Universidad de Alcalá

PUBLICACIONES DERIVADAS DE LAS TESIS DEFENDIDAS EN EL PROGRAMA DE DOCTORADO EN TECNOLOGÍAS DE LA INFORMACIÓN Y LAS COMUNICACIONES EN EL AÑO 2020

DISEÑO E IMPLEMENTACIÓN DE HERRAMIENTAS SOFTWARE PARA ATAQUES POR CANAL LATERAL A DISPOSITIVOS CRIPTOGRÁFICOS

Autor/a Fuentes Rodriguez, Alberto

Fecha de defensa 11/12/2020

Fuentes, A., Hernández, L., Martín, A., and Alarcos, B. (2015). Design of a set of software tools for side-channel attacks. IEEE Latin America Transactions, 13(6):1966–1978.

Fuentes Rodríguez, A. (2018). DPA toolbox. https://github.com/fuentessec/RamDPA (last accessed June 2020). (document),

Fuentes Rodríguez, A., Hernández Encinas, L., Martín Muñoz, A., and Alarcos Alcázar, B. (2013). Diseño de un conjunto de herramientas software para ataques por canal lateral. In Actas del VII Congreso Iberoamericano de Seguridad Informática.

Fuentes Rodríguez, A., Hernández Encinas, L., Martín Muñoz, A., and Alarcos Alcázar, B. (2014). A toolbox for DPA attacks to smart cards. In Herrero, Á., Baruque, B., Klett, F., Abraham, A., Snášel, V., de Carvalho, A. C., Bringas, P. G., Zelinka, I., Quintián, H., and Corchado, E., editors, Proceedings of the International Joint Conference SOCO'13-CISIS'13-ICEUTE'13, pages 399–408. Springer International

Fuentes Rodríguez, A., Hernández Encinas, L., Martín Muñoz, A., and Alarcos Alcázar, B. (2016). Design and optimization of the input modules of a DPA toolbox. Logic Journal of the IGPL, 24(1):16–28.

Fuentes Rodríguez, A., Hernández Encinas, L., Martín Muñoz, A., and Alarcos Alcázar, B. (2017). Generación de valores intermedios de forma paralela en ataques DPA. In Actas del IX Congreso Iberoamericano de Seguridad Informática.

Fuentes Rodríguez, A., Luis Hernández Encinas, L., Martín Muñoz, A., and Alarcos Alcázar, B. (2019). A modular and optimized toolbox for side-channel analysis. IEEE Access, 7(18484862):1966–1978.

Universidad de Alcalá

EXPERIMENTAL CHARACTERIZATION OF THE AIR DECONTAMINATION SYSTEM COUNTERFOG

Autor/a Llerena Aguilar, Francisco Jose

Fecha de defensa 01/12/2020

J.L. Pérez-Díaz, F.J. Llerena-Aguilar, T. Martín-Pérez, J.Sánchez García Casarrubios, E. Ruiz Navas, I.Valiente-Blanco (2019). Decontamination of Diesel particles from air by using the Counterfog system. Air Quality, Atmosphere & Health. March 2019. 12 (3): 305-310 ttps://doi.org/10.1007/s11869-018-00656-7

T. Martín-Pérez, F.J. Llerena-Aguilar, J.Pérez-Serrano, J.L. Copa-Patiño, J. Solivieri de Carranza, J.M. Orellana-Muriana, J.L. Pérez-Díaz. Eco- friendly air decontamination of biological warfare agents using “Counterfog” system. 1st Scientific International Conference on CBRNE SICC 2017 Proceedings. ISBN: 978-3-319-91791-7

J.Sánchez-García-Casarrubios, F.J. Llerena-Aguilar, J.L. Pérez-Díaz. Fog Dynamics. 1st Scientific International Conference on CBRNE SICC 2017 Proceedings. ISBN: 978-3-319-91791-7

Universidad de Alcalá

IMPROVEMENT OF DETECTION AND TRACKING TECHNIQUES IN MULTISTATIC PASSIVE RADAR SYSTEMS (MEJORA DE TÉCNICAS DE DETECCIÓN Y SEGUIMIENTO EN SISTEMAS RADAR PASIVOS MULTIESTÁTICOS)

