	3	7.5
CEN 883	Computer Architecture	3	0	3	7.5
CEN 884	Design of Embedded Systems	3	0	3	7.5
CEN 885	Parallel Computing	3	0	3	7.5
CEN 886	Advanced Computer Architecture	3	0	3	7.5
CEN 887	Advanced Topics in Computer Science	3	0	3	7.5
CEN 863	Advanced Concepts in Computer Networks	3	0	3	7.5
CEN 892	Knowledge Management	3	0	3	7.5
CEN 869	Theory of Computation	3	0	3	7.5
CEN 867	Advanced Algorithms and Datastructures	3	0	3	7.5

Graduate Teaching

C. Teaching, Learning, Assessment & Research

Undergraduate Students' List of Theses

1. Marikela Gjiriti, "Cell labelling and segmentation using Machine Learning" M.Sc. Xhoena Duro
2. Rei Tamburi, "Stock Price Prediction Using Lstm" M.Sc. Xhoena Duro
3. Kevin Haxholli, "Image Noise Filtering in Microscopy Cell Images" M.Sc. Xhoena Duro
4. Andri Oshafi, "Fourier Convolution Theorem" Assoc. Prof. Dr. Carlo Ciulla
5. Brendon Laçi, "Computational Intelligence Of The Intensity-Curvature Functional:An Exploration Of The Similarity With Traditional High Pass Filters", Assoc. Prof. Dr. Carlo Ciulla.
6. Dea Mulaj, "Development and Coding Of Graphical User Interface In Java" Assoc. Prof. Dr. Carlo Ciulla.
7. Endri Muzhaqi, "An Exploratory Study of Fourier Theory and its Application to Fourier Convolution Theorem for the Verification of K-Space Filtering", Assoc. Prof. Dr. Carlo Ciulla.
8. Enxhi Logli, "Computational Intelligence of The Intensity-Curvature Functional: A Study on Structural Similarity with Traditional High Pass Filters" Assoc. Prof. Dr. Carlo Ciulla.
9. Ilva Xhaferri, "Development and Characterization Of Technology For The Implementation Of The Fourier Convolution Theorem", Assoc. Prof. Dr. Carlo Ciulla
10. Klea Kota, "The Importance of Applying Three-Dimensional Computer Animation Design in Different Fields", Assoc. Prof. Dr. Carlo Ciulla
11. Luiza Pisha, "Literature Review on The Fourier Convolution Theorem and Applications", Assoc. Prof. Dr. Carlo Ciulla
12. Nasho Themeli, "An Experimental Exploration of The Fourier Convolution Theorem", Assoc. Prof. Dr. Carlo Ciulla.

13. Sara Ranxha, “Hotel Management System”, Assoc. Prof. Dr. Carlo Ciulla
14. Kristi Çuni, “Hand Tracking Software And Potential Implementations”, M.Sc Florenc Skuka.
15. Albana Xhepi, “Implementing Vr Into Electronic Circuits Education”, M.Sc Florenc Skuka.
16. Anteo Guri, “Virtual Reality in Education”, M.Sc Florenc Skuka
17. Endi Qose, “Data Structures Vizualization in Virtual Reality” M. Sc. Florenc Skuka.
18. Alesio Goga, “Design, Implementation and Testing of a Virtual Reality Enviroment For Immersive Learning”, M. Sc. Florenc Skuka
19. Arlind Myzeqari, “House Search Engine”, Dr. Igli Hakrama
20. Klaus Kullolli, “Web Content Scanner and Blocker Application”, Dr. Igli Hakrama
21. Mario Cikalleshi, “Analysis, Design, and Implementation of a Business Online Shop and Management System”, Dr. Igli Hakrama
22. Flavio Pernoj, “A Research Study About Software Testing Techniques Usage in Albania”, Dr. Igli Hakrama
23. Xhoel Bano, “Analysis, Design and Implementation of a Digital Mental Health Platform”, Dr. Igli Hakrama
24. Ledia Leka, “Student Professional Practice Market Studentship”, Dr. Igli Hakrama
25. Amalia Agolli, “Testing and Analysis of Image Restoration Using Variational Autoencoders”, Dr. Igli Hakrama.
26. Juxhin Allaisufi, “Sign Language Recognition”, Dr. Igli Hakrama
27. Ergys Rrjolli, “Analysis, Design and Implementation of a Geospatial Issue Tracker”, Dr. Igli Hakrama.
28. Amanda Boçi, “Service Management System Case Study: “Elmed-Service”, Dr. Igli Hakrama
29. Helga Prifti, “An Application of Convolutional Neural Network with VGG19 for Emotion Recognition based on Facial Expressions”, M.Sc. Sabrina Begaj
30. Gersian Zeqaj, “Facial Emotion Recognition using VGG16 model on FER13 Dataset” M.Sc. Sabrina Begaj.
31. Gerhard Allamani, “Attendance System Using Face Recognition”, M.Sc. Ari Gjerazi
32. Gentian Elezi, “Subkingdom”, M.Sc. Ari Gjerazi

