

CURRICULUM VITAE  
OF  
HRISTO TSVETANOV KOSHUTANSKI

**CONTACT DATA:**

Current Position: Postdoctoral researcher  
Institution: University of Malaga  
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**EDUCATION:**

Nov. 2001 - March 2005: Ph.D. in Information and Communication Technologies,  
University of Trento, Italy.  
Dissertation Title: Interactive Access Control for  
Autonomic Systems  
Advisor: Fabio Massacci  
  
1996 - 2001: M.Sc. in Mathematics.  
Faculty of Mathematics and Informatics,  
Plovdiv University "Paisii Hilendarski", Plovdiv,  
Bulgaria.  
  
1991 - 1996: High school degree.  
Technical School of Electrical Engineering and  
Electronics,  
Plovdiv, Bulgaria.

**RESEARCH INTERESTS:**

- Security architectures for distributed systems,
- Authorization and access control,
- Semantic interoperation of access control,
- Trust management and negotiation in open systems,
- Identity and privacy management.

## **AWARDS AND FELLOWSHIPS:**

- April 2007–March 2009: EU Marie Curie Fellowship (EIF) #038978  
Host Institution – University of Malaga  
Subject: Interactive Access Control with Trust Management for Pervasive Autonomic Networks  
<http://cordis.europa.eu/mariecurie-actions/eif/home.html>
- December 19, 2005: Honourable Plovdiv Citizen Award  
Awarded among other 20 people for given value to credibility and visibility of Plovdiv town.
- March 2005: Grant awarded by the School on Advanced Topics in Networking (SATIN) within European Doctoral Research Foundation (EDRF). Granted through the EU Network of Excellence: E-NEXT.
- November 2001: A 3-year PhD fellowship,  
Funded by Italian Ministry of Foreign Affairs and the University of Trento,  
International doctorate school in information and communication technologies (<http://ict.unitn.it>),  
University of Trento, Italy.

## **TALKS AND COURSES:**

- August 8-12, 2005: 17th European Summer School in Logic, Language and Information (ESSLLI'05).  
Course Title: Abduction and Deduction in Logic Programming for Access Control for Web Services.  
<http://www.macs.hw.ac.uk/esslli05>

## **PROJECTS (ACTIVELY OR PARTIALLY INVOLVED):**

- EU-FP6-MARIE-CURIE-EIF IACCESS: Interactive Access Control with Trust Management for Pervasive Autonomic Networks.
- Project duration: 2007 – 2009
  - Principle researcher
  - <http://www.interactiveaccess.org>
- EU-FP6-IST-STREP ONE: Open Negotiation Environment.
- Project duration: 2006 – 2009
  - Associated researcher (for project duration, active involvement)
  - Member of project advisory board
  - Field: identity and trust management for digital ecosystems
  - <http://www.one-project.eu>

EU-FP6-IST-IP GST S-PAY: Global System for Telematics - Service Payment (GST Sub-)Project.

- Project duration: 2004 – 2007
- Researcher (November 2006 – March 2007, active involvement)
- <http://www.gstforum.org/spay>

EU-FP6-IST-IP SENSORIA: Software Engineering for Service-Oriented Overlay Computers.

- Project duration: 2005 – 2009
- Associated researcher (September 2008 – August 2009, partial involvement)
- <http://www.sensoria-ist.eu>

EU-FP5-IST-FET WASP: Working Group on Answer Set Programming.

- Project duration: 2002 – 2005
- PhD student (involvement as part of PhD research)
- <http://wasp.unime.it>

#### **WORK EXPERIENCE:**

- Nov. 2006 – Present      Postdoctoral research position  
Department of Languages and Computer Sciences,  
University of Malaga, Spain.
- Sept. 2005 – Sept. 2006:      Postdoctoral research position,  
Field: security and trust,  
Center of REsearch And Telecommunication  
Experimentations for NETworked communities,  
CREATE-NET (<http://www.create-net.org>)  
Trento, Italy.
- April 2005 – Sept. 2005:      Postdoctoral research position  
Field: security and trust,  
Department of Information Engineering and Computer  
Science,  
University of Trento.
- June - July 2005:              Part-time Assistant  
Course: Operating Systems Security  
University of Trento, branch Rovereto.
- 1998 - 2000:                      Part-time Assistant  
Courses: Analytical Geometry and Linear Algebra  
Department of Geometry,  
Faculty of Mathematics and Informatics,

Plovdiv University "Paisii Hilendarski".

1998 - 1999:

Private Projects for Bulgarian Firms and Companies.  
Software Technologies:

- database design and implementation (Interbase, MySQL),
- dynamic information structures (C++, Pascal),
- Web design (HTML, XML, JavaScript),
- Web programming (Perl, ASP).

**SUMMER SCHOOLS** (ATTENDED):

14–23 June 2002:

ACM State-Of-The-Art Summer School on Foundations  
of Internet Security. Duszyniki Zdroj, Poland.

