Consorzio di Ricerca per l'Energia, l'Automazione e le Tecnologie dell'Elettromagnetismo

www.create.unina.it

- Non-profit research organisation founded in 1992 with the aim of establishing a strong link between industry and academia
- Current partners
  - Ansaldo Energia S.p.A.
  - Università degli Studi della Basilicata
  - Università degli Studi della Campania Luigi Vanvitelli
  - Università degli Studi di Cassino e del Lazio Meridionale
  - Università degli Studi di Napoli Federico II
  - Università degli Studi di Napoli Parthenope
  - Università degli Studi Mediterranea di Reggio Calabria
- Financial resources from partners' funds and additional funding raised through research projects and company consulting

The Consortium Activities

- Computational Electromagnetism and Applications
- Digital Innovation Hub
- Non-destructive Evaluation
- Nuclear Fusion Technology
- **Robotics**
- Superconducting Magnets Technology

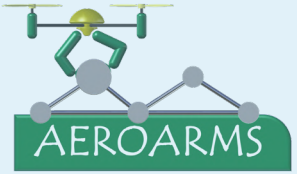
The PRISMA Team

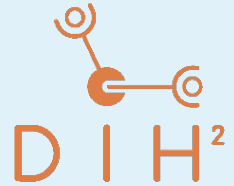
- 3 full professors, 3 associate professors, 2 assistant professors
- 7 post-docs, 14 phd students, 10 support staff
- 1.4 M€ financial support a year (from competitive research projects)
- 10 patents
- Collaboration with more than 150 foreign institutions & companies

www.prisma.unina.it

Our EU Projects Research Portfolio

- Funding > 18 M€ in the last 15 years

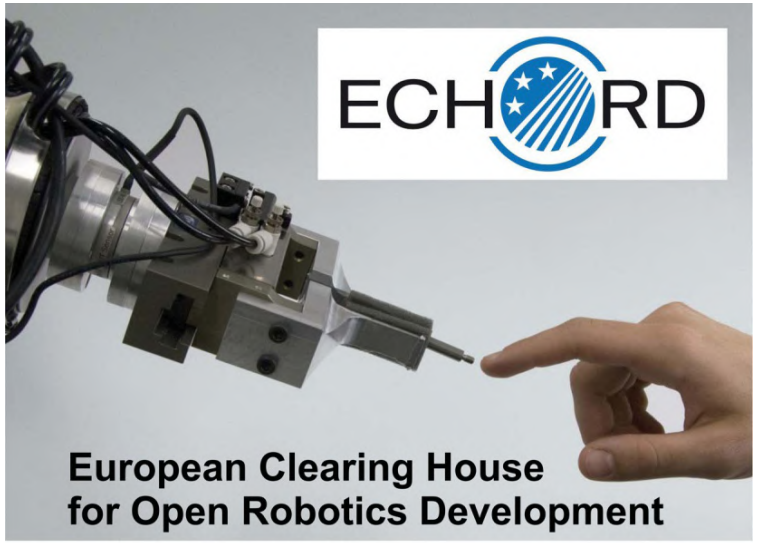




Our Research Agenda

- Aerial robotics
- Anthropomorphic hands
- Bimanual manipulation
- Force control
- Human–robot interaction
- Redundant manipulators
- Service robotics
- Soft robotics
- Surgical robotics
- Visual control

The Precursor for Financial Support of Third Parties



Large-scale integrating project ICT-231143 supported by the European Commission under the 7th Framework Programme (01.01.2009 – 30.06.2012).
ECHORD is an innovative framework aimed at facilitating knowledge advancement and technology transfer between academia and industry in European robotics. Manufacturers and research groups will have the chance to perform jointly small-size projects (experiments) which can be rapidly negotiated, funded and executed.

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- Target-oriented research and technology transfer with tangible results
- Small-scale experiments (12–18 months) proposed by industry, academia, or both
- Quick evaluation of proposals and negotiation
- Equipment to be bought from a list with special prices
- Lower entrance barriers (industry and integrators of SME size)
- Reduce “fear of contact” with funding organisations

The Largest EU Robotics Challenges Programme

- Three industry relevant challenges
  - Reconfigurable interactive manufacturing cell
  - Shop floor logistics and manipulation
  - Plant inspection and servicing
- Within an open call framework, three stages of increasing complexity
- 15 use-case driven application experiments
- 6 final challengers
- Benchmarking and performance evaluation
- Customizable robot applications

The EU Initiative to Digitalise Manufacturing Industry

- Expand the digital innovation of manufacturing SMEs
  - Innovative technologies in Robotics, HPC, Additive manufacturing, CPS and IoT
  - Open calls for funding and technical assistance to support digital transformation
  - Best practices to being more competitive
  - Skills catalogue and access to training opportunities and materials
  - Disruptors awards to best digitisation cases
  - Acceleration program with training support on raising funds and matchmaking with peers
- One of the key initiatives to shape the pan-European network of **Digital Innovation Hubs**

Digital Innovation Hub

- **Competence Centres**
  - CREATE (key player in EU Robotics) + others in Campania, Lazio, Basilicata and Calabria
- **Activities/Services**
  - Technical support
  - Access to users
  - Training and education
  - Network development
  - Ecosystem building and networking
  - Dissemination and awareness
- **Focus on Innovation**
  - TRL 5 – technology validated in relevant environment
  - TRL 6 – technology demonstrated in relevant environment
  - TRL 7 – system prototype demonstration in operational environment