33. Vanesa Myftari, “Medical Image Segmentation using Deep Learning”, M.Sc. Igli Draçi
34. Drini Demushi, “Face Recognition”, M.Sc. Igli Draçi
35. Sindi Shima, “Online Ordering Management System” M.Sc. Igli Draçi
36. Ardit Derveni, “The Inventory Management System Analysis, Design and Implementation”, M.Sc. Igli Draçi
37. Aldi Filopati, “Decentralized Digital Voting System Using Blockchain”, M.Sc. Igli Draçi
38. Frei Kaçabani, “Team Control”, M.Sc. Igli Draçi
39. Edison Ponari, “Stock Market Price Prediction Using Machine Learning Algorithms”, M.Sc. Enea Mançellari
40. Estref Katillari, “Predicting Bank Loan Eligibility and Identifying Thefactors That Affect Our Bank Loan Eligbility Using Fuzzy Logic nd Fuzzy Clustering”, M.Sc. Enea Mançellari
41. Megi Nako, “Adversarial Attacks on Neural Networks Using Differential Evolution Algorithms”, M.Sc. Enea Mançellari
42. Tea Papa, “Adversarial Machine Learning Using Mnist and Imagenet, M. Sc. Enea Mançellari.
43. Irklida Voci, “Threat of Adversarial Attacks on Face Recognition Systems”, M.Sc. Enea Mançellari.
44. Gejsi Dervishi, “Adversarial Attacks on Electrocardiogram Examination”, M.Sc. Enea Mançellari.
45. Joni Hasimja, “Prediction of Football Players’ Market Value Using Machine Learning”, M.Sc. Enea Mançellari.
46. Zenel Hila, “Automatic Text Summarization”, M.Sc. Enea Mançellari.
47. Kevin Mamaj, “Asversarial Attacks on Autonomous Vehicle” M.Sc. Enea Mançellari.

Graduate Students’ List of Theses

MSC CEN

1. **Vule Sharka, “Cell Segmentation and Counting using U-Net architecture”, Dr. Arban Uka**

The purpose of this thesis is to create a deep learning application for solving the problem of detection the cells in some images. Artificial intelligence is becoming increasingly important in the field of biology, imagery, and medicine, as it can aid in processes that are difficult to do by humans. Image analysis tasks can be performed in a less prone to error way by introducing these algorithms, in such a way of avoiding issues with biological variance, variations in contrast or brightness, slide preparation, cell anomalies, arrangements, etc. In this work I am going to use U-Net to achieve cell segmentation, by training the neural network on our dataset of cell images.

2. **Sindi Dhima, "A survey on the roadway of cell segmentation techniques, implementation of unet for biomedical image segmentation", Dr. Arban Uka**

Cell segmentation has become an important technique in obtaining accurate and image based analysis of cells morphology that help diagnosing and determining certain conditions, especially in human bodies. The aim of this thesis is to elaborate and describe several techniques that handle the issue of cell segmentation from the early stages of the cell analysis up to modern deep learning algorithms. The paperwork conducts a detailed review of existing literature, and there is attempted to implement UNet architecture for cell segmentation. A simple custom dataset of original samples of cell images is used to feed the model and the results seem to be unsatisfactory, thus making UNet of critical use in case of customized applied datasets. The limitations of the dataset such as lack of sample images and inaccuracy of labelling tools are presented as key factors to obtained results. These features are proposed to be improved in further implementations as future work.

3. **Genta Mirku**, **"Impact of non-expert labeled datasets in the performance of U-Net in biomedical image segmentation", Dr. Arban Uka**

Image segmentation is introduced as partitioning an image into meaningful and disjointed regions offering a simplified representation of the image. It is a frontline domain of computer vision and one of the earliest problem statements considered by researchers. Despite the considerable number of available research, image segmentation remains a challenging endeavor in computer vision due to its significant technical challenges.

The complex nature of this operation has made its implementations dependent on the quality and quantity of labeled data. The imperfection of the dataset especially in biomedical imaging would lead to the misinterpretation of such images during diagnosis.

The purpose of this thesis is to make evident the deterioration of the performance of U-Net in segmenting biomedical images while using non-expert labeled datasets. Along with it, is to observe the behavior of U-Net while making certain adjustments in the datasets used and the implementation provided. Tested in three datasets, U-Net architecture behaves differently on datasets with different levels of label noise. Results from the conducted experiments have been examined from both qualitative and quantitative perspective. Nonetheless, it is worth mentioning that there exist alterations that can be applied to the dataset images prior to training phase that would contribute to a substantial improvement. However, such improvements are not sufficing, upholding so the fact that only experts' annotations would result always in satisfactory and promising results.

In addition, this thesis gives the reader a comprehensive view of the elevations of deep learning-based techniques in computer vision and in more details in medical image segmentation.

4. **Kevin Mamillo**, **"Face recognition and attendance list using Python", Dr. Arban Uka**

Face recognition is a must-have technology these days. In addition, they have various uses, such as Cell phones, etc. In this project, I recognised the face as the student attendance system, which can replace the regular paper attendance system and fingerprint attendance system. I used Python to create this project, as it is constructive in the face and other usage logs. This project is based on the main program, which detects and detects faces using the HOG algorithm with values and parameters. In addition, the subsystem is in a CSV file sheet (later, you can create an Excel spreadsheet, database integration and analysis with the deep neural network). This is integrated into the program and filled with names and face recognition time.

The system has two main sections, which are 1) Face detection with face recognition algorithm and keep updating as data is fed in. 2) When the images are uploaded to the system (i.e., by students, administrators, or anyone can upload), it is then saved as a CSV file, which we can use for deeper analysis and statistical data.