Autor/a Gomez del Hoyo, Pedro Jose

Fecha de defensa 24/11/2020

DVB-T receiver independent of channel allocation with frequency compensation for improving resolution in low cost passive radar; Authors: Gómez del Hoyo, Pedro José; Jarabo-Amores, M.P.; Mata-Moya, D.; Rey-Maestre, N.; Rosa-Zurera, M.; IEEE Sensors Journal

Machine learning techniques for coherent CFAR detection based on statistical modeling of UHF passive ground clutter Authors: del-Rey-Maestre, N., Jarabo-Amores, M. P., Mata-Moya, D., Barcena-Humanes, J. L., del Hoyo, P. G.; Journal : IEEE Journal of Selected Topics in Signal Processing, Vol. 12, Issue 1, pp. 104-118, Feb. 2018.

Passive Radar Array Processing with Non-Uniform Linear Arrays for Ground Target's Detection and Localization Authors: Nerea Del-Rey-Maestre, David Mata-Moya, Maria-Pilar Jarabo-Amores, Pedro-Jose Gómez-del-Hoyo, Jose-Luis Bárcena-Humanes, Javier Rosado-Sanz; Remote Sensing, Vol. 9, Issue 7, paper 756, July 2017

IDEPAR: A multichannel DVB-T passive radar technological demonstrator in terrestrial radar scenarios Authors: Maria-Pilar Jarabo-Amores, Jose-Luis Bárcena-Humanes, Pedro Gómez-del-Hoyo, Nerea Rey-Maestre, Diego Juara-Casero, Fco-Javier Gaitán-Cabañas, David Mata-Moya, IET Radar, Sonar & Navigation, Vol. 11, Issue 1, pp. 133-141, 2017

Feasibility Study of EO SARs as Opportunity Illuminators in Passive Radars: PAZ-Based Case Study Jose-Luis Bárcena-Humanes, Pedro-José Gómez-Hoyo, Maria-Pilar Jarabo-Amores, David Mata-Moya, Nerea Del-Rey-Maestre; Sensors, Vol. 15, Issue 11, pp. 29079- 29106, 2015

Passive radar distributed sensor network for detecting silent aerial and maritime targets in coastal waters. Authors: M.P. Jarabo-Amores, David Mata-Moya, N. ,del Rey-Maestre, P. Gómez-del Hoyo. In NATO SET-284 Specialists' Meeting on Enhanced Situation Awareness using Active-Passive Radar Systems in Military Scenarios

Universidad de Alcalá

PREDICTION OF VEHICLE INTENTIONS FOR ADVANCED AUTONOMOUS DRIVING

Autor/a Izquierdo Gonzalo, Ruben

Departamento Teoría de la Señal y Comunicaciones

Fecha de defensa 05/11/2020

2020 Simple Baseline for Vehicle Pose Estimation: Experimental Validation, H. Corrales, A. Hernández, R. Izquierdo, N. Hernández, I. Parra, D. F. Llorca, IEEE Access.

2020 Fail-aware LIDAR-based odometry for autonomous vehicles, I. G. Daza, M. Rentero, C. Salinas, R. Izquierdo, N. Hernández, A. Ballardini, D. F. Llorca, Sensors.

2020 License Plate Corners Localization Using CNN-Based Regression, D. F. Llorca, H. Corrales, I. Parra, M. Rentero, R. Izquierdo, A. Hernández, I. García-Daza, Lecture Notes in Computer Science.

2018 High-Level Interpretation of Urban Road Maps Fusing Deep Learning-Based Pixelwise Scene Segmentation and Digital Navigation Maps, C. Fernández, J. Muñoz-Bulnes, D. F. Llorca, I. Parra, I. García-Daza, R. Izquierdo, M. A. Sotelo, Journal of Advanced Transportation.

2016 The Experience of DRIVERTIVE-DRIVERless cooperative VEhicle-Team in the 2016 GCDC, Alonso, Ignacio Parra and Izquierdo, Rubén and Alonso, Javier and García- Morcillo, Álvaro and Fernández-Llorca, David and Sotelo, Miguel Ángel, IEEE Transactions on Intelligent Transportation Systems.