<http://www.ii.uni.wroc.pl/school/>

**REVIEW EXPERIENCE** (RESUME OF LAST TWO YEARS):

- Reviewer of The Netherlands Organisation for Scientific Research (NWO) Free Competition 2009 project proposals.
- PC member of the 1st International Conference on Digital Businesses (Digibiz-09) [<http://www.digibiz.org>]
- PC member of the 3rd International Symposium on Service, Security and its Data management technologies in Ubi-com (SSDU-09) [<http://www.sersc.org/SSDU2009>]
- PC member of 3rd International Conference on Emerging Security Information, Systems and Technologies [<http://www.iaia.org/conferences2009/SECURWARE09.html>]
- PC member of 2nd International Conference on Advances in Human-oriented and Personalized Mechanisms, Technologies, and Services [<http://www.iaia.org/conferences2009/CENTRIC09.html>]
- PC member of the 2nd International Symposium on Service, Security and its Data management technologies in Ubi-com (SSDU-08) [<http://grid.hust.edu.cn/ssdu08>]
- PC member of Special Session on Security & Privacy in Pervasive Computing environments (SPPC-2008) at the 2nd International Conference on Information Security and Assurance [<http://www.sersc.org/ISA2008/SPPC2008>]
- PC member of the 2nd International Conference on Emerging Security Information, Systems and Technologies, organizing track on ECOSEC: Ecosystem Security and Trust [<http://www.iaia.org/conferences2008/SECURWARE08.html>]
- Special issue reviewer of Springer's Computer Communications journal. Special issue on "Secure Multi-Mode Systems and Their Applications for Pervasive Computing" (2008)
- Special issue reviewer of Springer's Service Oriented Computing and Applications journal. Special issue on "Collaboration Services" (2008)
- TPC member of 1st OPAALS workshop, November 26-27 2007, Rome, Italy [<http://oks.opaals.org/website/conference.php>]

**COMPUTER SKILLS:**

Programming Languages: Java, C/C++, Pascal.

Security Standards: X.509 (PKI/PMI), SAML, XACML.

## PUBLICATIONS:

### JOURNALS

- [1] H. KOSHUTANSKI AND A. MAÑA, Interoperable Semantic Access Control for Highly Dynamic Coalitions. *Security and Communication Networks*, Vol. 3, No. 3, pp. 41-71. Wiley-Blackwell. 2010.
- [2] H. KOSHUTANSKI, A. LAZOUSKI, F. MARTINELLI AND P. MORI, Enhancing Grid Security by Fine-grained Behavioral Control and Negotiation-based Authorization. *International Journal of Information Security*, Vol. 8, No. 4, pp. 291-314. August 2009.
- [3] H. KOSHUTANSKI, A Survey on Distributed Access Control Systems for Web Business Processes. *International Journal of Network Security (IJNS) Vol. 9, No. 1*. pp. 61-69. 2009.
- [4] H. KOSHUTANSKI, M. ION AND L. TELESKA, Towards User-centric Identity Interoperability for Digital Ecosystems. *International Journal on Advances in Security (IJAS) Vol. 1, No. 1*. 2008, 26:38, <http://www.iariajournals.org/security>
- [5] H. KOSHUTANSKI AND F. MASSACCI, Interactive Access Control for Autonomic Systems: from Theory to Implementation. *ACM Transactions on Autonomous and Adaptive Systems (TAAS) Vol. 3, No 3*. August 2008.
- [6] H. KOSHUTANSKI AND F. MASSACCI, A Negotiation Scheme for Access Rights Establishment in Autonomic Communication. *Journal of Network and Systems Management (JNSM) Vol. 15, No. 1*. March 2007.

### BOOK CHAPTERS

- [1] L. TELESKA AND H. KOSHUTANSKI, A Trusted Negotiation Environment for Digital Ecosystems. In F. Nachira, P. Dini, A. Nicolai, M. Le Louarn, L. Rivera León (Eds.) *Digital Business Ecosystems*. November 2007. European Commission press.
- [2] H. KOSHUTANSKI AND F. MASSACCI, Interactive Access Control and Trust Negotiation for Autonomic Communication. In Francine Herrmann and Djamel Khadraoui (Eds.) *Advances in Enterprise Information Technology Security*. June 2007. IGI press.

### CONFERENCES AND WORKSHOPS

- [1] H. KOSHUTANSKI AND A. MAÑA, A Semantic Approach to Access Control and Automated Credential Negotiation for Decentralized Online Repositories / An OKKAM Project Use Case, In *proceedings of the 5th Workshop on Semantic Web Applications and Perspectives (SWAP2008)*. December 15-17, 2008, Rome, Italy. CEUR Workshop Proceedings, ISSN 1613-0073, online [http://ceur-ws.org/Vol-426/swap2008\\_submission\\_49.pdf](http://ceur-ws.org/Vol-426/swap2008_submission_49.pdf)
- [2] M. ION, H. KOSHUTANSKI, V. HOYER AND L. TELESKA, Rating Agencies Interoperation for Peer-to-Peer Online Transactions. In *proceedings of the 2nd International Conference on Emerging Security Information, Systems and Technologies (SECURWARE'08)*, August 2008, Cap Esterel, France. IEEE press.