5. **Erli Asabella, "Performance analysis of information systems infrastructure for enterprises. (Albanian Postal Office)", Dr. Maaruf Ali**

VT is one of the most sought-after topics these days. Virtualization allows a single computer to run several OSs at the same time [1] VT enables businesses to run multiple services on a single server, lowering the cost of managing multiple hardware and maximizing resource utilization. Cloud computing is currently a hot topic of research in computer systems, and virtualization is the key to cloud computing.

VT reduces costs in corporate data centers by combining server applications into fewer servers in a more reliable and secure manner. Different loads running on the same platform improve management, security, and cost. Computer hardware is rapidly increasing the performance of its physical resources and as a result tends to have some resources not fully utilized and VT has overcome this problem. Maximum utilization of the computer system is made possible with the help of this technology.

There are several reasons to answer why virtualization is needed as it has several advantages both financial and managerial. There are many challenges that can arise as you develop new applications and computer systems, especially nowadays when modern hardware is available for commercial and enterprise use on a large scale. VT enables abstraction from actual hardware while also removing limits on operating a single OS on a single piece of hardware. We use methods like Iozone, Ram Speed Testing and UnixBench for measuring the performance of the systems.

6. Rebeka Kondi, “Please input thesis title here !!!!”, Dr. Maaruf Ali

With these hard times that we are living after covid, inflation but also problems like fertilizer shortage and supply of chain issues, has made everyone turn their attention to better, more affordable, faster, and organic solution almost in every field of science and not only.

The inspiration for this project was found on the BioSPRINT project, where the target reaction is the simultaneous dehydration of multiple C5 and C6 sugars to produce 5-HMF and FUR. The objective was to find machine learning (ML) models that would speed up the discovery of catalysts using high-throughput (HTP) screening techniques. Maximum activity for the conversion of complex sugar combinations is sought, with the best selectivity for the major products of interest. The three additional models used are generalised boosted regression modelling, extreme gradient boosting and boosted generalised additive models for location, scale, and shape.

The results show that XGBoost has the best performance overall. All the models performed poorly in the case of Selectivity. Another approach for this response is to apply a transformation on the

response variable. The performance of these models can be potentially improved by adding new "catalytic-informed" features, that will be engineered based on the expert knowledge about the problem.

7. **Sara Kllogjri, "Accuracy of Iris Recognition Using Trapezoidal Templates", Dr. Arban Uka**

Authentication is the process of identifying someone or something and verifying its validity. There are a lot of biometric technologies, which include finger scanning, finger vein ID, facial recognition, voice recognition, retina scanning, iris recognition etc. Being one of the most reliable methods, we have chosen to analyze iris recognition. Since it is unique, unchangeable and difficult to falsify, it is considered to be a great candidate for authentication. This process involves several steps – segmentation, normalization, encoding, matching. The quality of iris pictures noninheritable at-a-distance or below less strained imaging environments is understood to degrade the iris recognition accuracy. The periocular data is inherently embedded in such iris pictures and might be exploited to help within the iris recognition below such non-ideal situations. Our main aims in this thesis are new methods for the segmentation and encoding stages of the iris recognition using trapezoidal templates. Considering all the newly presented methods, we can say that they improve the performance of the algorithm for the CASIA database.

8. **Rea Berberi, "Analysis Of Wildfire Occurence n Australia Using Data Analysis Techniques", Dr. Julian Hoxha**

Thousands of human lives are lost every year around the globe, apart from significant damage to property, animal life, etc., due to natural disasters. This project focused on Wildfire prediction. The work has been performed on building a predictive model for wildfires in Australia during the hottest period of the year. Datasets that have been used contain data of fire activities in Australia from 2005 to 2020. The work done for this project is divided into three parts: giving a brief description of algorithms and methods that will be used for predictive models, steps that will be

followed for analyzing, preprocessing the data, and finally building the predictive model for Australian wildfires in December 2021.

This project will also cover the topics of big data, deep learning and machine learning. Multiple steps will be followed in order to build the dataset. These steps include collecting an amount of data, using different preprocessing methods and techniques to correct data inconsistencies, and filtering the data used for the following process. Regarding the predictive models, multiple useful algorithms have been included that are being used for data mining, simulation, and testing.

9. **Orald Veizi, "Keyword Extraction Using Co-Occurrence Graph Based Approach", Dr. Arban Uka**

The complexity to get relevant information for a user is very high due to increasing rate of text over the internet. To address these issues, more study has been conducted when information is gathered and text analytics, and it is the most popular research area in terms of extracting kewyords. There are many types of data regarding to the observations and analysis such as graphical data and others. The user may also produce data by using social media, Wikipedia, or any other resource. Most of the people generate their own data by Twitter (social media, considered as one of the most popular platforms for crawling the short text, because it contains 140 characters per tweet).

