

**Name:** KISON. Research group on K-ryptography and Information Security for Open Networks.

**Knowledge area description:**

The research lines of the group include on one side the security of wireless networks (especially those ad-hoc networks using non-regulated bands) and on the other side the protection of the copyright of digital multimedia content (audio and video).

**Group researchers:**

Joan Arnedo Moreno (Universitat Oberta de Catalunya)  
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**Selected list of publications:**

• **Journal Articles**

MEGÍAS, D., HERRERA-JOANCOMARTÍ J., MINGUILLÓN, J. (2005) "Total Disclosure of the Embedding and Detection Algorithms for a Secure Digital Watermarking Scheme for Audio". *Information and Communication Security (ICICS'05)*, Lecture Notes in Computer Science 3783, pp. 427-440.

MEGÍAS, D., HERRERA-JOANCOMARTÍ, J. MINGUILLÓN, J. (2004) "Robust Frequency Domain Audio Watermarking: a Tuning Analysis" *International Workshop on Digital Watermarking - IWDW'04*. LNCS 3304. pp. 244-258. Oct. 04. Berlin: Springer-Verlag.

MEGÍAS, D. HERRERA-JOANCOMARTÍ, J. MINGUILLÓN. J. (2003) "A Robust Audio Watermarking Scheme Based on MPEG 1 Layer 3 Compression" *Communications and Multimedia Security - CMS'03*. LNCS 2828. pp. 226-238. Oct. 03. Springer-Verlag. Berlin.

MINGUILLON, J. HERRERA-JOANCOMARTI, J. MEGIAS, D. (2005) "Robust watermarking scheme based on the JPEG2000 standard" *Journal of Electronic Imaging*. VOI 14 (3) Art. No. 033015 Jul-Sep 2005. ISSN. 1017-9909.

- **Book Chapters**

CASTELLÀ-ROCA, J. HERRERA-JOANCOMARTÍ, J. DORCA, A (2006) "A Secure E-Exam. Management System". In International Conference on Availability, Reliability and Security (ARES 2006). IEEE Press. Vienna. Austria.

HERRERA-JOANCOMARTÍ, J., PRIETO BLÁZQUEZ, J., CASTELLÀ ROCA, J. (2004) "A secure electronic examination protocol using wireless networks" In Information Technology: Coding and Computing (ITCC -04). pp. 263-267. Apr. 04. IEEE Press.

MEGÍAS JIMÉNEZ, D. HERRERA-JOANCOMARTI, J. SERRA I RUIZ, J. MINGUILLÓN ALFONSO, J. (2006) "A benchmark assessment of the WAUC watermarking audio algorithm" In SPIE conference, at the Security, Steganography, and Watermarking of Multimedia Contents VIII, T/SPIE Symposium on Electronic Imaging. Jan. 06. San Jose USA. (to be published)

- **Books**

BARNI, M. HERRERA-JOANCOMARTÍ, J. KATZENBEISSER, S. PÉREZ-GONZALEZ, F. (Eds) (2005). "Information Hiding" 7th International Workshop, IH 2005, Barcelona, Spain, June 6-8, 2005, Revised Selected Papers. *Lecture Notes in Computer Science* 3727. Berlin. Germany. IS BN: 3- 540-29039-7

- **Conference contributions**

ARNEDO, J. HERRERA-JOANCOMARTÍ, J. (2006) "Modeling different scenarios for group access" In Actas de la IX Reunión Española de Criptología y Seguridad de la Información. Barcelona (Spain). Set.06. (in press)

MINGUILLÓN, J. HERRERA-JOANCOMARTÍ, J. MEGÍAS, D. SERRA , J. SERRA-SAGRISTÀ, J. AND GARCÍA-VÍLCHEZ, F.(2005) "Influence of Mark Embedding Strategies on Lossless Compression of Ultraspectral Images". In Proceedings of the 25th International Geoscience and Remote Sensing Symposium (IGARSS 05).

**Current projects:**

Project name	Funding Program
PROPRIETAS-WIRELESS. Digital watermarking of multimedia contents and hyperspectral images.	CICYT
MULTIMARK. Protection of intellectual PROperty and PRIVacy ovEr mulTicAst mobile ad-hoc networks.	CICYT
ECRYPT. European Network of Excellence in Cryptology .	VI Programa Marc

***Link to the group website:***

<http://kison.uoc.edu>