- [3] M. ION, A. DANZI, H. KOSHUTANSKI AND L. TELESKA, A Peer-to-Peer Multidimensional Trust Model for Digital Ecosystems. In *proceedings of the 2nd IEEE International Conference on Digital Ecosystems and Technologies (IEEE-DEST 2008)*, February 2008, Phitsanulok, Thailand. IEEE press..
- [4] H. KOSHUTANSKI, M. ION AND L. TELESKA, A Distributed Identity Management Model for Digital Ecosystems. In *proceedings of the 1st International Conference on Emerging Security Information, Systems and Technologies (SECURWARE'07)*, October 2007, Valencia, Spain. IEEE press. **(Best papers award)**
- [5] M. ION, L. TELESKA, F. BOTTO AND H. KOSHUTANSKI, An Open Distributed Identity and Trust Management Approach for Digital Community Ecosystems. In *International Workshop on ICT for Business Clusters in Emerging Markets*, June 2007, Michigan State University. Co-located with Communities and Technologies (C&T 2007) Conference. [online proceedings]
- [6] H. KOSHUTANSKI, F. MARTINELLI, P. MORI, L. BORZ AND A. VACCARELLI, A Fine-grained and X.509-based Access Control System for Globus. In *proceedings of the International Symposium on Grid computing, high-performAnce and Distributed Applications (GADA'06)*, November 2006, Montpellier, France. Springer-Verlag press.
- [7] H. KOSHUTANSKI, F. MARTINELLI, P. MORI AND A. VACCARELLI, Fine-grained and History-based Access Control for Autonomic Grid Services. In *proceedings of the 2nd International Conference on Automatic and Autonomous Systems (ICAS'06)*, July 2006, Silicon Valley, California. IEEE Press. **(Best papers award)**
- [8] H. KOSHUTANSKI AND F. MASSACCI, Interactive Credential Negotiation for Stateful Business Processes. In *proceedings of the 3rd International Conference on Trust Management (iTrust 2005)*, May 2005, Rocquencourt, France. LNCS 3477, pp. 257-273. Springer-Verlag press.
- [9] H. KOSHUTANSKI AND F. MASSACCI, E Pluribus Unum: Deduction, Abduction and Induction, the Reasoning Services for Access Control in Autonomic Communication. In *proceedings of the 1st IFIP TC6 WG6.6 International Workshop on Autonomic Communication (WAC)*, October 2004, Berlin, Germany. LNCS 3457, pages 179-190. Springer-Verlag press.
- [10] H. KOSHUTANSKI AND F. MASSACCI, Interactive Access Control for Web Services. In *proceedings of the 19th IFIP Information Security Conference (SEC)*, August 2004, Toulouse, France. pages 151-166. Kluwer press.
- [11] H. KOSHUTANSKI AND F. MASSACCI, An Interactive Trust Management and Negotiation Scheme. In *proceedings of the 2nd International Workshop on Formal Aspects in Security and Trust (FAST)*, August 2004, Toulouse, France. pages 139-152. Kluwer press.
- [12] H. KOSHUTANSKI AND F. MASSACCI, A System for Interactive Authorization for Business Processes for Web Services. In *proceedings of the 4th International Conference on Web Engineering (ICWE)*, July 2004, Munich, Germany. pages 521-525. Springer-Verlag press.
- [13] H. KOSHUTANSKI AND F. MASSACCI, An Access Control Framework for Business Processes for Web Services. In *proceedings of ACM Workshop on XML*

*Security*, October 31, 2003, George Mason University, Fairfax VA, USA. pages 15-24. ACM press.

- [14] H. KOSHUTANSKI AND F. MASSACCI, An Access Control System for Business Processes for Web Services. *Nordic Workshop on Secure IT Systems (NORDSEC)*, October 15-17, 2003, Gjøvik University College, Norway. pages 143-150.
- [15] H. KOSHUTANSKI AND F. MASSACCI, A Logical Model for Security of Web Services. *1st International Workshop on Formal Aspects in Security and Trust (FAST)*, September 8-9, 2003, Pisa, Italy. Editors: Theo Dimitrakos and Fabio Martinelli. Technical Report: IIT TR-10/2003, pages 1-8.

#### MAGAZINES

- [1] H. KOSHUTANSKI AND A. MAÑA, Highly Dynamic Coalitions – drive forward eBusiness. *eStrategies magazine, issue 9*, Special Theme: “GRID, Is it ready for business?”. British Publishers. February 2009. <http://www.projects.eu.com>
- [2] H. KOSHUTANSKI AND F. MASSACCI, Interactive Access Control and Trust Negotiation for Autonomic Communications. *ERCIM News, No 63, Special Theme: Security and Trust Management*. October 2005.