Keyword extraction is a process where a text is givento the computer and the computer return a set of keywordsthat recommended topical words and phrases from the contentof documents. Keyword extractionhelps the reader to understand the summary or at least the coreidea of the document without reading the whole document. Asa result, the prospect readers do not waste their valuable timesreading the irrelevant documents comprehensively. Generaly, by searching the keywords, users could find related posts toan event. Keyword extraction methods are being appliedto many areas especially when we extract keywords in the areaof information retrieval. This has a particular interest becausepeople retrieve significant information based on keywords. In this thesis, we have used agraph-based keyword extraction algorithm over four different datasets collected from Twitter on different terms. By the preprocessing of datasets through NLTK we will get more optimized data, and the co-occurrence graph also generated by this dataset. Moreover, we have alsoshown whether the study of co-occurrences allows keeping track of the structure of each text, however, it is more tedious to handle and often leads to messy visualizations.

There are many libraries there for visualization, python is giving more reliability for plotting because it provides many built-in libraries. TextRank algorithm is a graph-based keyword extraction algorithm, it follows the Google PageRank algorithm but somehow it is different from that by the words and links. TextRank calculates the score of every relevant word and by that score, we can find more important words of the corpus, further, it also finds the precision of those relevant words. Word cloud is also enhancing its popularity by the visualization, by its different look there are many word clouds are present over the internet.

The genuine data set, crawled from Twitter, provides the data for the experimental assessment of the proposed work.

10. Nikolin Majmari, "Cell Image Segmentation using U-NET", Dr. Arban Uka

Medical image processing has been a field of large interest recently. Our field of interest in this work is Medical Image Segmentation. We perform Medical Image Segmentation to extract or visualise information regrating tissues cells or organs. In this work we are trying to extract cell body from the background. This segmentation is vital as it can help extract information about cells morphology which can later be used to train another neural network for prediction if a cell is healthy or non healthy. It can also be used to predict the type of cancer. We will use a FCN to perform the segmentation. From all FCN networks we chose U-Net to perform image segmentation. U-Net has proved to be very efficient for small datasets as our dataset. In this work we trained U-Net in different ways and changed its parameters to obtain the best model. We also designed two model evaluation functions for our field of interest. In the end we present our best model of U-Net to perform Cell Image Segmentation based on our experiment set.

11. Alvi Lika, "A Comparative Study Of Two Web Programming Technologies: Angular And React", Dr. Igli Hakrama

The aim of this scientific study is to compare two of the most used Javascript framework and libraries on different metrics(Stability, Learning Curve and Javascript Integration) so the reader of this thesis can decide whether to use Angular or React for his next project.To understand the popularity of the compared frameworks data were taken from credible sources and were processed and analyzed concluding the React was the most popular in comparison between these two.To compare the scalability of data from different credible sources were processed and while both

React and Angular are very scalable, Angular comes with scalability build in by the concept of feature models making it easier for scaling.The performance was tested by building a Single Paged Application in both Angular and React. In the metrics compared Angular resulted to be faster than React. The version compared were v13.0.0 for Angular and v17.0.1 for React.The difficulty of learning was compared by studying and analysing the official documentation of both Angular and React and it was concluded that Angular with its Tour of Heroes was the easiest framework to learn.

MSC ECE

1. Frenk Topçiu "Health Patient Monitoring System", Assoc. Prof. Dr. Carlo Ciulla

Taking care of our family member health it becomes a very difficult task nowdays. We all have or at least know, an elderly family member that we are always worried about their health. In this thesis I will try to explain and demonstrate a system that can monitor health of the patient. This system will demonstrate and it will monitor the health of the patient as a routine check,for example monitoring health of an elderly patient. This system uses pulse sensor and temperature to monitor and inform about our family members health. There are five sensors in this monitoring system:
1)Temperature sensor -which measures the body temperature of the patient.
2)Pulse sensor-which measures the pulse of the patient.
3)Humidity sensor-which check the humidity in the air.
The sensors are connected to a controller and this controller is connected to the internet using GSM module to report alerts or update the stats of the patient. If the system detects any changes in pulse or the body temperature, it will alert the person that is monitoring the patient over the IoT and details and useful information about the patient in real time.
The controller, in this case ARDUINO MEGA 2560 is an open-source electronics platform based on easy-to-use hardware and software is used to analyze the different inputs that comes from pulse sensor so it can send an alert to the monitoring system.
Another very useful thing is that all the processes and all the inputs for the different sensors on the system are recorded online. We all know that privacy and confidentiality of the information is important. In my opinion, this monitoring system that I'm building is a prototype. Of course as a prototype, it will need a lot of work to be a perfect monitoring system and one of the part will be

the security of the privacy.
These records can be used later or in the feature for fully analysis and review of the patient's health condition.

By fully analysis I mean that the patient will be monitored lets say 30 days. After the monitored period, a doctor will analyze and give feedback regarding the health of the patient. IoT patient health monitoring system will effectively use the internet to track all the patient health records and stats.

2.

Albert Kopaci **"Comparison of laser and light emitting diode illumination for high resolution bright-field microscopy",** Dr. Arban Uka

Medical Imagery, the most popular and challenging imagery techniques which have been a point of interest for many studies nowadays. Light microscopy requires proper illumination to acquire gigapixel high resolution and wide field of view images at the same time. Whereas incandescent light was once the only source of illumination, nowadays specialized light sources, such as laser emitting diodes (LED), lasers or arc lamps, are now being used. Light-emitting diodes (LEDs) have evolved into a serious option for practically all types of illumination in light microscopy due to their great efficiency and brightness. They are long-lasting, require no expensive electronics, and can be switched in nanoseconds. Aside from that, they have a narrow bandwidth and are available across the UV/Vis/NIR spectrum. As a result, they seem to be the most suitable illumination for different microscopy techniques. With a color temperature spanning from 2,600 to 5,000 K, the white LED is best choice for bright-field illumination, with the added benefit of being energy efficient.

