

Curriculum Vitae

Dr. José Ramón Coz Fernández

November 2018

Table of Contents

Contenido

<i>SUMMARY</i>	3
<i>PERSONAL DATA</i>	3
<i>PROFESSIONAL EXPERIENCE</i>	4
<i>EDUCATIONAL ACHIEVEMENTS</i>	6
<i>DOCTORATES</i>	6
<i>MASTERS DEGREES AND POST-GRADES</i>	7
<i>PROFESSIONAL CERTIFICATIONS</i>	8
<i>COURSES ABOUT NATO AND SECURITY IN NATO</i>	11
<i>OTHER COURSES</i>	12
<i>LANGUAGES</i>	13
<i>RESEARCHING AND PUBLICATIONS</i>	13
<i>CONFERENCES, JOURNALS AND CONGRESS</i>	13
<i>BOOKS AND CHAPTERS</i>	19
<i>UNIVERSITY RADIO PROGRAMS</i>	21
<i>RESEARCHING AND MORE LINKS RELATED</i>	21
<i>ANOTHER INFORMATION</i>	23

SUMMARY

Dr. Jose Ramon Coz finished his PhD degree in Economy in Applied Economics at the Complutense University (Madrid) (summa cum laude). As well, he finished a second PhD degree in Computer Engineering from the UNED University (Madrid).

He holds a M.S in Physics (University of Cantabria), a M.S. in Economics (Complutense University) and several graduate degrees in Telecommunications and Public Management (Polytechnic University of Madrid).

In addition, he holds more than a dozen international certifications in Information Technology. He has over twenty years of experience in the field of ICT and cybersecurity.

Currently working as Cyber Internal Auditor for the European Space Agency, and he is a researcher in the Department of Applied Economics at the Complutense University of Madrid.

He is professor at several institutions, universities and business schools.

He collaborates as a reviewer for several international journals and he is member of several committees and IT associations.

PERSONAL DATA

Name	Dr. D. JOSE RAMON COZ (PhD)
Phone	+31 71 565 57 57
E-mail	jose.ramon.coz@esa.int
Nationality	SPANISH
Date of birth	16 – 06 – 1972
Web	http://www.cozweb.es/



PROFESSIONAL EXPERIENCE

Date	FROM OCTOBER 2018 - (TODAY)
Place and Organization	EUROPEAN SPACE AGENCY (ESA). ESTEC. NOORDWIJK. NETHERLANDS
Role	CYBER INTERNAL AUDITOR
Main activity and responsibilities.	<ul style="list-style-type: none"> • My main role is established by the European Commission Cyber Policy within the Galileo Program. • Responsible for conducting audits of cyber security, including the evaluation of the level of compliance of the information security management system and implemented security measures with defined requirements, security policies in place and the appropriate safety standards, providing independent feedback on the effectiveness and efficiency of information security management system and security measures. • This role has direct reporting line to the ESA Navigation Director.
Date	FROM MARCH 2012 – SEPTEMBER 2018.
Place and Organization	NATO COMMUNICATIONS AND INFORMATION AGENCY (NCIA). BRUSSELS and THE HAGUE. Company: ISDEFE (Government's Company of the Department of Defence).
Role	SECURITY MANAGER AND AUDITOR
Main activity and responsibilities.	<ul style="list-style-type: none"> • Principal auditor of the portfolio of cybersecurity projects managed by the NATO Communications and Information Agency (NCIA). This portfolio includes projects with a budget of more than 100 M €, which are implemented in more than 30 countries and involve the development, design, implementation and management of the main cyber-capacities of NATO. This work involves the monitoring of the implementation of all projects in their technical, quality assurance, financial and contracting areas. • Responsible for the Cybersecurity Support Service in the Program Management and Integration Office (PMIC) of the NATO Communications and Information Agency (NCIA). The PMIC supports various NATO technology programs through independent auditing, risk management, configuration, change, and requirements, architectures, contractual and cost management. • <u>NATO MERIT AWARD 2013</u> received in November-13 for the work done over 20 months for the deployment of the main NATO cyber-capabilities in more than twenty countries.
Date	FROM OCTOBER 2009 TO – MARCH 2012
Place and Organization	OFFICE OF THE SECRETARY OF STATE FOR DEFENCE. Company: ISDEFE (Government's Company of the Department of Defence)
Role	CONSULTANCY AND ADVICE ON INDUSTRIAL POLICY
Main activity and responsibilities.	<ul style="list-style-type: none"> • Development, Support and Disclosure of the industrial policy of the MoD. • Participation in Working Groups supporting the Secretary of State for Defence. • Economic and Strategic studies on the Defence Industry • Management of Researching's Projects about Defence and Economy with Universities and Industries.
Date	FROM NOVEMBER 2008 TO – OCTOBER 2009
Place and Organization	GENERAL DIRECTION OF COURT RECORDS. MINISTRY OF JUSTICE. Company: ISDEFE (Government's Company of the Department of Defence)
Role	PROJECTS MANAGEMENT AND ADVISOR
Main activity and responsibilities.	<ul style="list-style-type: none"> • Project management and strategic consulting for the management of the ministry of justice in the field of information technologies. • Information systems normative and monitoring of IT best practices as COBIT, PRINCE2 or ITIL. Service level agreements and service level management. • Consultancy on the information systems acquisitions. • Provider's management and technical management of projects.

Date **FROM DECEMBER 2005 TO – NOVEMBER 2008**

Place and Organization **POLICE DATACENTER HEADQUARTER.**
Company: **ISDEFE** (Government's Company of the Department of Defence)

Role **SECURITY CONSULTANT AND PROJECTS MANAGEMENT**

Main activity and responsibilities.

- Projects Management and Consultancy in several projects.
- Consultancy on the Information Systems acquisitions.
- Information systems normative and monitoring of IT best practices as COBIT, PRINCE2 or ITIL
- Provider's management and technical management of Projects.
- Consultancy on security, risk analysis, certifications and accreditations.
- Security audits in collaboration with the CNI and CCN (cryptography national centre and intelligence national centre).
- Member of the Programme Board for the National Identification Electronic Card (DNIE Project) (200meur)
- Support for the agreements and SLAs with other organizations for the DNIE implementation.

Date **FROM MARCH 2004 TO DECEMBER 2005**

Place and Organization **AGENCY OF INFORMATION SYSTEMS AND TELECOMMUNICATIONS OF DEPARTMENT OF DEFENCE. (IGECIS, Inspección General CIS).**
Company: **ISDEFE** (Government's Company of the Department of Defence)

Role **PROJECTS MANAGEMENT**

Main activity and responsibilities.

- Technical Lead of the Continuity Plan of the CENTER OF OPERATION AND SUPPORT (CCEA, "Centro de Explotación y Apoyo") of the Department of Defence.
- Information systems normative and monitoring of IT best practices as COBIT, PRINCE2 or ITIL
- Continuity Plans, Emergency Responses, Business Impact Analysis.

Date **FROM MARCH 2003 TO MARCH 2004**

Place and Organization **AGENCY OF INFORMATION SYSTEMS AND TELECOMMUNICATIONS OF DEPARTMENT OF DEFENCE. (IGECIS, Inspección General CIS).**
Company: **ISDEFE** (Government's Company of the Department of Defence)

Role **SECURITY, ARCHITECTURE CONSULTANT**

Main activity and responsibilities.

- Consultancy on the Information Systems acquisitions.
- Information systems normative and monitoring of IT best practices as COBIT, PRINCE2 or ITIL
- Supervision of the entrance in operation of diverse information systems.
- Person in charge of the Elaboration and Diffusion of the Technical Architecture.
- Collaboration with NATO Groups in subjects related to Software Architecture.
- Collaboration with the Data Office of the Department of Defence: data policy, user's guides and Norms of Data.
- Committee Board of the Information System of the International mine-clearing Centre (CID, "Centro Internacional de Desminado").

Date **FROM MAY 2000 TO MARCH 2003**

Place and Organization **PARTNERSHIP EUROFIGHTER.**
Company: **GRUPO DE FOMENTO CONSTRUCCIONES Y CONTRATAS (FCC). DIVISION ESPELSA – STC.**

Role **SECURITY AND SOFTWARE ANALYST**

Main activity and responsibilities.

- Analyst in MPB and MDB Projects (Planning systems, Debriefing and Briefing), led by ESPELSA and formed by the Eurofighter International Partnership (Thales - English, Galileo - Italian, Dornier - German, CASA - Spanish). NATO projects Classified.
- Analyst in the Projects: MPDS (Planning of Missions for the airplanes of the Army), Modules of Load of Data for the ORION P3 and Administration of the MACOM for the Army. Classified projects, in participation with other companies as INDRA or CASA.
- Person in charge of the Certifications of Security (ITSEC).

