

ANNUAL REPORT

Academic Year 2018/2019

In compliance with the stipulations of article 159 of Law No. 62/2007, of September 10

Approved by the Instituting Entity, on December 18, 2019

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1. INTRODUCTION

1.1. ISTEC'S MISSION

ISTEC, as a polytechnic higher education institution, teaching courses exclusively in the area of information technologies, has as its mission:

- a) To contribute to the valorization of the technological potential of the country's human resources;
- b) To provide a level of higher education oriented towards the exercise of a profession in the areas of information technology and multimedia;
- c) To stimulate intellectual and professional training, as well as the mobility of students and graduates, both nationally and internationally, namely having the European space as a reference;
- d) To contribute to the provision of services to the community, fundamentally through the development of projects, in partnership, in the area of information technologies;
- e) To implement, in departments created for the purpose, oriented research and high level professional development practices;
- f) To promote and institutionalize measures tending to the effective professional insertion of graduates;
- g) To create, maintain and promote an effective and preferential relationship with the entrepreneurial and social fabric, both nationally and in its geographical area of influence;
- h) To participate in international mobility programs, preferably in the learning area;
- i) To value and contribute to training activities for teachers, researchers and employees;
- j) To ensure the permanent updating of the syllabus and enrich the set of learning resources made available to students, namely through the use of educational multimedia and online communication and pedagogical interaction systems, with the purpose of increasing the overall quality of the teaching provided and fostering new forms of pedagogical interaction that, by optimizing the learning times of fundamental knowledge and skills, favor and stimulate students' initiative in order to create an education system based on the development of competences.

1.2. EDUCATIONAL PROJECT

The ISTEC educational project has its historical roots in the day the ITA proposed to the Ministry of Education the creation of a polytechnic higher education institution providing higher education in the area of information technology, or in areas where the importance of information technology is fundamental. The logical corollary of this assertion is the following: ISTEC will be an institution of a polytechnic nature that, regardless of diversifying its educational offer, will never leave the area of information technology. This founding trait has marked for the future the strategy, the scope and the nature of the education to be provided.

On the other hand, ISTEC's educational project has always focused on the major priority of creating professionals in the areas of information technology and multimedia, with a competence framework that would allow them to exercise a professional activity in organizations, both public and private.

Therefore, it can be said that one of the structural components of ISTEC's educational project is to dynamize a type of education that is indelibly polytechnic and oriented towards the exercise of a profession.

As for the teaching staff, it was considered that, respecting the legal framework for polytechnic higher education, it should contain a significant number of teachers with links to business life, as this would provide many of the necessary signals for the constant updating of the syllabus. On the other hand, ISTEC should dynamize, despite the difficulties, actions tending to create a set of specialists in the area of computer science and by competitive examination, not forgetting, also, the teachers with a PhD degree.

The permanent updating of the syllabus has been the cornerstone of ISTEC's educational, scientific and cultural project.

The emergence of the need for multimedia content development, virtual reality and games, the evolution in programming languages, the growing importance of network systems, the need felt by organizations in the development of "apps" using the different platforms Android, iOS and WindowsPhone, the need for virtualization processes, the growing importance of Big Data, the judicious and functional use of

Drones as useful tools to obtain data and information and the sensitive problems in the area of cryptography and computer security, require a careful, attentive and permanent updating of the syllabus that integrate the different curricular units.

As regards the connection to the social and business fabric, ISTEC has had as a central concern, the provision of services to the community, in a logic of partnership with institutions of reference, fundamentally, of national scope.

As for the students, their professional insertion is a fundamental concern. In this sense, practices have been institutionalized that allow the placement of all those who request it.

Participation in international learning programs is also a fundamental axis of the ISTEC project, namely in Erasmus program measures that include international internships.

The permanent consultation of students, both in the pedagogical council and in constant meetings with the students' association, allows an effective participation of this desideratum in the life of the institution.

The promotion of cultural extension courses, aimed both at former students and the community in general, is also part of the educational project.

The Department of Studies and Research in Information Technology and Society and the Department of Studies and Research in Educational Multimedia are responsible for promoting high-level professional development.

International relations with leading institutions in Europe have been achieved through the signing of protocols that have led to joint actions on a reciprocal basis.

The Director,

José António Carriço

2. Degree of compliance with the strategic plan and objectives established

A **Strategic Plan for the period 2015-2020** was defined and can be analyzed in detail on the ISTEC website.