On the other hand, lasers produce dense packets of monochromatic light that are extremely collimated and coherent, resulting in a tight beam with a very low rate of expansion. The extremely pure wavelength ranges emitted by the laser have a bandwidth and phase relationship that is unequalled by tungsten-halogen or arc-discharge lamps when compared to other light sources. As a result, laser light beams can travel long distances and be expanded to span apertures or concentrated to a very small, bright spot, which reduces diffraction and maintain the light intensity. In this work we will explain in detail the differences between them using blind image quality assessments.

3. **Andi Shehaj, "PLC control of three phase induced motors", Assoc. Prof. Dr. Carlo Ciulla**

Remote control applications are very popular in today's industries and even for a long time, engineers have been focused on improving industrial output. Inverter fed induction drive systems are one of the most prevalent applications that require remote control and monitoring. The speed of the motor, as well as the forward and backward turning directions of the motor are all controlled by various types of controllers in the drive system.A Programmable Logic Controller (PLC) can be used to implement this strategy also RS485module will be used in order to achieve the remote control system.Technically, a programmable logic controller is a process control device utilized mostly in the automation industry."How does it affect in the progression of the work, electricity consumption and in the life time of the motor?" The aim of this thesis is creating a PLC with it is own softwaretogether with the VFD (Variable Frequency Drive) in order to completely automates the work of different motors at the same time by taking the information from different sensors and sending the adapted frequency to the motor, in order to have a quick and easy monitoring, less electricity consumption and increasing the life time of the motor.

4. **Nuri Seko, "Mutual Recognition Devices via Infrared Transceiver and Cloud Computing", Dr. Maaruf Ali**

Through this paper, the possible mechanism of a device that recognizes other devices in a meeting setting is discussed. The purpose of such a device is to simplify the physical human interactions during certain meetings and to help people network with one another. This functionality is achieved through the use of an infrared laser properly power rated for everyday use, internet connectivity of the sensor via microcontroller boards like Arduino Nano 33 IoT or ESP32, and the cloud integration general mechanism. The paper will mainly focus on the hardware of the whole system and the integration capability to the cloud, rather than the cloud structure itself. Reviews of the Infrared and other optical communication methods, and the specific functionality we are trying to achieve show that it should be possible for this device to be functionally implemented in meeting settings of medium to low densities. So in a conclusion, the implementation of a device with the above-mentioned functionality and mechanism is possible, but the accuracy would have to suffer due to user dependency.

5. Al'Ert Buraj, **"Embeeded Sensor Systems For Smart Shoes", Assoc. Prof. Dr. Carlo Ciulla**

The wearable technology is a promising field of research that can revolutionize the overall market of clothing. This can be done by giving the customers not just comfort and ease, but also more insight on their day-to-day activities.

The reason why these kinds of wearable technologies are being developed is because of the nowadays progress of the machine learning and artificial intelligence. Simply by wearing a piece of clothing, we can be able to receive actual data about the way we walk, run, stand and the state of our current health.

The main aim of this thesis is to explore smart shoes and the advancements that are currently being made in this rapidly growing section of wearables. The focus of this work is to create a smart device which will contain electronic chips that can be implemented inside the shoe heel counter. This will require an overall knowledge of different electronic components used such as: microcontroller, wireless interfaces, numerous sensors, and batteries.

There are two different ways that we can create and use such devices, active and passive. The main difference between them is that the passive mode does not require the usage of the batteries because it can use passive systems such as RFID tags and SAW sensors (Surface Acoustic Wave). It is in our best interest to use a passive system because by avoiding the need for batteries it can offer more energy-efficient smart shoes and, it would be the best solution for the environment and maintenance reasons compared to those with active systems.

Even though there are plenty of reasons to use a passive system, it is most likely that the different companies that will create the smart shoes, will use an active system. iv

This will happen because the number of features that a wearer wishes to have can be restricted by using a passive system, which will finally lead the market towards developing more battery-dependent wearables.

6. Stefanos Pasha, "WIRELESS SENSOR NETWORKING**", Dr. Maaruf Ali**

Since the beginning of time we have seen the first examples of wireless sensors. These wireless sensors have been our brain. Receiving and giving information through our ears, eyes, mouth, nose and even our skin. Nowadays the technology lets us use wireless communication to make our daily life easier. In this paper I talk about WSN architecture and sensor nodes which are easily distributed in case of disruption. I have used cnMaestro, a software platform which provides us secure end-to-end network control. There I have explained how does a tower(node) connects and communicates with the access points wirelessly and the configurations needed to remote control

and configure any of these slaves (access points) through the software receiving any data and host they get.

7. Tea Osmëni, "CYBERSPACE DEPENDENCY ON BUSINESS IDENTITY", Dr. Maaruf Ali

The overall image of an organization is proven by the investments made in security. As technology reaches other dimensions, so does cybersecurity.

"Continuous improvement is better than delayed perfection". Leaders and employees struggle with maturing their cyber and IT risk management practices. This happens for the fact that the speed of change in IT area continues to increase. Risk becomes more complex and far-reaching by trying to adopt modern IT delivery methods.