Date **FROM NOVEMBER 1999 TO MAY 2000**
 Place and Organization **ARGENTARIA BANK.**
 Company: **ABS GROUP**
 Role **SENIOR CONSULTANCY OF INFORMATION SYSTEMS.**
 Main activity and responsibilities.

- Analysis and development of Projects of Information Systems.
- O&M support for Information Systems.
- IT Security support.
- Multidimensional databases, programming, data mining, electronic cards and UML.

Date **FROM MARCH 1998 TO NOVEMBER 1999**
 Place and Organization **CAJA ESPAÑA BANK.**
 Company: **IBV GROUP (CENTRISA)**, actually is **INDRA.**
 Role **CONSULTANCY OF INFORMATION SYSTEMS.**
 Main activity and responsibilities.

- Development of Projects of Information Systems (Java, C++, DB2 and Lotus Notes).
- O&M support for Information Systems (IBM Mainframes, OS2 and COBOL-CICS).
- Analysis and Design of the Migration Projects based on the new architecture (Java and Web applications)

Date **FROM OCTOBER 1997 TO MARCH 1998**
 Place and Organization **IDEAL OBJECTS. S.A.**
 Role **CONSULTANCY OF INFORMATION SYSTEMS.**
 Main activity and responsibilities.

- Support to big companies about Software Products: **ROGUEWAVE** Libraries of Java and C++.
- Support of **CORBA/ORBIX** and **OBJECTSTORE.**

Date **FROM MARCH 1997 TO MARCH 1998**
 Place and Organization **SPANISH INSTITUTE OF INDUSTRIAL PROMOTION**
 (IEFI, INSTITUTO ESPAÑOL DE FOMENTO INDUSTRIAL).
 Role **SUPPORT ENGINEER.**
 Main activity and responsibilities.

Technical support.
 Databases, Operative Systems, Internet, Networks.

EDUCATIONAL ACHIEVEMENTS

DOCTORATES

Date **FROM SEPTEMBER 2004 TO MAY 2011**
 University or Centre **SCHOOL OF COMPUTERS ENGINEERS. UNED. MADRID.**
 Studies **PhD in Computer Systems Engineering ITIL, CMBD, Languages Programming, Software Product Lines, Economic Models in Software Engineering, IT Security.**
 Dissertation: *“Desarrollo de un servicio de notificación de cambios en una base de datos de gestión de la configuración mediante programación generativa”*.
 Certificate **PHD IN COMPUTER SYSTEMS ENGINEERING Summa Cum Laude.**

Date **FROM NOVEMBER 2012 TO APRIL 2016**
 University or Centre **COMPLUTENSE UNIVERSITY OF MADRID.**
 Studies **PhD in Economy. Researcher in the Department of Applied Economy. Input Output Framework. Efficiency in Public Economy. Advanced Software Programming applied to Public Economy.**
 Dissertation: *“Knowledge Management Model for the Economic Impact of Public Programmes. Application to the Defense Sector”*.
 Certificate **PHD IN ECONOMY. Summa Cum Laude.**

MASTERS DEGREES AND POST-GRADES

Date	FROM SEPTEMBER 1990 TO SEPTEMBER 1995
University	UNIVERSITY OF CANTABRIA.
Studies	PHYSICS SCIENCES. ELECTRONIC AND COMPUTERS SPECIALITIES.
Certificate	MASTER'S DEGREE IN PHYSICS SCIENCES
<hr/>	
Date	FROM SEPTEMBER 2011 TO SEPTEMBER 2012
University or Centre	COMPLUTENSE UNIVERSITY (MADRID).
Studies	ECONOMY, LOGISTIC AND DEFENCE SPECIALITIES.
Certificate	MASTER'S DEGREE IN ECONOMICS NOTE: Top 20 World Ranking Masters: LINK
<hr/>	
Date	FROM SEPTEMBER 2003 TO JUNE 2005
University or Centre	CEPADE. POLYTECHNICAL UNIVERSITY OF MADRID
Studies	<ul style="list-style-type: none"> • Information Systems applied to the Public Administrations. • The model of Management of Total Quality in the Organizations • Methods of Planning and Control in the Public Administration • Design and Production of Projects in the Public Administration • Management of the Human Resources in the Administrations • Management of Technological Projects • Foundations of Quantitative Methods for the Economy
Certificate	UNIVERSITY SPECIALIST IN MANAGEMENT OF THE PUBLIC ADMINISTRATION http://www.cepade.es/formacion/Graduaciones1e.asp?anno=2005
<hr/>	
Date	FROM SEPTEMBER 2003 TO JUNE 2004
University or Centre	CEPADE. POLYTECHNICAL UNIVERSITY OF MADRID.
Studies	<ul style="list-style-type: none"> • Internet Advanced Services. • Design and Management of Databases • Management of Technological Projects. • The model of Management of Total Quality in the Organizations.
Certificate	UNIVERSITY EXPERT IN IT MANAGEMENT
<hr/>	
Date	FROM SEPTEMBER 2002 TO JUNE 2003
University or Centre	SCHOOL OF TELECOMMUNICATION ENGINEERS. POLYTECHNICAL UNIVERSITY OF MADRID
Studies	<ul style="list-style-type: none"> • Security in Networks of Telecommunications. • Systems and Communications networks TCP/IP. • Systems Distributed in Web.
Certificate	POSTGRADUATES IN SYSTEMS OF NETWORKS AND COMMUNICATIONS FOR THE SECURITY AND THE DEFENCE.
<hr/>	
Date	FROM SEPTEMBER 2001 TO SEPTEMBER 2003
School	IDE – CESEM. Instituto de Directivos de Empresa. (Institute of Company Managers). <ul style="list-style-type: none"> • 1. OO Software. 2. Systems of Aid to the Decision. 3. Computer science Security. 4. The Systems of the Information. 5. Executive Abilities. 6. Financial and Economic Management. 7. Management of Human Resources 8. Operation and Control. • 9. E-business. 10. Management of Projects. 11 Communications. • Project: “<i>Technological and Normative Model for a great Corporation</i>”.
Certificate	MASTER IN MANAGEMENT OF INFORMATION TECHNOLOGIES NOTE: Bests Masters about Technology in Spain (analysis by EL MUNDO). Ranking:2
<hr/>	

PROFESSIONAL CERTIFICATIONS

Date	MARCH 2016
University or Centre	INTERNATIONAL CLUB BPM (Business Process Management)
Studies	<ul style="list-style-type: none"> • BPM standards and good practices. • Analisis and Design using BPM • Implementing Agile applications using BPM • Operational Intelligence and IT Strategy alignment.
Certificate	INTERNATIONAL CERTIFICATION: BPM: RAD®-C
<hr/>	
Date	NOVEMEBER 2013
University or Centre	NATIONAL CYBERSECURITY AGENCY (Agencia Española de Certificaciones de Ciberseguridad- ACC)
Studies	<ul style="list-style-type: none"> • Security environment. Security of media • Systems Security. Security and Operations. • Data Security and Safety
Certificate	NATIONAL CYBERSECURITY CERTIFICATION (SECURITY MANAGEMENT)
<hr/>	
Date	NOVEMEBER 2013
University or Centre	NATIONAL CYBERSECURITY AGENCY (Agencia Española de Certificaciones de Ciberseguridad- ACC)
Studies	<ul style="list-style-type: none"> • Cryptography and Steganography. • Systems access control and authentication • Perimeter Security. Communications security • Safety in operating systems. • Security in wireless networks
Certificate	NATIONAL CYBERSECURITY CERTIFICATION (SECURITY AND IT)
<hr/>	
Date	JUNE 2010
University or Centre	APM GROUP
Studies	<ul style="list-style-type: none"> • ICT Services Strategy. Design of ICT Services • Transition from ICT Services. • ICT Services Operation • Continuous Improvement. • New ISO 20000 and ITIL V3.
Certificate	ITIL FOUNDATION V3 BRIDGE
<hr/>	
Date	JULY 2010
University or Centre	SPANISH PROFESSIONAL ASSOCIATION OF PRIVACY
Studies	<ul style="list-style-type: none"> • Legal concepts. LOPD. • Technical on privacy. • Regulatory spheres. • Administrative procedures for data protections.
Certificate	ACP CONSULTANT
<hr/>	
Date	SEP 2010
University or Centre	ISACA (Information Systems Audit and Control Association).
Studies	<ul style="list-style-type: none"> • Risk Identification, Assessment and Evaluation • Risk Response and Monitoring • IS Control Design and Implementation • IS Control Monitoring and Maintenance
Certificate	CERTIFIED IN RISK AND INFORMATION SYSTEMS CONTROL – IT (CRISC)