This document is the result of the intersection of the perspectives of the Director of the Institute and the Management of the ITA, after hearing the opinions of the ISTEC bodies: Secretary General, Technical Scientific Council, Pedagogical Council, Internal Evaluation Committee and Student Ombudsman.

The time horizon of this plan is from December 31, 2015 to December 31, 2020. Previously, a S.W.O.T. analysis was carried out to identify ISTEC's strengths, weaknesses, opportunities and threats. Thus, it was sought to create a base scenario that allows understanding, analysis and perspective of the strategic points that are effectively important and that translate vulnerabilities or advantages.

Seminars and workshops held:

Date	Speaker	Seminar on
November 14th, 2017	Ricardo Baptista	Webmapping Building interactive maps on web pages
December 12th, 2017	Ricardo Baptista	Designing computer games by the mechanics and without code
April 19th, 2018	João Almeida	Agent-based Modeling and Simulation using NetLogo
May 15th, 2018	Jorge Mota	Industry 4.0 - The Digital Transformation of Industry and Services
December 5th, 2019	Pedro Garrido	Fiber Optics

3. Efficiency of administrative and financial management

Administrative and financial management continued to be guided by high levels of efficiency. There was a noticeable increase in productivity in the adjective areas that support the teaching of different courses. Human resources were subject to some restructuring and new staff members joined the department of customer service and communication. Financial management continued to operate with high criteria of planning and timeliness and resulted in significant efficiency gains.

4. Evolution of the equity and financial situation and sustainability of the institution

The financial results were positive, and the organization showed management efficiency and high productivity in terms of human resources.

5. Teaching staff's movement

ISTEC's faculty has been reinforced and has progressively increased its levels of qualification and specialization.

5.1. TEACHING STAFF, AT ISTEC, IN LISBON

2018/2019

Diogo Algarvio

Dulce Mourato

Gonçalo Feliciano

Gonçalo Gato

Henrique Bernardo

Henrique Bernardo

Isabel Alvarez

João Antunes

João Carneiro

João Gonçalves

Jorge Pires

José Câmara

José Neves

Lúcio Ferreira

Manuel Garimpo

Marco Costa

Mário Campaniço

Nuno Torres Mendes

Paulo Branco

Pedro Brandão

Rui Pascoal

Sandra Gama

Sérgio Pinto

Sofia Azevedo

Vítor Joaquim

5.2. TEACHING STAFF, IN COURSES LEGALLY AUTHORIZED TO OPERATE IN PORTO

António Pereira

Álvaro Magalhães

André Cruz

Fernando Pereira

Gonçalo Medeiros

Joana Carvalho

João Almeida

João Rebelo

Jorge Mota

José Vasconcelos

Luísa Orvalho

Miguel Oliveira

Paulo Monteiro

Paulo Monteiro

Pedro Brandão

Pedro Garrido

Ricardo Baptista

6. Non-teaching staff's movement

6.1. AT ISTEC IN LISBON

The total number of non-teaching staff is nineteen (19). This academic year, one more employee (graduate) was hired. All of them are full-time employees (100%).

The total number of non-teaching staff is distributed as follows by level of academic qualification:

- Graduates: 7
- University Attendance: 2
- Professional Technical Course or 12th grade: 8
- 9th year of school: 2

6.2. IN COURSES LEGALLY AUTHORIZED TO OPERATE IN PORTO

Regarding non-teaching staff, there has been an increase of 2 part-time employees in the secretariat, compared to the previous year.

Non-teaching staff in common with ISTEC-Lisbon, except for the following:

Departments	2018/19	
	Full-time	Part-time
Secretariat	3	2
Student Support and Employability Office (GAEE)	1	0
Pedagogical Coordinator	1	0

Non-teaching staff by education level

	2018/19
9th Grade	1
High School	2
Graduation	1
PhD *	1

* Led by a faculty member

7. Evolution of admissions and frequency of study cycles

7.1. AT ISTEC IN LISBON

NUMBER OF STUDENTS

	2017/2018					
	IG	RSI	DPM	DDM	LINF	LEM
1º Year	35	60	50	44	67	30
2º Year	35	68	56	57	133	62
3º Year	0	0	0	0	76	26
TOTAL	70	128	106	101	276	118

