

# Security & Privacy Research: Act of Following

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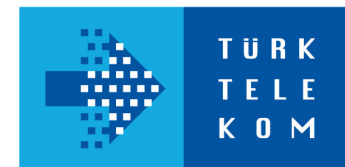
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# Projects

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- ▶ **SSPayWMN: Secure and Seamless Payment for Wireless Mesh Networks**
  - ▶ Prepaid system for broadband access in the metropolitan area.
  - ▶ Multiple operators, no fixed binding to a particular operator.
    - ▶ Seamless roaming among operators without reauthentication
  - ▶ The operators may unintentionally overcharge their users. Users may unfairly dispute charges. Thus a payment scheme that is fair to both users and the operators is inevitably needed.
  - ▶ Preserving anonymity of users.



# Projects

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- ▶ **Security Infrastructure for Mobile Sensor Networks**
  - ▶ Wide range of applications
    - ▶ Single phase, multiphase MWSNs, underwater VWSNs
  - ▶ Focus is on non-cryptographic solutions
  - ▶ Using mobility for the sake of security



# New Network and Computing Paradigms

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- ▶ Security researchers
  - ▶ Followers
- ▶ Need to understand the paradigms shifts
- ▶ Mostly wireless
- ▶ Previously
  - ▶ MANETs, Sensor Networks, VANETs,
- ▶ Currently
  - ▶ Mesh Networks, RFID, CPS, Cognitive Radio
- ▶ Future
  - ▶ Nanonetworking
- ▶ “Mobility” as the research keyword
  - ▶ Even have the power of reviving old research topics



# Geographical and Political Trends

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- ▶ **Aging population in Europe**
  - ▶ E-health is getting more and more popular
    - ▶ Privacy issues
    - ▶ Several projects going on at European-level
  - ▶ Europe will be more open to collaborations
  
- ▶ **Politics and Physical Security**
  - ▶ Always go along with cyber security and privacy

# How to

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- ▶ Increase US Middle-east collaborations?
- ▶ Need to come face-to-face
- ▶ More visits
- ▶ Bilateral agreements for joint research projects between national funding bodies
  - ▶ Mostly open call, mostly not restricted to a particular topic, mostly funds only travel among the partner
- ▶ IRSES
  - ▶ FP7 Marie Curie Actions for Mobility
  - ▶ Includes countries outside Europe (some Middle East countries and the USA)

# Thanks

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