Date	OCT 2009. NOV 2013 (RENEW).
University or Centre	OPEN GROUP
Studies	<ul style="list-style-type: none"> • Architecture Development Methods • Architecture Content Framework • Enterprise Continuum & Tools • Foundation Architecture - TRM and III-RM • Architecture Capability Framework
Certificate	TOGAF V8 CERTIFIED
<hr/>	
Date	SEP 2009
University or Centre	APMG (AMP Group).
Studies	<ul style="list-style-type: none"> • Use of Managing Successful Programmes (MSP) • Programme Management: profiles, documentation, processes, activities, and techniques. • Transformational Flow in programmes. • Programme Office Management
Certificate	MSP PRACTITIONER
<hr/>	
Date	SEP 2009
University or Centre	APMG (AMP Group).
Studies	<ul style="list-style-type: none"> • Managing Successful Programmes (MSP) Theory: Principles and Themes. • Programme Management Theory: profiles, documentation, processes, and activities. • Transformational Flow Theory.
Certificate	MSP FOUNDATIONS
<hr/>	
Date	JUL 2009
University or Centre	ISACA (Information Systems Audit and Control Association).
Studies	<ul style="list-style-type: none"> • How IT management issues are affecting organizations • The need for a control framework driven by the need for IT Governance • How COBIT meets the requirement for an IT Governance Framework • How COBIT is used with other standards and best practices • The COBIT Framework and all the components of COBIT • How to apply COBIT in a practical situation
Certificate	COBIT FOUNDATIONS
<hr/>	
Date	DEC 2008
University or Centre	ISACA (Information Systems Audit and Control Association).
Studies	<ul style="list-style-type: none"> • Strategic Alignment. Value Delivery • Risk Management. Resource Management • Performance Measurement
Certificate	CERTIFIED IN THE GOVERNANCE OF ENTERPRISE IT (CGEIT)
<hr/>	
Date	JUN 2008
University or Centre	APMG (AMP Group).
Studies	<ul style="list-style-type: none"> • Process Model Detailed of PRINCE2 (Project In Control Environments). • Components in Project Management with PRINCE2 • Technical Tools for Project Management with PRINCE2 • Project Management Templates with PRINCE2. PRINCE2 in projects
Certificate	PRINCE2 PRACTITIONER
<hr/>	
Date	MARCH 2008

University or Educational Centre Studies	EXIN (Examination Institute for Information Science) <ul style="list-style-type: none"> • Service Desk. Configuration Control • Problem Management, Changes Control. Release Management. • Availability, Capacity Management, Continuity • Financial Management and Service Level Management • Providers Management and Client Management
Certificate	ISO 20000 FOUNDATIONS
Date	OCT 2007
University or Educational Centre Studies	SOFTWARE ENGINEERING INSTITUTE (SEI) <ul style="list-style-type: none"> • CMM (Common Maturity Model)
Certificate	CMMI FOUNDATIONS
Date	MAY 2007
University or Educational Centre Studies	APMG (AMP Group). <ul style="list-style-type: none"> • Process Model of PRINCE2 (Project In Control Environments) • Components in Project Management with PRINCE2 • Technical Tools for Project Management with PRINCE2
Certificate	PRINCE2 FOUNDATIONS
Date	DECEMBER 2006
University or Educational Centre Studies	ISACA (Information Systems Audit and Control Association). <ul style="list-style-type: none"> • Information security governance • Risk management. Information security program management • Information security management. Response management
Certificate	CERTIFIED INFORMATION SECURITY MANAGER (CISM). ANSI (ISO/IEC 17024).
Date	DECEMBER 2005
University or Educational Centre Studies	ISACA (Information Systems Audit and Control Association). <ul style="list-style-type: none"> • IS Audit Process IT Governance • Systems and Infrastructure Lifecycle Management • IT Service Delivery and Support. Protection of Information Assets • Business Continuity and Disaster Recovery
Certificate	CERTIFIED INFORMATION SYSTEMS AUDITOR (CISA). ANSI (ISO/IEC 17024).
Date	FROM JUNE 2005 TO DECEMBER 2005
University or Educational Centre Studies	EXIN (Examination Institute for Information Science) <ul style="list-style-type: none"> • Service Desk. Configuration Control • Problems Management. Changes Control • Release Management • Availability and Capacity Management. Continuity • Financial Management and Service Level Management
Certificate	ITIL FOUNDATIONS
Date	FROM FEBRUARY TO JUNE 2005
University or Educational Centre Studies	APPLUS, Certification Technological Centre. <ul style="list-style-type: none"> • ISO 17799. • SGSI UNE 71502 / BS7799-2. • Risk Analysis. Continuity Plans.
Certificate	EXPERT IN IMPLANTATION OF SYSTEMS OF MANAGEMENT OF THE SECURITY OF THE INFORMATION

COURSES ABOUT DEFENCE AND SECURITY

Date	FROM FEBRUARY 2015 TO JANUARY 2018
University or Centre	NATO Communications and Information Agency (NCIA), NATO Education and Training Facilities, NATO Centres of Excellences and other NATO entities.
Studies	COURSES ABOUT SECURITY AND IT SECURITY IN THE DEFENCE ENVIRONMENT
Certificate(s)	<ul style="list-style-type: none"> ○ Border Security. Background information and general principles of the Schengen Area. NATO Joint Advanced Distributed Learning System (NATO JADL). ○ Critical Information Security Fundamentals. Introduction to the art and science of information security in NATO. NATO Joint Advanced Distributed Learning System (NATO JADL). ○ Security in the information age. Introduction to the changing nature of international relations as brought about by the information revolution, with a specific focus on risks and insecurity in the information age. NATO Joint Advanced Distributed Learning System (NATO JADL). ○ Cyber Defence Awareness. Basic knowledge and familiarization on the most important and relevant topics of the Cyber Defence and IT Security area. NATO Joint Advanced Distributed Learning System (NATO JADL). ○ Infrastructure Awareness Course. Current and prospective strategic level issues related to critical infrastructure protection (CIP). NATO Joint Advanced Distributed Learning System (NATO JADL). ○ Introduction to NATO Environmental Protection. Introduction to Environmental Protection in a NATO context. NATO School Oberammergau. ○ Security Policy, International Relations, and Information Technology. This course addresses the relationships between international politics/policies and modern information technologies. It also provides a basic knowledge of Internet search tools and techniques. NATO Joint Advanced Distributed Learning System (NATO JADL). ○ NATO Energy Security Awareness. The purpose of this course is to raise awareness of current energy developments and to provide basic knowledge on the role of new technologies in enhancing energy efficiency in the military and supporting the protection of critical infrastructures. NATO Energy Security Centre of Excellence. ○ NATO Intelligence an Overview. This course conveys core concepts about intelligence as described in Allied Joint Publication 2 series (Intelligence publications). NATO School Oberammergau. ○ European Security and Defense Policy (ESDP). This course provides an introduction into the European Security and Defense Policy. NATO School Oberammergau. ○ NATO Civil Emergency Planning - An Overview. NATO Civil Emergency Planning (CEP) Overview. This course details the roles, origins and organization of CEP, and describe the tools, processes and procedures used by CEP to accomplish its responsibilities. NATO School Oberammergau. ○ Introduction to the Energy Security Center. This course familiarises students with the NATO ENSEC Center of Excellence (COE), its mission and organisation, and discuss how it enhances military energy efficiency for NATO as it was outlined at NATO's Chicago Summit. NATO ENSEC Center of Excellence (COE). ○ Introduction to Satellite Operations. This course focuses on the physical behaviour of the Military satellites in space. NATO School Oberammergau. ○ NATO JISR Operations Awareness Course. The course provides the students key definitions, basic understanding and explanation of the JISR (Joint Intelligence, Surveillance and Reconnaissance) process that underpin NATO JISR Operations. NATO School Oberammergau. ○ Multinational Crisis Management. This course introduces the concept of NATO crisis management. NATO School Oberammergau. ○ Introduction to the NATO Public Key Infrastructure (NPKI). The course provides key definitions, concepts and processes associated to the NATO PKI. NATO Communications and Information Systems School.