	2018/2019*								
	IG	RSI	DPM	DDM	LINF	LEM	VCC	RV	
1º Year	35	60	50	50	75	46	69	10	
2º Year	24	51	42	34	81	23	-	-	
3º Year	-	-	-	-	135	51	-	-	
TOTAL	59	111	92	84	291	120	69	10	

* Data referring to December 31, 2019

7.2. AT ISTEC, IN PORTO

NUMBER OF STUDENTS

	2017/18					2018/2019						
	LINF	LEM	DDM	DPM	RSI	LINF	LEM	DDM	DPM	RSI	IG	Pos G
1º Year	32	17	10	17	18	28	12	15	20	22	14	19
2º Year	6	7	7	12	17	26	14	8	12	17		
3º Year	11	18				9	11					
U.C	5	1				3	2					
Total	54	43	17	29	35	66	39	23	32	39	14	19

8. Evolution of academic degrees and awarded diplomas

8.1. AT ISTEC, IN LISBON

NUMBER OF DIPLOMATES

2017/18						
LINF	LEM	RSI	DPM	DDM	IG	Pos G
38	11	38	30	31	17	21

2018/2019*							
IG	RSI	DPM	DDM	LINF	LEM	VCC	RV
24	30	36	20	77	20	22	7

* Data referring to December 31, 2019

8.2. IN COURSES LEGALLY AUTHORIZED TO OPERATE AT THE PORT

NUMBER OF DIPLOMATES

2017/2018						2018/2019					
LINF	LINF	LEM	DDM	DPM	RSI	LINF	LEM	DDM	DPM	RSI	Pos G
4	4	9	7	10	16	5	1	7	11	17	12

9. Employability of graduates

Istec has adopted the procedure of obtaining information on the employability of its graduates, six months after the conclusion of the courses. Taking into account that the students have the opportunity to take exams still in December, contacts with students were only formalized in June 2019.

As in previous years, it is expected that the employability rate will again be around 100%, considering also the increasing offer in the area of Computer Science and Information and Multimedia Technologies.

10. Internationalization of the institution and number of foreign students

10.1. INTERNATIONAL MOBILITY PROGRAMS

Erasmus+ Program

This is the programme adopted by the European Union in the fields of education, training, youth (YTD) and sport for the period 2014-2020.

It is part of the Europe 2020 Strategy to foster growth and jobs and promote equality and social inclusion.

Action 1 - Learning Mobility is one of the actions of the Erasmus+ Programme 2014 -2020, whose main objective is to promote a European area in vocational education and training. Erasmus+ is the new EU programme for education, training, youth and sport which, under Action 1, ensures opportunities for learning mobility, provides opportunities for students and recent graduates to improve their skills and employability and to gain cultural awareness.

The project presents as objectives:

- Improve ISTEC's pedagogical effectiveness, creating conditions and motivating young people to successfully complete their courses;
- Create a culture of international mobility within the institution, involving the whole educational community, focusing on the importance of Lifelong Learning;
- To internationalize ISTEC, making it a known entity in the area of information technologies, on par with its European counterparts;
- To modernize and implement new teaching procedures, methods and techniques, ensuring a better transition to the labor market;

Integrate a solid and cohesive international partnership network in the area of information technologies, being part of more international projects.

In Project / Financial Contract No: 2017-1-PT01-KA103-035584 (2 grants) - One student held internship at NKEY in Italy and the other student at the Universidad Politécnica (URJC) of Madrid, Spain.

For the **Financial Contract No.: 2018-1-PT01-KA103-047081** (6 scholarships for students and 2 scholarships for teaching staff, in Job Shadowing) the following 3-month internships are prepared, still in the first quarter of 2019.

2 undergraduate students (Computer Science and Multimedia Engineering) of Istec, in Porto - Internships at Fuero Games, in Poland (Warsaw)

3 students of CTeSP of Mobile Device Development and 1 student of CTeSP of Multimedia Product Development- Internships at Rey Juan Carlos University, in Madrid

2 teachers in Job Shadowing, at CEPNET, in Barcelona, during 5 days

In inbound, we will also receive a teacher from CepNet, for a week, at Istec, in Job Shadowing format.