2020 Vehicle Trajectory Prediction in Crowded Highway Scenarios Using Bird Eye View Representations and CNNs, Izquierdo, Rubén and Quintanar, Álvaro and Parra, Ignacio and Fernández-Llorca, David and Sotelo, Miguel Ángel, 2020 IEEE Intelligent Transportation Systems Conference (ITSC).

2020 Two-Stream Networks for Lane-Change Prediction of Surrounding Vehicles, D. F. Llorca, M. Biparva, R. Izquierdo, J. K. Tsotsos, 2020 IEEE Intelligent Transportation Systems Conference (ITSC).

2020 The PREVENTION Challenge: How Good Are Humans PredictingLane Changes?, A. Quintanar, R. Izquierdo, I. Parra, D. F. Llorca, M. A. Sotelo, 2020 IEEE Intelligent Vehicle Symposium 2020 (IV).

2019 Experimental validation of lane-change intention prediction methodologies based on CNN and LSTM, Izquierdo, Rubén and Quintanar, Álvaro and Parra, Ignacio and Fernández-Llorca, David and Sotelo, Miguel Ángel, 2019 IEEE Intelligent Transportation Systems Conference (ITSC).

2019 The PREVENTION dataset: a novel benchmark for PREdiction of VEhicles iNTentIONs, Izquierdo, Rubén and Quintanar, Álvaro and Parra, Ignacio and Fernández-Llorca, David and Sotelo, Miguel Ángel, 2019 IEEE Intelligent Transportation Systems Conference (ITSC).

Universidad de Alcalá

CONTRIBUCIÓN AL DISEÑO Y EVALUACIÓN DE CONMUTADORES AVANZADOS BASADOS EN PROTOCOLOS DE EXPLORACIÓN DE CAMINOS

Autor/a Alvarez Horcajo, Joaquin

Fecha de defensa 26/10/2020

Álvarez-Horcajo, Joaquin; Martínez-Yelmo, Isaías; Rojas, Elisa, Carral; Juan Antonio y López-Pajares, Diego (2017). New cooperative mechanisms for software defined networks based on hybrid switches. Transactions on Emerging Telecommunications Technologies, 28(8), e3150. (JCR Q3) [11]

Álvarez-Horcajo, Joaquín; López-Pajares, Diego; Arco, José Manuel ; Carral, Juan Antonio y Martínez-Yelmo, Isaías (2017). TCP-Path: Improving load balance by network exploration. IEEE 6th International Conference on Cloud Networking (CloudNet), 1-6. (conference with Best Paper Award) [12]

Rojas, Elisa; Álvarez-Horcajo, Joaquín; Martínez-Yelmo, Isaías; Carral, Juan Antonio y Arco, José Manuel (2018). TEDP: An enhanced topology discovery service for software-defined networking. IEEE Communications Letters, 22(8), 1540-1543. (JCR Q2) [13]

Álvarez-Horcajo, Joaquín; López-Pajares, Diego; Martínez-Yelmo, Isaías; Carral, Juan Antonio y Arco, José Manuel (2019). Improving multipath routing of TCP flows by network exploration. IEEE Access. (JCR Q1) [14]

E. L. Fernandes, E. Rojas, J. Álvarez-Horcajo, Z. L. Kis, D. Sanvito, N. Bonelli,C. Cascone, and C. E. Rothenberg, The Road to BOFUSS: The basic OpenFlow userspace software switch, Journal of Network and Computer Applications, vol.165,

Universidad de Alcalá

ONLINE ANALYSIS OF STREAMING VIDEOS FOR HUMAN ACTION UNDERSTANDING

Autor/a Baptista Rios, Marcos

Departamento Teoría de la Señal y Comunicaciones

Fecha de defensa 15/10/2020

Embarrassingly Simple Model for Early Action Proposal Marcos Baptista Ríos, R. J. López-Sastre, F. J. Acevedo-Rodríguez, S. Maldonado-Bascón, European Conference on Computer Vision Workshops (ECCVW) - 2018