Date	FROM FEBRUARY 2012 TO JANUARY 2018
University or Centre	NATO Communications and Information Agency (NCIA), NATO Education and Training Facilities, NATO Centres of Excellences and other NATO entities.
Studies	<p>COURSES ABOUT INFORMATION TECHNOLOGY, EXERCISES AND PROCESSES IN THE DEFENCE ENVIRONMENT</p> <ul style="list-style-type: none"> ○ NATO Newcomers and NATO Basics: Two courses with an overview of the North Atlantic Treaty Organization. NATO Joint Advanced Distributed Learning System (NATO JADL). ○ Operations and the Information Age. This course is an introduction to the IT applications in order to support military operations. NATO Joint Advanced Distributed Learning System (NATO JADL). ○ Joint Exercise Management Module (JEMM). The JEMM is a support tool that supports the preparation and execution of a training event within the Exercise Control Organization (EXCON). It constitutes a central repository for key scenario documentation, processes, objectives, story lines, requests for information from observers/trainers, etc. NATO Joint Warfare Centre. ○ Computer Assisted Exercise (CAX) Course. Overview of the organizational structure, tools and processes needed to conduct a CAX. NATO Joint Warfare Centre. ○ NATO RRT - Expert Training. The Rapid Reaction Team (RRT) learning module is intended to prepare NATO civil experts for possible deployment away from their normal places of business to provide expertise on behalf of NATO. NATO School Oberammergau. ○ NATO Strategic Communications. The aim of this course is to familiarise with the basics of communications and the concept of strategic communications NATO Strategic Communications Centre of Excellence. ○ Introduction to NATO's ETEE - Global Programming. The course provides a fundamental understanding of NATO's approach to Education, Training, Exercise and Evaluation (ETEE). It outlines the governance structure, development methodology and the production planning process. NATO Joint Advanced Distributed Learning System (NATO JADL). ○ NATO Lessons Learned Courses. Two courses about the NATO Lessons Learned process: <i>ETE-IT-22081 Lessons Learned Course</i> (describing the Bi-SC Directive 080-006) by the NATO Joint Analysis & Lessons Learned Center and <i>Lessons Learned Process</i> by the NATO Military Center of Excellence. ○ NATO Procurement and Contracting Course. This course is composed by several modules. The main objective of the course is to provide a very detailed guide about the NATO contracting by introducing planning mission support strategies as well as market research. NATO School Oberammergau. ○ NATO Maritime Command and Control Systems. Three courses about the NATO Maritime Command and Control Systems. NATO Maritime Interdiction Operational Training Center (NMIOTC). ○ Joint Warfare Training Course. The purpose of this course is to introduce the Joint Warfare Centre's (JWC's) structures, roles, responsibilities, as well as its current operational missions. NATO Joint Warfare Centre. ○ Exercise Planning Course. This course provides a theoretical introduction and overview of the NATO joint and multinational exercise planning process. NATO Joint Warfare Centre.

OTHER COURSES

Date	FROM MARCH 1995 TO JANUARY 2018
University or Centre	Several Organizations.
Studies	Courses on technologies of the Information in several Organizations.
Certificate(s)	<ul style="list-style-type: none"> ○ Data management in Defence. Department of Defence. (20 Hours). ○ Quality in the Development of Software (ESPELSA-STC, 100 Hours). ○ Architecture and SAP Communications. (LMDATA, 20 Hours). ○ Services of Directory and Metadirectory. CRITICAL PATH ○ Services Web and Architecture SOA. ARTIX. (IONA, 20 Hours). ○ Advanced Administration of Oracle (ATI, 50 Hours). ○ Replication of Databases in Real time (Quest, 5 Hours).

- OO Databases (Ideal Objects S.A. 25 Hours).
- Advanced Development of Applications in Internet (ABS, 50 hours).
- Object-oriented programming (Ideal Objects S.A. 25 Hours).
- ORBIX and CORBA (Ideal Objects S.A., 20 Hours).
- Administration of Networks. (CEESINE – TISA, 200 Hours).
- CENTURY21: COBOL CICS DB2, Foundation. (SPAIN BOX, 50 Hours).
- Programming in Java (LEGIONET - CENTRISA, 40 Hours).
- Programming in Visual BASIC (CSI/CSIF, 200 hours).

LANGUAGES	SPANISH	ENGLISH	FRENCH
LEVEL	C2	C2	A1

RESEARCHING AND PUBLICATIONS

CONFERENCES, JOURNALS AND CONGRESS

(Chronological order)

1. López, J.C.; Heradio, R.; Cerrada, J. A.; J. R. Coz. “**A first generation software product line for data acquisition systems in astronomy**”. SPIE Symposium on Astronomical Telescopes and Instrumentation: Synergies between Ground and Space. Marseille, France, June 23-28, 2008.

This article presents a case study on developing a software product line for data acquisition systems in astronomy based on the Exemplar Driven Development methodology and the Exemplar Flexibilization Language tool. The main strategies to build the software product line are based on the domain commonality and variability, the incremental scope and the use of existing artefacts. It consists on a lean methodology with little impact on the organization, suitable for small projects, which reduces product line start-up time. Software Product Lines focuses on creating a family of products instead of individual products. This approach has spectacular benefits on reducing the time to market, maintaining the knowledge, reducing the development costs and increasing the quality of new products. The maintenance of the products is also enhanced since all the data acquisition systems share the same product line architecture.

2. J. R. Coz; Heradio, R.; Cerrada, J.A.; Lopez, J.C. “**A generative approach to improve the abstraction level to build applications based on the notification of changes in databases.**” 10th International Conference on Enterprise Information Systems. Barcelona, Spain, June 12 – 16, 2008.

This paper highlights the benefits, in terms of quality, productivity and time-to-market, of applying a generative approach to increase the abstraction level to build applications based on the notification of changes in databases. Most of the databases maintain meta-tables with information about all stored tables; this information is used in an automatic process to define the software product line (SPL) variability. The remaining variability can be specified by means of domain specific languages. Code generators can automatically query the meta-tables, analyze the input specifications and configure the current product. The paper also introduces the Exemplar Driven Development process to incrementally develop code generators and the Exemplar Flexibilization Language that supports the process implementation.

3. R. Heradio; J. A. Cerrada; J. C. Lopez; J. R. Coz. “**Code Generation with the Exemplar Flexibilization Language**”. Workshop on Generative Technologies (ETAPS’08). Budapest, Hungary, April 5, 2008.

Code Generation is an increasing popular technique for implementing Software Product Lines that produces code from abstract specifications written in Domain Specific Languages (DSLs). This paper proposes to take advantage of the similitude among the products in a domain to generate them by analogy. That is, instead of synthesizing the final code from scratch or transforming the DSL specifications, the final products are obtained by adapting a previously developed domain product. The paper also discusses the capabilities and limitations of several currently available tools and languages to implement this kind of generators and introduce a new language to overcome the limitations.

4. J. R. Coz; R. Heradio; J. A. Cerrada; **“Building a Product Line, using technology Queue Management through a generative approach”**. XVIII National Users Congress - Oracle. Málaga, October 2008.

The paper deals with the presentation of a framework that is designed to build applications based on the mechanisms Oracle change notification. The Framework to present construction is used for software product lines (SPL) using an approach based on generative programming.

5. J. R. Coz **“Using Best Management Practices offered by PRINCE2 applied in the Court Records Branch of the Ministry of Justice”**. III Edition Spanish Projects Management Forum with PRINCE2, Madrid June 2009.

Lecture summary of the proposed implementation of good practices in PRINCE2 in the Court Records Branch of the Ministry of Justice. It is used for the management of functional changes in large systems.

6. J. R. Coz, E. Fojón C., R. Heradio, J.A. Cerrada. **“Scorecard as process support Maturity Privacy Assessment in a Virtual Social Network”**. ITGSM'2010. V International Congress on IT Governance and Service Management: Proposals for Tough Economic Times. Alcala de Henares, June 2010.

Internet is a dynamic and globalizing, continuously, is very heterogeneous information feeds. It is increasingly common for Internet users to share personal information on the internet, with the advantages and risks involved, so it is necessary global regulation, which safeguards the privacy thereof. In recent years, Virtual social networks have become one of the most popular services for the exchange of information, mostly personal and global use relevance starts its importance. This article summarizes the Maturity Model Privacy in a Virtual Social Network, the Assessment Framework Maturity and details a Support Tool Evaluation shaped Scorecard.

7. A. Sanz Villalba, J. R. Coz. **“Migration from methodology PRINCE2 Project Management ad hoc high-security environments”**. IV Edition Spanish Projects Management Forum with PRINCE2, Madrid June 2009.

Presentation on the use of good project management practices applied to large information systems in the Defense environment.

8. J. R. Coz. **“State of maturity of information security in the Government”**. *Expert AURIATIC Blog*, Madrid October 2010.

Paper summarizing the state of maturity of the Security of Information in Public Administration.

9. J. R. Coz. **“Impact of Data Management in Information Security in the Government”**. *Expert AURIATIC Blog*, Madrid January 2011.

Paper summarizing the impact of Data Management in the management of information security in public administration.

10. J. R. Coz. **“Impact of ICT certifications in finding employment in times of crisis”**. *Opinion article in leonoticias.com*. April 2011.

Paper on the importance of professional certifications in the job search. The article presents some statistics from a study by the Institute Innovate on job search websites and the relationship with some professional certifications in ICT.

11. J. R. Coz, E. Fojón. **“International Panorama in the establishment of National Cyber Security Strategy”**. *Security Computers and Communications Journal*. Madrid June 2011.