10.2. NUMBER OF STUDENTS WITH FOREIGN NATIONALITY AT ISTEC - LISBON

Nationality	2017/18						
	LINF	LEM	RSI	DPM	DDM	IG	Pos G
Angolan	9	1				2	6
Brazilian	3	2	1		3		1
Cape Verdean	1	1					
Guiné-Bissau	2						1
S. Tomé							3
German							
Bulgarian	1						
Hungarian	1						

Nationality	2018/2019							
	IG	RSI	DPM	DDM	LINF	LEM	VCC	RV
Angolan	2	1	-	-	-	-	2	-
Brazilian	-	-	-	2	-	-	4	-
Cape Verdean	-	-	-	-	-	1	-	-
Guiné-Bissau	-	-	-	-	-	-	-	-
S. Tomé	2	-	-	-	-	-	2	-
Spanish	-	-	-	-	1	-	-	-
Ucranian	1	-	1	3	2	-	-	-
Venezuelan	-	1	-	-	-	-	-	-

10.3. IN COURSES LEGALLY AUTHORIZED TO OPERATE AT THE PORTO

Nationality	2016/17			2017/18	2018/19
	LINF	LEM	RSI	LEM	LINF
São Tomé	1				
Brazilian					
Angolan		1	1	1	1
Mozambican		1			
Ucranian					1

11. Provision of external services and partnerships established

Regarding nationwide partnerships involving high-level professional development, the following took place:

Ministry of National Defense;

EIIA, INTELI, Siemens, EDP - Energias de Portugal, REN - Rede Elétrica Nacional;

CPLP - Community of Portuguese Speaking Countries.

As far as national partnerships are concerned, which involved providing services to the community, the following ones took place:

- FADU - Academic Federation of University Sports
- EMEL - Lisbon Municipal Mobility and Parking Company
- Lisbon City Hall's Social Action Department
- IPSS - Private Institutions of Social Solidarity

With regard to nationwide partnerships aimed at professional internships and active professional insertion, about 250 protocols were signed with private companies and public institutions.

Regarding national cooperation with higher education institutions

- a) Collaboration with ISCIA - Instituto Superior de Ciências da Informação e da Administração, in the supply of e-learning content for the Master's degree in Multimedia Communication;
- b) Collaboration with ISEC Lisbon - Instituto Superior de Educação e Ciências, in the provision of joint courses and seminars in the area of interactive digital multimedia;
- c) Collaboration with IPS - Instituto Politécnico de Santarém (Polytechnic Institute of Santarém) in the authorization of ISTEAC teachers to teach part-time in that higher education institution.

- d) Concerning cooperation with international institutions, partnerships involving the "Universidad Rey Juan Carlos" and Spanish, Italian and Polish institutions/companies have been signed for the implementation of international mobility programs under the Erasmus + program.

12. Self-evaluation and external evaluation procedures and their results

12.1. SELF-EVALUATION PROCEDURES

ISTEC regularly carries out surveys to evaluate the functioning of the institute, to measure the degree of satisfaction of the students, teaching and non-teaching staff, as well as the pedagogical evaluation of the course units in each semester.

The objective is to collect information not only from the teaching and non-teaching staff, but also from the students of both the degree courses and the CTeSP. The results are presented at meetings of the Councils (Technical-Scientific and Pedagogical) and published on ISTEC's website.

12.2. EXTERNAL EVALUATION AND ITS RESULTS

Following the visit of the A3ES - Accreditation and Evaluation Agency for Higher Education, through an external evaluation commission, in Lisbon and Porto, the courses were accredited for 5 years:

Bachelor in Multimedia Engineering (Lisbon)

Case No.: CEF/0910/27806

Degree: Bachelor's Degree

ECTS: 180,0

Decision: Accredited

Number of Years of Accreditation: 5

Publishing Date: August 23rd, 2012

Bachelor in Computer Engineering (Lisbon)

Case No.: CEF/0910/27801

Degree: Bachelor's Degree

ECTS: 180,0

Decision: Accredited

Number of Years of Accreditation: 5

Publishing Date: August 23rd, 2012

Bachelor in Multimedia Engineering (Porto)

Case No.: CEF/0910/27816

Degree: Bachelor's Degree

ECTS: 180,0

Decision: Accredited

Number of Years of Accreditation: 5

Publication Date: August 17th, 2012

Bachelor in Computer Engineering (Porto)

Case No.: CEF/0910/27811

Degree: Bachelor's Degree

ECTS: 180,0

Decision: Accredited

Number of Years of Accreditation: 5

Publication Date: August 17th, 2012