

# GUTI

UNIVERSITY GROUP FOR  
IDENTIFICATION  
TECHNOLOGIES

UC3M

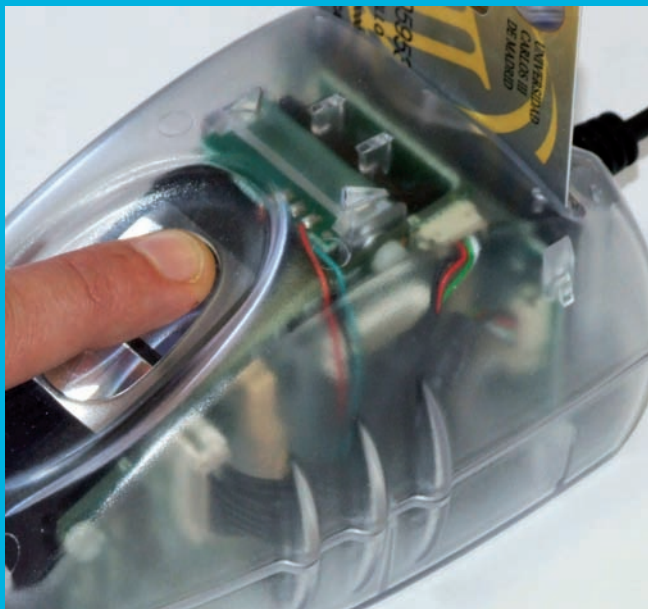
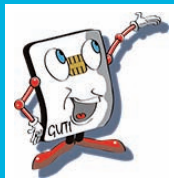
R E S E A R C H G R O U P S

Image: UC3M photographic files



Universidad  
Carlos III de Madrid  
[www.uc3m.es](http://www.uc3m.es)





*Biometric*

The University Group for Identification Technologies, led by Dr. Raúl Sánchez Reillo, is formed by a team of 5 lecturers and 11 R&D researchers. The research activity of the group focuses on identifying people in different environments (Identification Devices focusing on smartcards and RFID, Information Security and Biometrics). GUTI also works extensively in the field of standardization and holds the Chair of the Spanish Biometric Identification Subcommittee (SC37).

## • RESEARCH LINES •

- Identification Devices (especially smart-cards and RFID), since 1994.
- Security and Cryptographic Mechanisms (both secret and public key), since 1995.
- Biometric Identification Systems, since 1996:
  - Biometric Modalities: Iris, Hand Geometry, Vascular systems, Handwritten Signature and Fingerprint.
  - Multibiometrics: multimodality, multi-sensor, multi-algorithm. Both Fusion and Complementarity.
  - Integration of Biometrics in Smartcards and Tokens.
  - Securing Biometrics: process, storage, communications, etc.
- Testing Methodology: both in performance and in security.

## • OUTSTANDING COLLABORATIONS AND PROJECTS •

The group collaborates with a wide variety of companies and institutions, including the Directorate General of the Spanish Civil Guard, National Intelligence Center (Ministry of Defense), National Social Security Institute (INSS), National Mint and Stamp Factory, Metro de Madrid, National Institute for Aerospace Technology (INTA), SIGNE, S.A., TELDAT, S.A., and SAETIC, S.A.



Power source

Some of the projects of the group are:

- BEST NETWORK: Biometric European Stakeholders NETWORK  
*Funding entity: European Union. Date: 2009-2010.*
- BioSec: Biometrics and Security  
*Funding entity: European Union. Date: 2003-2005.*
- Improving Biometric Identification and Evaluating its Security (PIBES)  
*Funding entity: Ministry of Education and Science. Date: 2006-2009.*
- CARSIM: Communication Architecture for Rapid and Secure Crisis Management Centre  
*Funding entity: Ministry of Education and Science. Date: 2007-2008*
- ConfIDent: Dynamic Confident Identity Management  
*Funding entity: Ministry of Education and Science. Date: 2007-2008*

- EMOCION: Recognition by means of body odor in the internet of the future and its securitization.

*Funding entity: Ministry of Industry, Tourism and Trade. Date: 2009-2011*

- iSEC: Confidential information printing control solution

*Funding entity: Ministry of Industry, Tourism and Trade. Date: 2009-2010*

- ESDIB: Security Evaluation in Biometric Identification Devices.

*Funding entity: Autonomous Community of Madrid, Universidad Carlos III de Madrid. Date: 2009.*



*Pulse Generator*



*Iris Biometric Identification*



*Protocols Analyser USB*

## • INNOVATIVE TECHNOLOGICAL SOLUTIONS •

- Biometric Identification Technologies.
- Evaluation Methodology for the Functionality and Security of different Identification Systems (following the Common Criteria methodology).



*Soldering iron/ Welded seams vacuum cleaner*

## • SCIENTIFIC-TECHNICAL SERVICES •

- Functional Identification Systems Evaluation
  - Biometric
  - Smartcards
- Security Evaluation according to Common Criteria
  - Preparing Protection Profiles
- Creating Evaluation Methodology
- Consultancy, Research and Development in Identification Systems
- National and International Standardization



*Soldering iron/ Welded seams vacuum cleaner*

## • TECHNOLOGICAL EQUIPMENT •

### · Identification Systems Testing Laboratory (IDT Testing Lab)

This laboratory is located in the Science Park facilities of the Universidad Carlos III de Madrid and contains the following equipment:

- Test Chamber + Moisture Module
- Digital Multimeter
- 100 ms/s, 1 mb wave generator
- Ca-dp-4 fire-resistant cabinets
- Controlled omnidirectional lighting system for performance testing

### · Laboratory

- Wave generator
- Digital oscilloscope
- USB protocol analyzer
- Ethernet protocol analyzer
- Biometric identification devices for different modalities (Iris, vascular, fingerprint, handwriting, etc)



*Iris' Camera for biometric identification*



*Iris' Camera for biometric identification*

Science Park Universidad Carlos III de Madrid

Technology Transfer Office

Tel +34 916244023/4011 · Fax +34916244097.

E-mail [comercializacion@pcf.uc3m.es](mailto:comercializacion@pcf.uc3m.es)

Web [www.uc3m.es](http://www.uc3m.es)

# GUTI

## *Contact Information*

HEAD RESEARCHER  
Raúl Sanchez-Reillo

E-MAIL  
[rsreillo@ing.uc3m.es](mailto:rsreillo@ing.uc3m.es)

WEB  
<http://guti.uc3m.es/>



Universidad  
Carlos III de Madrid  
[www.uc3m.es](http://www.uc3m.es)

IMAGE OF COVER: *Self-portrait*  
*Irene Fernández*