Every state should evaluate the need to protect its cyberspace in order to ensure social, economic and cultural. One of the key instruments to achieve this goal is the definition of a National Cybersecurity Strategy. This article lists the basic pillars of national cyber security strategies exist in the international arena and to include leadership from the state, the creation of an organizational structure control, the development of training and awareness, public economic momentum - private, foreign policy, and regulations normalizations, and finally, the management of R + D + i. It also describes certain structures and capabilities developed by different nations in the field of Cyber Security.

12. J. R. Coz, E. Fojón. **“Precariousness in the audit functions in government systems”**. *Innovate magazine*. Madrid June 2011.

The responsibility for the control of public information systems is a function delegated by the state. Under the umbrella of this control, Systems Audit function plays a very prominent and public administrations have not yet evolved to the level required by the citizens, who demand quality public services, safe, effective and efficient.

Until this function is not considered strategic, administrations fail to mature citizen's demand. The article addresses this issue, describing the status of the audit function in government.

13. J. R. Coz, E. Fojón. ***"An educational model for a National Cyber security Strategy"***. ENISE Congress (International Meeting of the Information Security). Leon. October 2011.

Provide reasonable assurance for proper cultural, social and economic development in a country is an inalienable responsibility of the State. Within the wide range of this responsibility, the protection function of the Cybersecurity plays a very prominent role and our country has not yet evolved to the level required by citizens demanding a public service that gives safety, effectiveness and efficiency in the control and protection of information in cyberspace. One of the key tools used by neighboring countries is the definition of a National Cybersecurity Strategy. International strategies implemented base their operation on a series of pillars. A very prominent pillar is education. This paper summarizes the most important characteristics of education in this area and proposes a model for management.

14. J. R. Coz, E. Fojón. ***The Cyber Security Geostrategic of Knowledge***. Network Security Magazine. Madrid. November 2011.

The Government of Spain should develop a "knowledge Geostrategy cyber security". This strategy must have the support and involvement of all sectors of our society and a commitment to political forces that can be maintained over time, beyond alternations in power.

15. J. R. Coz, E. Fojón C., R. Heradio, J.A. Cerrada. ***"Evaluation of the privacy of a virtual social network"***. RISTI Journal nº 9, 6-2012. ISSN 1646-9895.

Both for organizations and companies as a whole, the protection of cyberspace is a crucial aspect and privacy of information is one of the pillars on which rests this protection. In the process of construction of cyberspace, virtual social networks have become one of the most important elements for the exchange of information, and its use globally and massive serves to underscore its strategic importance. In this paper, we propose the evaluation of privacy in online social networks, through a maturity model, a framework for comprehensive assessment and control box.

16. J. R. Coz, E. Fojón et all. ***"The Cyber security Strategy and Reference Models"***. I Spanish Cyber Security Institute Forum. 20.11.2012. Madrid.

This short paper presents some strategic considerations about Cybersecurity and then analyzed these strategic considerations from a practical standpoint, exposing some reference models internationally.

17. J. R. Coz y Vicente Pastor. ***"Situational Awareness in Defence Environment"***. Security Cybersecurity, Info-security and Privacy Journal. February 2013.

Once it has reached a sufficient level of maturity in cyber defense techniques and media, it is necessary to continue to improve and be able to know, dynamically, the security level of the systems. It is necessary to enable appropriate use of resources and application of the principles of risk management by threat information and probabilistic models obtained from the analysis of safety data. As the situation changes very quickly and requires an immediate response to the threats of information is received and the damage from security incidents, it is necessary to rely on data visualization techniques complex to make the right decisions in the shortest time possible. This article presents the current situation situational awareness systems for cyber and outlines the concept of information visualization as an essential element of situational awareness.

18. J. R. Coz y Vicente Pastor. ***"Situational Awareness in Defence Environment: challenges"***. Cybersecurity, Info-security and Privacy Journal. April 2013.

It is clear that to achieve adequate control over our ICT infrastructure necessary to operate our situational awareness systems. However, many times we forget about the challenges of introducing new ways of working and we focus too much on the technologies that we will acquire, forgetting to give adequate attention to the processes that need to be created, modified and adapted in the business and organizational changes necessary. In many cases, it is key to do a better use of human resources, to integrate new systems within the organization. We present here some of these challenges along with recommendations for how to minimize the associated risks.

19. J. R. Coz et all. ***"A Domain Engineering Approach to Increase Productivity in the Development of a Service for Changes Notification of the Configuration Management Database"***. Journal of Software Engineering and Applications. JSEA. Vol.6 No.4, April 2013. pp. 207-220. DOI: 10.4236/jsea.2013.64026

This paper presents a domain engineering approach to build a software product line that supports the change notification service in a Configuration Management Database (CMDB) according to the Information Technology Infrastructure Library (ITIL) best practices. For the development of this product line, the proposed approach

makes use of a construction of products methodology by analogy. This is a new notation reports the variability of the products, obtaining metrics as important as the number of products and uses a language that enables, by means of the flexibilization of a product and the development of some generators, to build the rest of the product line. In addition, the paper offers a standard for the analysis and design of the CMDB as well. Finally, the paper presents an economic model for the product line, where the profitability and productivity of the proposed solution are analyzed.

NOTE: Paper selected as one of the best papers in Computers Science by the "Journal of Software Engineering and Applications" (2013).

20. J. R. Coz, E Fojón, A. Hernández y G. Colom. **"Cyber cells: a tool for national cyber security and cyber defence"**. *ARI. Real Instituto Elcano. ARI 26/2013*. September 2013.

Except for countries that are pioneers in cyber security and cyber defence such as the US, China and Israel, these days most nations are developing basic cybernetic capabilities, such as information and communications technologies and the organizations and procedures that will make them work when they reach maturity. When this happens, it will be necessary to devise the organizations and operational procedures –cyber cells– that allow countries to operate using those previously established capabilities. This paper describes the concept of cyber cells, their functions, tasks and areas of operation, as well as the enablers that will allow them to work. Although it is a matter of a next-generation capability that will complement those which are now being set up, the authors argue that Spain should think about what kind of cyber cells would in fact complement the cyber defence and cyber security capabilities that are being established for use by the military and the national security forces.

21. José-Ramón Coz-Fernandez, Rubén Heradio-Gil, José-Antonio Cerrada-Somolinos, **"Cost Models and Productivity Building Applications Based on the Notification of Changes in Databases"**. *Software Engineering. Vol. 1, No. 2, 2013, pp. 7-12. DOI: 10.11648/j.se.20130102.11*

This paper presents a generative approach to build a Software Product Line (SPL). This SPL is used to build applications based on the Notification of Changes in databases. The paper highlights the benefits, in terms of productivity and cost, using this approach. To obtain the economic data we have used two cost models, the SIMPLE Model (Structured Intuitive Model for Product Line Economics) and one adaptation of COPLIMO (Constructive Product Line Investment Model). Both models demonstrate the great productivity of this SPL. The paper also introduces the Exemplar Driven Development (EDD) process used to build the SPL.

22. J. R. Coz, E. Fojón. **Models and approaches about Cybersecurity in virtual social networks**. *Network Security Magazine. Madrid. September 2013*.

The cyberspace evolves through an extremely complex construction process, and one of its most important elements is the virtual social networks, which have become a component of strategic importance. Social networks facilitate the exchange of information and its widespread use is global. In recent years the number of cyber-attacks over this element of the cyberspace has been increasing. This article summarizes various models and approaches that support Cybersecurity in virtual social networks.

23. José-Ramón Coz-Fernandez.

- **"Delay of National Cybersecurity Strategy."**
- **"What we find in the new national Cybersecurity strategy".**
- **"A Brief Analysis on the new National Cybersecurity Strategy."**

Blog THIBER. Madrid. September - December 2013.

24. José-Ramón Coz-Fernández et al. **Cloud Controls Matrix adaptation to the Spanish legislation on the matter (Regulation Law Data Protection, RLOPD) and the National Security Scheme (ENS)**. *Cloud Security Alliance, Madrid. June 2014*.

The Cloud Security Alliance has published a guide that lists the most important reference controls in Cloud security, based on the principles published in the Cloud Controls Matrix 3.0 and the requirements of the Spanish legislation on the matter (Regulation Law Data Protection, RLOPD), and the National Security Scheme (ENS).

25. José Ramón Coz Fernandez and other members of the Embassies Data-Working Group from THIBER. **The embassies of data: the protection of state information**. *Real Institute Elcano. ARI 36/2014. July 2014*.

Estonia is considering replicate abroad the computer databases that allow the delivery of essential public services to mitigate the damage of a possible injury or loss. The gradual awareness of societies and governments against the dangers of cyberspace is leading them to acquire new Cybersecurity and Cyberdefence instruments. This study examines the "embassies data" concept as a response option, and how it could be established in order to support the foreign policy and the Cybersecurity of a country.