My thesis is conducted in a way to represent the main concerns of a cyber strategy and the critical areas of improvements. Working in various DD (Due Diligence) projects I have learnt that organizations will always face security issues, but the way organizations invest in minimizing risk, is in fact what really matters. The theoretical part covers the methodology in use; occurring problems, prevention and the right investments depending on the topology of each area within an organization, rated from lower to higher risky. Furthermore, I will cover risk management, common attacks, ransomware analysis and the practical part covering the execution of machines on Kali Linux (Hack The Box platform) OS, to gain the essence of how an attack could be conducted, for learning purposes.

8. Serxhio Shani, ".NET CORE MVC WEBAPPLICATION TO MANAGE THE COMPANY RESOURCES", DR. Julian Hoxha

We used the following technologies to create a web application:.NET Core 2.1 LTS, MVC, Entity Framework Core, Entity Framework Migrations - Code First, Razor Engine, Dependency Injection, LINQ, Repository Pattern, and so on.NET Core (pronounced "dot net core") is a Microsoft software framework that runs on all platforms and was released in 2016. (cross platform). Framework Class Library (FCL) is a huge class library that allows linguistic interoperability (each language can use code written in other languages) across many computer languages. Programs built for.NET Core run in a software environment called the Common Language Runtime (as opposed to a hardware environment) (CLR). By merging their source code

with.NET Core and other libraries, programmers create software.Microsoft also creates a largely integrated development environment.

9. **Igli Burnazi, "NANOFIBER ANALYSIS USING BRIGHTFIELD MICROSCOPY", Dr. Arban Uka**

Microscopy technology is the focus of much research today. Many reserarches are currently working on the challenge to provide alternative microscopy technology that provides the same quality as professional and expensive microscopes. In this study I have worked with bright field microscpoy technique that stands out as an alternative to nanofiber observing. Bright field microscopy is the simpliest of all the optical microscopy illumination techniques. Sample illumination transmits the white light and the contrast in the sample is caused by attenuation in dense area of the sample. The single lens microscope can capture quality images with respect to specific parameters such as magnification, field of view, contrast and working distance. The captured image contains object waves, and a high quality image is achieved by implementing a reconstruction algorithm. In this thesis for experiment and measurements real equipments are used such as LED, laser, microscope and nanofiber to monitor the zeolites that are in nanofiber.

List of Incoming & Outgoing Students

(Student Name, & Surname: Name of Home & Host University, Country, Duration of Stay)

Some text here …

Research Areas and Research Groups

The research group established by the department of Computer Engineering:

List of Publications

Below is the list of publications that the staff of Computer Engineering during 2021-2022 academic year:

Ciulla, C. (2022). Two-Dimensional Z-space Filtering Using Pulse-Transfer Function. Circuits, Systems, and Signal Processing, 1-22, publication in: Circuits, Systems, and Signal Processing, Article links https://link.springer.com/article/10.1007/s00034-022-02113-4 https://rdcu.be/cSQHN

Ciulla, C., (2022). Pulse-Transfer Function of the Intensity-Curvature Functional: Applications in Magnetic Resonance Angiography of the Human Brain, publication in: Innovation and Emerging Technologies, *formerly known as Technology*. Innovation and Emerging Technologies, *formerly known as Technology*.

"*Using Special Functions on Grünwald-Letnikov and Riemann Liouville Fractional Derivative and Fractional Integral*", T Demir, S Hajrulla, P Doğan, *An Istanbul Meeting for World Math*ematics in Istanbul.

June 21-24, 2022 "*An application through unimodular matrix for finding the solution of the System of Linear Equations*", Sh. Hajrulla[1]; Bezati L., Vasil L., Hoxha F., *An Istanbul Meeting for World Math*ematics in Istanbul - ISBN: ISBN 978-605-67964-7-0**,** pg. 265-271, http://icomath.com/index.php?target=sayfalar&id=1#primary

24th – 25th December 2021 "*A Survey and Statistical data of Math Economics Applications. International Relations as Triple Purpose*", Hajrulla Sh., Desantila H., 3rd International CEO Communication, Economics, Organization Congress CEO 2021 pg. 456-462 ISBN: 978-605-73822-0-7 http://www.ceocongress.org/files/E-Book/3.%20CEO%20E-BOOK.pdf?_t=1639949615

1th-3th December 2021, *Through Unimodular Matrix on SLE using LaTex* Istanbul. International Conference on Mathematics, Hajrulla Sh. Bezati L. Demir. T, Desantila H. (Proceedings book) pg. 45-55 http://icomath.com/index.php?target=sayfalar&id=1#primary, ISBN 978-605-67964-7-0

L. Ali, Sh. Hajrulla, N. Souliman, "*Reducing the Wireless Sensor Networks' delay by reducing program's complexity and by using parallel processing mechanism*" has been successfully reviewed and accepted for publication in VOL 6, NO 4 (2022) of European Modern Studies Journal, which will be released by the end of September, 2022. (*preprint*)

Sh. Hajrulla, A. Uka, L. Bezati, F. Hoxha.. "*Unimodular matrix on shallow water wave theory. Unimodularity through matrix method*"**,** *Journal:* New trends in Mathematical Sciences**.** NTMSCI Journal 10 No. 1, 25-31 (**2022**) Received: 25 December 2021, *Published online*: June 1, 2022 http://dx.doi.org/10.20852/ntmsci.2022.459, https://www.ntmsci.com/ntmsci/Articles

