



# **Sensor Network Research in Europe**

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# Multidisciplinarity

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- Research areas:
    - Hardware aspects
    - Distributed, embedded, real-time, dependable systems
    - Data management
    - Distributed systems
    - Security, privacy
  - Vertical integration
    - Energy efficiency
    - Security, privacy
  - Social implications
  - Industry involvement, standardization
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- Collaboration!**

# Local Projects

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- Blue\*, TU Karlsruhe, Germany
- Scatterweb, FU Berlin, Germany
- Senets, U Rostock, Germany
- SEMA, Yeditepe U, Turkey
- SWARMS, U Kiel, Germany
- ...

# National Projects

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- AVM: Autonomous Distributed Microsystems
  - [www.pb.izm.fhg.de/hdi/020\\_projects/020\\_avm](http://www.pb.izm.fhg.de/hdi/020_projects/020_avm)
  - Germany
  - Hardware issues: energy supply, communication, system integration rice-grain size
- ENVISENSE: Centre for Pervasive Computing in the Environment
  - [envisense.org](http://envisense.org)
  - UK
  - Application oriented: monitoring environmental phenomena with sensor networks

# National Projects

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- NCCR-MICS: Competence Centre for Mobile Information and Communication Systems
  - [www.nccr-mics.ch](http://www.nccr-mics.ch)
  - Switzerland
  - Many aspects (math tools, ..., applications) of self-organizing ad hoc and sensor networks
- VICOM: Virtual Immersive Communications
  - [www.vicom-project.it](http://www.vicom-project.it)
  - Italy
  - Communication system architecture for mobile virtual immersive services

# European Projects

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- EYES: Energy Efficient Sensor Networks
  - [www.eyes.eu.org](http://www.eyes.eu.org)
  - EU 5FP
  - Algorithms, protocols for energy-efficient networking, collaboration, self-configuration
- SEWING: System for European Water Monitoring
  - [www.sewing.mixdes.org](http://www.sewing.mixdes.org)
  - EU 5FP
  - Application oriented: system for monitoring water quality with sensor networks

# This Workshop

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- Bring together people with different backgrounds in sensor networks
- Help build up European sensor network community
- Discuss key issues in **European** sensor network research
  - Applications
  - Hardware/software platforms and testbeds
  - Research challenges
- Enjoy!