The Instantaneous Accuracy: a Novel Metric for the Problem of Online Human Behaviour Recognition in Untrimmed Videos Marcos Baptista Ríos, R. J. López-Sastre, Fabian Caba Heilbron, Jan C. van Gemert, F. J. Acevedo-Rodríguez, S. Maldonado-Bascón, International Conference on Computer Vision Workshops (ICCVW) – 2019

Rethinking Online Action Detection in Untrimmed Videos: A Novel On-line Evaluation Protocol Marcos Baptista Ríos, R. J. López-Sastre, Fabian Caba Heilbron, Jan C. van Gemert, F. J. Acevedo-Rodríguez, S. Maldonado-Bascón, IEEE Access - 2019

Unsupervised Action Proposals Using Support Vector Classifiers for Online Video Processing Marcos Baptista Ríos, R. J. López-Sastre, F. J. Acevedo-Rodríguez, Pilar Martín-Martín, S. Maldonado-Bascón, Sensors - 2020

Universidad de Alcalá

EFFICIENT MANAGEMENT OF ROAD INTERSECTIONS FOR AUTOMATED VEHICLES ¿ THE FRFP SYSTEM APPLIED TO THE VARIOUS TYPES OF INTERSECTIONS AND ROUNDABOUTS

Autor/a Filocamo , Basilio

Fecha de defensa 09/06/2020

Filocamo, A. Galletta, M. Fazio, J. A. Ruiz, M. Á. Sotelo and M. Villari, "An Innovative Osmotic Computing Framework for Self Adapting City Traffic in Autonomous Vehicle Environment," 2018 IEEE Symposium on Computers and Communications (ISCC), Natal, 2018, pp. 01267-1270.

Filocamo, B.; Ruiz, J.A.; Sotelo, M.A. Efficient Management of Road Intersections for Automated Vehicles—The FRFP System Applied to the Various Types of Intersections and Roundabouts. Appl. Sci. 2020, 10, 316.

A. Buzachis, B. Filocamo, M. Fazio, J. A. Ruiz, M. Á. Sotelo and M. Villari, "Distributed Priority Based Management of Road Intersections Using Blockchain," 2019 IEEE Symposium on Computers and Communications (ISCC), Barcelona, Spain, 2019, pp. 1159-1164

Universidad de Alcalá

TÉCNICA DE MAGNETIZACIÓN MULTIPOLAR 2D DE IMANES PARA ENGRANAJES MAGNÉTICOS MICROMÉTRICOS

Autor/a Martinez Muñoz, Miriam

Fecha de defensa 13/01/2020

M. Muñoz-Martínez, E. Diez-Jimenez, G. Villalba Alumbreros, M. Michalowski, A.Lastra-Sedano (2019) Geometrical Dependence in Fixtures for 2D Multipole Micromagnets Magnetization Pattering, Applied Computational Electromagnetics Society Journal, vol: 34, Nº7 , Pags: 1092-1101 (JCR Q4)

M. Muñoz-Martínez, E. Diez-Jimenez, M. J. Gómez-García, R. Rizzo, A. Musolino (2019) Torque and Bearing Reaction Forces Simulation of Micro-Magnetic Gears, Ap-plied Computational Electromagnetics Society Journal, vol: 34, Nº4 , Pags: 541-546, (JCR Q4)

Martinez-Muñoz M., Diez-Jimenez E., Sanchez-Montero R., Lopez-Espi, P.L., Martinez-Rojas J.A., (2019) Analysis of the geometric parameters influence in PCB fixtures for 2D multipole magnetization patterning of thin layer micro-magnets, International Journal of Applied Electromagnetics and Mechanics, vol 61, 59-71, DOI: 10.3233/JAE-180121, (JCR Q4)

Diez-Jimenez, E; Sanchez-Montero, R., Martinez-Munoz, M.; (2018) Towards Miniaturization of Magnetic Gears: Torque Performance Assessment, Micromachines, Vol. 9, Nº1, 10.3390/mi9010016 (JCR Q1)