26. J. R. Coz y Vicente Pastor. **“Multi-agent environments and Cyber-Physical Systems in Cyberdefence”**. *Cybersecurity, Info-security and Privacy Journal*. September 2013.
This paper describes the main characteristics of Cyber-intelligent systems, called MAS & T (Multi-Agent Systems and Technologies), and the Cyber-Physical Systems (CPS), and its impact on the Cyberdefence. In recent years, these systems have become highly relevant and currently there is a great potential for innovation, development and research in this area.
-
27. José Ramón Coz Fernández. **“France, a leadership in Cyberdefence”**. ISMS Forum Spain. October 2014.
The article describes the main issues about the leadership of France in the field of Cyberdefence and the most relevant aspects of the National Cyber Security Programme with a budget of one billion euros.
-
28. J. R. Coz y Vicente Pastor. **“The challenge of sharing information on Cyberdefence”**. *Cybersecurity, Info-security and Privacy Journal*. Madrid November 2014.
Cyber investments have increased almost exponentially in the last decade in the more advanced countries, and budgets in large engineering programs to support ICT Cyberdefence have, in some cases, a budget of several million euros, as is the case in the most advanced Countries or leading organizations such as NATO. As a result, support systems on Cyberdefence are increasingly complex and require interoperable architectures that enable information sharing occurs in a standardized way. In this article, we detail some of the concepts, standards and protocols having the greatest impact on the exchange of information on the Cyberdefence.
-
29. José Ramón Coz Fernández. **“Arabia Saudi, the country of the oil, and the Cyber security”**. ISMS Forum Spain. October 2014.
The article describes the main issues about the leadership of Arabia Saudi in the field of Cyberdefence and the most relevant aspects of the National Cyber Security Projects with a budget of several billion euros.
-
30. José Ramón Coz Fernández. **“Cyber United Kingdom, a great bet for the Cybersecurity and Cyberdefence”**. ISMS Forum Spain. October 2014.
The article describes the main issues about the leadership of the UK in the field of Cyberdefence and the most relevant aspects of the National Cyber Security Programs.
-
31. José Ramón Coz Fernández & Others. **“Cloud Computing Spanish Security State of the Art Analysis”**. *Cloud Security Alliance, Spanish Chapter*. ISMS Forum Spain. November 2014.
CSA-ES has renewed its insights into cloud security within Spanish and Spanish-speaking cloud market by means of its 2014 Cloud Security State-of-the-Art Study. This Study counted on the feedback collected from more than 60 different companies mainly based in Spain. However, It also includes other countries and regions around the world such as South and North America.
-
32. J. R. Coz and Vicente Pastor. **“STIX: standard for sharing information on Cyberdefence”**. *Cybersecurity, Info-security and Privacy Journal*. February 2015.
In this paper, the authors describe the existing proposals that facilitate the automation of the sharing information on Cyberdefence. The paper includes as well an analysis about the initiative of the American corporation MITRE to describe intelligence on Cyber Threats (STIX, Structured Threat information eXpression).
-
33. J. R. Coz and Vicente Pastor. **“Cybersecurity profiles on request”**. *INNOVATIA*. February 2015.
Market growth Cybersecurity in the most technologically advanced countries is assuming a change in the processes of incorporation of staff with expertise in this field. The article presents some concepts on Cybersecurity and analyzes the importance of training and education.
-
34. J. R. Coz and Enrique Fojón. **“Different speeds in the field of cyber in NATO”**. *THIBER – El Mundo*. March 2015.
Short paper about the need for all stakeholders to develop specific skills and capabilities about Cyberdefence.
-
35. J. R. Coz and Vicente Pastor. **“Without effective coordination there is no Cyberdefence”**. *Ciber- Elcano. Elcano Institute*. April 2015.
This article shows the coordinating organizations and initiatives that exist in other countries to facilitate sharing of information and contribute to the collective defense of cyberspace in prevention and response to security incidents.
-

36. J. R. Coz and Vicente Pastor. "**The ISACs (Information Sharing and Analysis Centers) as basic architectures for Cyberdefence**". *Cybersecurity, Info-security and Privacy Journal*. April 2015. In the field of Cyberdefence one of the most important structures are the Information Sharing and Analysis Centers (ISAC). In this paper, we describe the main features of these centers and their impact on Cyberdefence.

37. J. R. Coz. "**The Cyber-Commands and the Segregation of duties**". THIBER- Elcano. Elcano Institute. June 2015.

The paper presents the concept of segregation of duties in the Cyber-Commands. It also analyzes how this issue can be dealt with compensating controls and audits, as it is performed in the most important international Cyber Programs.

38. J. R. Coz and Vicente Pastor. "**Military Cyberdefence and the Internet of the Things (IoT)**". *Cybersecurity, Info-security and Privacy Journal*. September 2015.

The paper describes the impact of Internet of the Things on the Cyberdefence in the Military field. This concept starts to be analyzed by the specialists under the umbrella of the systems architecture.

39. J. R. Coz, R. Delgado, M. Rodríguez y T. Arroyo. "**COBIT-PAM Evaluation Tool**". ISACA COBIT Working Group. 10.09.2015. Madrid

At this conference a tool for assessing the maturity of an organization's IT governance COBIT-based PAM process is presented.

40. J. R. Coz and Vicente Pastor. "**I do not know what goes on in my network. Can I protect it properly?**" *Ciber- Elcano. Elcano Institute*. October 2015.

This article shows the difficulties that arise for effective cyber defense exercise that processes, technologies and human teams dedicated to managing information systems and those engaged to defend them from external attacks, are separated from each other.

41. J. R. Coz and Enrique Fojon. "**National cybersecurity a priority**" *El español*. November 2015.

This article summarizes the major steps to address prior to the design of a large national cybersecurity program, in line with what has been done in the most developed countries in this field and the situation of maturity of the national cybersecurity.

42. J. R. Coz and Vicente Pastor. "**New Higher Education in cyber defense at the international level**". *Cybersecurity, Info-security and Privacy Journal*. June 2016.

In this article, we describe the main features of Higher Education in the field of cybersecurity internationally, highlighting the main disciplines covering and the situation regarding the degrees offered in other countries. In recent years, the demand for professionals in this field has grown so that educational systems have not responded on many occasions with the haste shown by industry and, in general, the market.

43. J. R. Coz and Vicente Pastor. "**The NATO cyber-incubator projects and other international initiatives**" *Ciber- Elcano. Elcano Institute*. September 2016.

In this article, we briefly describe one of the most important initiatives of NATO cyber security features. It is the cyber-incubator projects framed within the efforts being made by the Organization in its partnership with industry and academia for cybersecurity issues (NICP). In recent years have launched a series of initiatives in this field have gained great importance and today are the pillars of innovation and research in cybersecurity within NATO.

44. J. R. Coz. "**Conference about the Knowledge management model (MOCIE) and a case study in the Spanish defense sector**" International Congress CIdEM 2016. Granada, October 2016.

In this conference, it is presented the model of knowledge management based on the input-output framework that enables us to know the economic impact of the public investments. This model has been applied in the area of Defense in order to assess the economic impact of a series of investment programs in the aeronautic sector.

45. J. R. Coz. "**Conference on the management of economic knowledge in the new economy of Defense**". II Conferences about Aerospace and economy of the Spanish Air Force. Madrid. March 2017.

An innovative and emblematic research project was presented, which can provide a notable improvement in the economic management of defense programs. It was analyzed the economic context of Defense and provided the main conclusions of this project and its lessons learned. During the research project, a large case study was developed within the Defense Aeronautics Sector: the maintenance of aircrafts.

46. J. R. Coz. ***“The role of cybersecurity in communicative management in organizations”***. INNOVATIA Journal n. 55. Madrid, March 2018.

In the mentioned article published in the Innovatia Journal, the role of cybersecurity in communicative management is described, and how the different aspects covered by cybersecurity can support the challenges that communication faces in all organizations. The main conclusion of the article is that the main characteristics of the organizational communication processes must be supported by an adequate cybersecurity.

47. J. R. Coz. ***“Why is it so difficult to characterize cyberspace? Valid approaches for cyber defense”*** International Congress CIdEM 2018. Granada, October 2018.

This communication describes some of the relationships related to knowledge management and maneuverability in cyberspace, and some pertinent approaches that obtain relevant information that supports operations..

BOOKS AND CHAPTERS

(Reverse chronological order)

1. New Models of Risk Analysis in Cybersecurity. ISACA, Madrid Chapter. November 2018.

This document, prepared by a group of experts from the Madrid Chapter of ISACA, analyzes the situation that organizations face when they have to manage risks associated with Cybersecurity. As a result of the analysis, a specific dynamic risk analysis model for Cybersecurity is proposed.