Alhasani, (Dubali) Mirela (2022), Measuring graduate students' perceptions of an Academic English Reading and Writing course during turbulent times - a case study from Albania, in et.al. James Fenton, Julio Gimenez, Katherine Mansfield, Martin Percy, Mariangela Spinillo . *International Perspectives on Teaching Academic English in Higher Education in Times of Covid-19*, Routledge (Taylor and Francis), USA

Book link https://www.routledge.com/International-Perspectives-on-Teaching-and-Learning-Academic-English-in/Fenton- Gimenez-Mansfield-Percy-Spinillo/p/book/9781032254784

Book chapter link: https://www.taylorfrancis.com/chapters/edit/10.4324/9781003283409-13/measuring-graduate-students-perceptions-academic-english-reading-writing-course-turbulent-times-case-study-albania-mirela-alhasani-dubali

Alhasani (Dubali), Mirela (2021). Chapter 4, Designing an ESP Graduate Program Based on Needs Assessment Analysis. In eds. Maria Bakti, Valéria Juhász and Tamás Erdei, *English in Higher Education: Monograph Proceedings of the International Seminar "ESP and CLIL Current Drivers of HEI Internationalization 11–12 March 2021, "*Juhász Gyula Advanced Education Publishing" Szeged University Press, Hungary (pp-123-140). ISBN 978-615-5946-37-0 (printed) ISBN 978-615-5946-38-7 (pdf)

Alhasani (Dubali), Mirela & Dimitar Vesselinov (2021). Contemporary Politics of Multilingualism and its Impact on Democratic Consolidation of an Enlarged European Union. In Dimitar Vesselinov, *Linguadidactic Perspectives*, pp 500-509. "St. Kliment Ohridski", Sofia University Press, Bulgaria BOOK ISBN 978-954-07-4982-2 www.unipress.bg

Alhasani (Dubali), Mirela & Milena Yordanova (2021). Measuring Achievement of the Formula 'Mother tongue + two'- A Need to Improve Foreign Language Proficiency in Europe? in Dimitar Vesselinov, *Linguadidactic Perspectives*, pp 559- 570, **"**St. Kliment Ohridski" Sofia University Press **,** Bulgaria BOOK ISBN 978-954-0704982-2 www.unipress.bg

Participation of Academic Staff in Academic Events

Mirela Alhasani- ICES'22 EPOKA University, Tirana. Albania

Theme: Developments and Challenges in the European Integration Process: The Role of Identity and Intercultural Communication in a Transnational Perspective

Keynote presentation: *In the case of the Bulgarian- North Macedonian linguistic dispute- national identity still matters*

The 23rd Annual Conference of the European Association for Machine Translation, Ghent, Belgium

Anabela Barreiro, José G. C. de Souza, Albert Gatt, Mehul Bhatt, Elena Lloret, Aykut Erdem, Dimitra Gkatzia, Helena Moniz, Irene Russo, Fabio Kepler, Iacer Calixto, Marcin Paprzycki, Francois Portet, Isabelle Augenstein, Mirela Dubali (Alhasani) - *Multi3Generation: Multitask, Multilingual, Multimodal Language Generation.* In Macken, Rufener, Van den Bogaert, Daems, Tezcan, Vanroy, Fonteyne, Barrault, Costa-jussà, Kemp, Pilos, Declercq, Koponen, Forcada, Scarton, Moniz (eds.) Proceedings of the 23rd Annual Conference of the European Association for Machine Translation, p. 345–346 Ghent, Belgium, June 2022

Faculty of Arts and Sciences, Maastricht University, Netherlands

Symposium "The Englishization of Higher Education; A phenomenon of glocalization?"

Projects

PANBIORA Project held final consortium meeting

Representatives from Computer Engineering Department participated in the month 48 final meeting of PANBIORA Project. After four years of successful collaboration, 17 partners of PANBIORA project met in Strasbourg, in the premises of the scientific leader of the project, Spartha Medical. PANBioRA product prototype was presented, and a demonstration of the risk radar and risk rating tool developed in the project was provided. Clinical outcomes and impacts of the project, and setting the project developments into perspective within the regulatory and policy relevant frameworks were discussed.

The "Personalised And/or Generalised Integrated Biomaterial Risk Assessment" (PANBioRA) project was conducted under the Horizon 2020 topic titled "Development of a reliable methodology for better risk management of engineered biomaterials in Advanced Therapy Medicinal Products and/or Medical Devices". PANBioRA aims at providing a comprehensive solution for the time- and cost-effective risk assessment of: i) new biomaterials
under health or disease states or ii) a given biomaterial for each patient in a personalized manner. It will standardize the evaluation of biomaterials and open the venue for pre-implantation, personalized diagnostics for biomaterial based applications. More details can be found in www.panbiora.eu

The achievements of the Project were presented by all the partners. The Department of Computer Engineering was one of the partners and their contribution consisted in: i) constructing portable microscope adaptable to microfluidics, ii) conducted image analysis using deep learning techniques, iii) implemented computational imaging algorithms to improve microscope resolution, and iv) constructed miniaturized circuit components adaptable to microfluidics. The participation of the department initially was made possible based on the prior scientific research capabilities, and at the same time it greatly contributed in the further strengthening of the internal capacities.