<http://www.isaca.org/chapters7/Madrid/members/Pages/Publicaciones.aspx>

2. Reviewing the function of Systems Audit in the digitized company. ISACA, Madrid Chapter. November 2018.

This document, prepared by a group of experts from the Madrid Chapter of ISACA, reviews the function of systems auditing within the company. The main objective of this function is to ensure that controls are effective, that processes are executed as designed, and that risk levels are located within the company's risk.

<http://www.isaca.org/chapters7/Madrid/members/Pages/Publicaciones.aspx>

3. Data Privacy Audit/Assurance Program (Spanish). March 2018. ISACA.

A team of ISACA in which I participated has translated this book. The Data Privacy Audit/Assurance Program shares control objectives and controls in areas of data privacy beginning with data collection all the way through incident management. The main objective is to provide organizations with a means to assess the effectiveness of their practices around data governance for privacy, confidentiality, and compliance (DGPC) as well as alignment with external expectations.

<http://www.isaca.org/Knowledge-Center/Research/ResearchDeliverables/Pages/data-privacy-audit-program.aspx>

4. The New Economy of Defense. - Reflections from the Aerospace Area. Chapter 10, p. 253-272. Editorial Ministry of Defense. March 2018.

This work reflects the contents of a coordinated effort between University, Industry, Academia and Public Administration. Experts from these sectors review traditional concepts about Economy, Defense and Aerospace Sector and update them. The book chapter presents an economical model to analyze the economic impact of the maintenance of the aircrafts.

<http://www.ejercitodelaire.mde.es/EA/ejercitodelaire/es/.galleries/anexos/La-Nueva-Economia-de-la-Defensa-en-un-Nuevo-Orden-Mundial.pdf>

5. Military and security studies at the dawn of the 21st century. ISBN 978-84-338-6085-9, p. 473-491. Editorial Universidad de Granada. June 2017.

The work brings together the contributions of numerous experts and research groups from different universities, research centers in Spain and abroad. It collects the effort of civilian and military investigators, gathered around the same concerns. It is a relevant material, of great intellectual value, of full relevance, thorough, analytical and with very new contributions to the fields of security and defense, from different disciplines such as Economy, Political Science, History, Engineering and Sociology. The book chapter presents the MOCIE model for the economic impact of public programs and their application to the defense sector in Spain

<https://dialnet.unirioja.es/servlet/libro?codigo=693346>

6. Knowledge management model proposal based on an economic output input framework. Case study: Spanish Defense sector. THESIS DISSERTATION.

Departamento de Economía Aplicada VI. Universidad Complutense de Madrid. April 2016.

In the current macroeconomic scenario, making economic decisions in any public organization must be supported by adequate economic-intelligence. It is a priority to obtain models, techniques and tools to ensure adequate control in all its investments. In this paper, we present a model of knowledge management based on the input-output framework that enables us to know the economic impact of the investments. This model is supported by an information system that will contribute to economic analysts in decision-making in the field of public investments. The model and the system have been applied in the area of Defense in order to assess the economic impact of a series of investment programs in the aeronautic sector.

<http://eprints.ucm.es/40568/>

7. COBIT 5 for Information Security (Spanish). November 2015. ISBN 978-1-60420-387-5.

A team of ISACA Madrid in which I participated has translated this book. This publication is intended for several audiences who are dealing with cybersecurity directly or indirectly. These may include information security managers (ISMs), corporate security managers, end users, service providers, IT administrators and IT auditors. The primary purpose is to enable a uniform governance, risk management and security management framework for enterprises and other organizations. The secondary purpose is to provide guidance on detailed concepts and steps in transforming cybersecurity.

<http://www.isaca.org/COBIT/Pages/COBIT-5-spanish.aspx>

8. COBIT 5 for Information Security (Spanish). January 2014. Product Code:CB5ISS.

A team of ISACA Madrid in which I participated has translated this book. COBIT 5 for Information Security is a major strategic evolution of COBIT 5—the only business framework for the governance and management of enterprise IT. This evolutionary version incorporates the latest thinking in enterprise governance and management techniques, and provides globally accepted principles, practices, analytical tools and models to help increase the trust in, and value from, information systems.

<http://www.isaca.org/COBIT/Pages/COBIT-5-spanish.aspx>

9. COBIT 5 Enabling Processes (Spanish). January 2013. ISACA. ISBN 978-1-60420-285-4.

A team of ISACA Madrid in which I participated has translated this book. The book "COBIT 5: Process Catalysts" complements COBIT 5. This publication contains a detailed reference guide of the processes defined in the process model COBIT. The COBIT 5 framework builds on basic principles, which are covered in detail and include comprehensive guide catalysts for the governance and management of enterprise IT.

<http://www.isaca.org/COBIT/Pages/COBIT-5-spanish.aspx>

10. National Cyber Security, a commitment for everybody. SCSi June 2012.

Information and Communications Technology (ICT) have contributed to the welfare and progress of societies, in such a way that a large part of public and private relations depend on these technologies. Over time and throughout evolution risks have emerged that have made it necessary to manage the ICT security. Initially cyber security was concerned with protecting information reactively, although subsequently it has evolved towards a proactive position, which identifies and manages risks that threaten cyber space. Within the framework of the Spanish Cyber Security Institute and ISMS Forum, a study was carried out which developed an approach to concepts of cyber space and cyber security.

English: <http://www.ismsforum.es/ficheros/descargas/a-national-cyber-security-strategy-.pdf>

Spanish: <https://www.ismsforum.es/ficheros/descargas/informe-scsi1348666221.pdf>

11. Development of a notifications changes service in a CMDB using generative programming. THESIS DISSERTATION.

National University of Distance Education. School of Engineering. Department of Software Engineering and Computer Systems. February 2011.

<http://e-spacio.uned.es/fez/eserv.php?pid=tesisuned:IngInf-Jrcoz&dsID=Documento.pdf>

12. Maturity Model for Privacy of Virtual Social Network. February 2010. José Ramón Coz y Enrique Fojón Chamorro. ISBN: 978-1-4457-2017-3.

This book presents the most important aspects related to the privacy of information of virtual social networks. The work presents a maturity model for valuing virtual social network in this area. The book is aimed at both professionals information technology interested in pursuing this matter, as the users of social networking sites that are concerned about the privacy of your information

<http://www.amazon.com/MODELO-MADUREZ-PRIVACIDAD-VIRTUAL-Spanish/dp/1445720175>

13. Auditing Framework for Information Systems. Edited by ISACA MADRID. (2009). ISBN: 978-84-613-4128-3.

One of the tasks traditionally performed ISACA ® has been the publication of materials that would guide systems auditors in carrying out their audit work. Therefore, begun by the same Code of Professional Ethics has developed a whole body of law, which includes Standards, Guidelines and Tools and Techniques. These over fifty documents, original version provided: For the auditors, the minimum quality levels must work together to fulfill their professional responsibility. To the Management and any interested third parties in the audit function, bases for generating appropriate expectations. To all of them, additional information on how to comply and how to interpret the standards of application. In short, a set of materials worth collecting in a reference book that can be used as a reference for those who have some connection with the audit of information systems.

http://www.revistasic.com/revista87/otrostitulos_87.htm

14. Electronic Notes in Theoretical Computer Science (ENTCS), Vol. 238. N 2, 06/2009. 25-34.

Book Chapter about Generative programming by Language EFL (Exemplar Flexibilisation Language).

<http://portal.acm.org/citation.cfm?id=1555111>

15. Advanced Software and Control for Astronomy II.

Edited by Bridger, Alan; Radziwill, Nicole M. Proceedings of the SPIE, Volume 7019, pp. 70191L-70191L-9. ISBN-10: 0819472298. (2008).

Book Chapter about generative programming used in data acquisition systems in astronomy.

<http://adsabs.harvard.edu/abs/2008SPIE.7019E..52L>

UNIVERSITY RADIO PROGRAMS

1. Security and access control based on biometric systems.

Coz, J.R.; Heradio, R.; Estívariz, J. F. Broadcast by RADIO 3 (RNE) 26/03/2008.

Canal Uned: <http://unedradio.blogspot.com/2008/03/la-ingenieria-de-software-y-sistemas.html>

Audio: http://teleuned.uned.es/realaudiocemav/2007_2008/2008_03/20080326_02.wma

This program discussed issues on information security, privacy and access control systems based on biometric type. Some examples of use as an ID card or electronic passports.

2. Cryptology History and Evolution

Coz, J.R.; Heradio, R.; Fdez. Amorós, David. Broadcast by RADIO 3 (RNE) 23/11/2011.

Audio: <http://cozweb.es/radio/cripto1.mp3>

Summary: <http://cozweb.es/radio/cripto1.pdf>

This program introduces the basic concepts of cryptology and related disciplines, the Cryptanalysis, Steganography and cryptography. In addition, a brief historical overview of the evolution.

3. Cryptology and Cybersecurity.

Coz, J.R.; Heradio, R.; Fdez. Amorós, David. Broadcast by RADIO 3 (RNE) 30/11/2011.

Audio: <http://cozweb.es/radio/cripto2.mp3>

Summary: <http://cozweb.es/radio/cripto2.pdf>

This program introduces some progress on Cryptology and reviews the most relevant issues of national security in cyberspace (Cybersecurity).

RESEARCHING AND MORE LINKS RELATED

- [Research Gate Profile](#)
- [Google Scholar Profile](#)
- [LinkedIn Profile](#)
- The role of cybersecurity in communicative management in organizations. INNOVATIA. Feb 28, 2018. [URL](#)
- Conference on the management of economic knowledge in the new economy of Defense. II Conferences about Aerospace and economy of the Spanish Air Force. Madrid. March 2017. [URL](#).
- Conference about the knowledge management model based on an economic output input framework. A case study applied in the Spanish Defense sector. International Military Congress CIdEM 2016. October 2016. [URL](#).

- The NATO cyber-incubator projects and other international initiatives. Ciber- Elcano Journal. September 2016. [URL](#).
- New Higher Education in cyber defense at the international level". Cybersecurity, Info-security and Privacy Journal. June 2016. [URL](#)
- Military Cyberdefence and the Internet of the Things (IoT). Cybersecurity, Info-security and Privacy Journal. September 2015. [URL](#)
- National Cybersecurity, a priority. El español. November 2015. [URL](#).
- I do not know what goes on in my network. Can I protect it properly? Ciber- Elcano Journal. October 2015. [URL](#).
- Military Cyberdefence and the Internet of the Things (IoT). Cybersecurity, Info-security and Privacy Journal. September 2015. [URL](#)
- COBIT-PAM Evaluation Tool. ISACA COBIT Working Group. 10.09.2015. Madrid. [URL](#)
- The Cyber-commands and the Segregation of Duties. Ciber- Elcano Journal. June 2015. [URL](#).
- The ISACs (Information Sharing and Analysis Centers) as basic architectures for Cyberdefence. Cybersecurity, Info-security and Privacy Journal. April 2015. [URL](#)
- Without effective coordination, there is no Cyberdefence. Ciber- Elcano Journal. April 2015. [URL](#).
- Different speeds in the field of Cyber in NATO. THIBER – Elcano. March 2015. [URL](#).
- Cybersecurity profiles on request. INNOVATIA Journal. February 2015. [URL](#).
- STIX: standard for sharing information on Cyberdefence. Cybersecurity, Info-security and Privacy Journal. February 2015. [URL](#)
- Cloud Computing Security State of the Art Analysis 2014. Cloud Security Alliance, Spanish Chapter. (CSA-ES). November 2014. [URL](#). [PDF](#).
- Cyber United Kingdom, a great bet for the Cybersecurity and Cyberdefence! ISMS Forum Spain. January 2015. [URL](#).
- Saudi Arabia, the country's oil and Cyber security! ISMS Forum Spain. October 2014. [URL](#).
- The challenge of sharing information on the Cyberdefence. Cybersecurity, Info-security and Privacy Journal. November 2014. [URL](#). [PAPER](#).
- France, a leadership in Cyberdefence. ISMS Forum Spain. October 2014. [URL](#).
- Multi-agent environments and Cyber-Physical Systems in Cyberdefence. Cybersecurity, Info-security and Privacy Journal. September 2014. [URL](#). [PAPER](#).
- The embassies of data: the protection of state information. THIBER. ARI 36/2014. 16/7/2014. [URL](#). [PAPER](#).
- Controls Matrix for Cloud adapted to the National Security Schema and Privacy Standards. Spanish Cloud Security Alliance. Madrid, June 2014. [URL](#)
- Experts convened by ISMS Forum discussed the current state of national Cybersecurity in Spain. Madrid, October 2013. [URL](#)
- Papers in Spanish, in THIBER Blog (Think Tank about Cybersecurity)
 - Title: Delay of the National Cyber Security Strategy in Spain. Madrid, October 2013. [URL](#)
 - Title: Key ideas about the National Cyber Security Strategy in Spain. Madrid, October 2013. [URL](#)
 - Title: Brief Analysis about the National Cyber Security Strategy in Spain. Madrid, Dec. 2013. [URL](#)
- Cyber cells: a capacity for national cyber security and cyber defense '. Prezi presentation exportable format (self-executable). 2013. [URL](#)
- Models and approaches about Cybersecurity in virtual social networks. Network Security Magazine. Madrid. September 2013. [URL](#)
- Cyber cells: a tool for national cyber security and Cyberdefence. Real Instituto Elcano. September 2013. [URL](#). [PAPER](#).
- Cost Models and Productivity Building Applications Based on the Notification of Changes in Databases. [SUMMARY](#). [PAPER](#).
- A Domain Engineering Approach to Increase Productivity in the Development of a Service for Changes Notification of the Configuration Management Database. Journal of Software Engineering and Applications. April 2013. [SUMMARY](#). [PAPER](#)
- Situational Awareness: Challenges. Cybersecurity, Info-security and Privacy Journal. April 2013. [URL](#). [PAPER](#).
- Situational Awareness. Cybersecurity, Info-security and Privacy Journal. February 2013. [URL](#). [PAPER](#).
- Cybercrime experts call for lawsuits in the I Cyber security Forum. 2013. [URL](#)
- Evaluation of the privacy of a virtual social network. RISTI nº 9, 6-2012. ISSN 1646-9895. [PAPER](#).
- National Cyber Security, a commitment for everybody. SCSJ June 2012. [URL](#)
- The Cyber Security Geostrategic of Knowledge. Network Security Magazine. Madrid. January 2012. [URL](#)
- International Panorama in the establishment of National Cyber Security Strategy. SIC. June 2011. [URL](#)
- ENISE Congress 2011 on the Legal Framework for Critical Infrastructure. Conference on an educational model for a National Strategy for Cyber security. [URL](#)

- Presentation and Paper at the V International Congress ITSM Forum. Madrid, Spain 2010. [URL](#). [Congress Schema](#).
 - Development of software product families from a generative. [URL](#)
 - Impact of ICT certifications in finding employment in times of crisis. LEON, abril 2011. [URL](#)
 - Web site of collaborative work on Software Product Lines. [URL](#)
 - EFL. Exemplar Flexibilization Language. [URL](#)
 - Electronic Notes in Theoretical Computer Science, Volume 238, Number 2, June 2009. [URL](#)
 - Code Generation with the Exemplar Flexibilization Language. [URL](#)
 - Code Generation with the EFL. Oxford University Course. [URL](#)
 - A first-generation software product line for data acquisition systems in astronomy [URL](#)
 - Technology and Cybersecurity Blog. [URL](#)
-

ANOTHER INFORMATION

- Researcher in the Department of Applied Economy. Complutense University of Madrid. [URL](#)
- Associated Professor at Innove Institute Business School (IIBS). [URL](#)
- Professor at ISACA Madrid (Spanish Audit Systems Association). [URL](#)
- Professor at Polytechnic University of Madrid (UPM). [URL](#)
- Professor at European University of Madrid. [URL](#)
- Reviewer of several Journals as Knowledge Management Research & Practice, British Journal of Economics, Management & Trade, Journal of Global Economics, Management and Business, International Scholars Journals, Journal of Basic and Applied Research international, British Journal of Mathematics & Computer Science, Advances in Research, British Journal of Applied Science & Technology, Asian Journal of Economics, Business and Accounting, Asian Journal of Research in Computer Science or Science-Domain International.
- Editorial Member of the Asian Journal of Applied Science and Technology (AJAST). ISSN: 2456-883X. [URL](#)
- Member in Software Engineering Research Group UNED (Ref. g20e8). [URL](#)
- THIBER (Cybersecurity think tank) member. [URL](#)
- Member in the Working Committees of the Spanish Association of Auditors of Systems and Leader of the COBIT PAM Working Group. [URL](#)
- Numerary Senior Partner of ATI (Spanish Association of Technicians of Computer science). [URL](#)
- Associated to the Society of the Institute of Managers of Company (IDE-CESEM). [URL](#)
- ISMS Forum member. [URL](#)
- Member of the International Input-Output Association (IIOA). [URL](#)
- Member of the BPM Club. [URL](#)
- Certificates of Excellence in Reviewing by several Scientific Journals as the Asian Research Journal of Mathematics ([URL](#)), Journal of Energy Research and Reviews ([URL](#)), Asian Journal of Research in Computer Science ([URL](#)) or Journal of Advances in Mathematics and Computer Science ([URL](#)).
- [Summary Version of the Curriculum](#)