Support, Resources & Representation

List of Students' Internships

BA CEN

1. Ajla Hate-Primus Albania Shpk
2. Alban Xhepi- EPOKA University
3. Aldi Filopati- EPOKA University
4. Aleksia Bega- EasPay
5. Alesio Gega- EPOKA University
6. Amardo Osmani- EPOKA University
7. Anteo Guri-EPOKA University
8. Anxhelo Saraçi- Istitute of Statistics
9. Arb Koçi-Unioni Financiar SH.a
10. Arbër Sadushi- Veriflot Shpk
11. Ardit Derveni-Euro Group Shpk
12. Arlind Myzeqari- Vellezerit Hysa l.t.d
13. Arteo Shima-Trebit Electrinics Store
14. Bashkim Dakoli-Solid Group sh.p.k

15. Bora Tafa-Municipality of Tirana
16. Dario Dona-AKCESK
17. Dea Mulaj-Tetra Solution
18. Deivi Hajdari-Vivido Software
19. Dhimitri Sinjari-Banka Shqiptare
20. Drin Karkini- Primus Albania Shpk
21. Drini Demushi- ASSECO
22. Edison Ponari- IntesaSanPaolo Bank
23. Egi Jonuzaj- Attrax Shpk
24. Elvis Dervishi- Drejtoria e Pergjithshme e Policise
25. Elvis Murati-Landmark Technologies
26. Endi Qose-EPOKA University
27. Endri Kasa- SICRED sh.a
28. Endri Seferi-Deloitte Digital
29. Enkli Gjinopulli-Juri Kaca Pf
30. Eridon Çuni-Blu Imperial
31. Erisa Halipaj-AG Computers
32. Erta Tërshana-EPOKA University
33. Estia Gjyrdedi-Durres Port Authority
34. Estref Katillari-Big Media Expert
35. Fatbardha Shahollari-Dokuzi
36. Flavio Pernoj-EPOKA University
37. Frenki Ruçaj-2B Consulting
38. Gausper Duka-Central Election Commision
39. Gejsi Dervishi-EPOKA University
40. Gentian Elezi-Albanian Post
41. Gerhard Allamani-EPOKA University
42. Gersian Zeqaj-EPOKA University
43. Gersiol Zalillari-Vivido Software
44. Glent Rëmbeci-Easy Pay
45. Herta Brari-EPOKA University
46. Hysen Ndregjoni-EPOKA University
47. Inis Kryeziu- Juri Kaca Pf
48. Jasim Lika-ITWorks shpk
49. Jonel Qelemeni-EPOKA Universit
50. Joni Hasimja-Fastech sh.p.k
51. Jurgen Çela-Hasan Abazi pf
52. Kamil Ertekin-Mehmet Akif Collage
53. Keidi Sheremeti-Sali Elektrik
54. Kejsi Kostdhima-Solid Group Shpk
55. Kevin Aliko-Better shpk
56. Kevin Hoxhalli-Primius Albania shpk
57. Kevin Shehu-EPOKA University

58. Klara Hoxha -Start-up Ventures sha
59. Klaudio Gorka-Blueprint Fusion
60. Klaus Kullolli-Ikons
61. Klea Kota-Helius System Software Developing and Service
62. Luis Tepshi-Lightnet sh.p.k
63. Marikela Gjiriti-Oracle Nederland B.V
64. Mario Cikalleshi- Innovaway Albania Shpk
65. Marvis Fufi-Bledar Tandili
66. Megi Dema-Facilization Shpk
67. Megi Nako-Intesa SanPaolo Bank
68. Orgest Belba-Elite Travel Group
69. Petrika Mano-Intracom Albania
70. Rei Tamburi-Fastech
71. Revi Vreto-Albanian Business Partner Shpk
72. Romeisa Aliu-Ritech
73. Sara Ranxha-EPOKA University
74. Sindi Shima-Ikons
75. Tea Papa-EPOKA University
76. Vanesa Myftari-Gama Media Communication
77. Xhemiljana Troka-AT Consulting shpk
78. Xhesika Feto-OSHEE
79. Xhoel Bano- OTP Bank
80. Xhoi Muça-We Web Shpk
81. Xhulia Toska-AT Consulting shpk
82. Yusuf Bera Ermis -Mehmet Akif Collage
83. Zenel Hila- OSHEE Group

Participation in Academic Events

Student Best Success Stories

Our student research paper is accepted for publishing in the International Journal of Student Project Reporting.

Klejda Kumi, Regi Berisha, Xhesika Biçaku, Raziena Uruçi under the supervision of Assoc.Prof.Dr. Carlo Ciulla have recently received the acceptance notification of their paper. You may find below some details related to their work. We wish them many successes and their contribution to our department research field is an added value.

Office Holders

The department would like to first thank all the colleagues for their valuable contribution to teaching, research activities and other student related activities.

We would like to thank Mrs. Fjona TOPÇIU and Mrs. Brikena HASA for their valuable contribution as department coordinators. Their hard work and patience were essential in fulfilling all the tasks for the support and management of three bachelor programs, three master programs and one PhD program.

Acknowledgements

In addition to the Office Holders listed above, the department would like to thank the following for their collaboration to make this department offer all the facilities needed for the students.

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