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ICT COST Action 284

Innovative Antennas for Emerging Terrestrial and Space-based Applications

Descriptions are provided by the Actions directly via e-COST.

The main objectives of the Action were to progress and innovate in the theoretical modelling and in the multidisciplinary design and development of new architectures, components, circuits, and test techniques for antennas. The foci were on antenna arrays, on active and adaptive antennas, and on their beam forming, in support of broadband applications up to millimetre waves.

Further objectives included:

To foster University-Industry research cooperation in the field of antenna modelling and innovation and to increase the number of cooperative research projects, in particular involving trainees and doctorate candidates placed in industrial laboratories.

To consolidate and expand a network of European specialists from academia and industry on antennas, in coordination with relevant COST Actions and other European research activities, e.g. within the IST programme and ESA.

COST 284 has demonstrated its capability to achieve an efficient connection between researchers of academia, together with industry and companies. Among the major outcomes of the Action were the launching of a network of excellence (ACE) which has strong links with COST 284, and the creation of a major European Conference in the area of antennas (EUCAP).

Furthermore, the following topics stemming from the Action can be regarded as special achievements:

- Transmitting and receiving optical beam forming networks
- Controlled radar cross section
- Novel multibeam antennas for space applications
- Novel fed horn developments
- Phase synthesis method for conformal array antennas
- EBG multibeam antenna using metallised foam
- Tri-corner reflector antenna
- Integrated lens antenna shaping for submillimetre waves

The networking between the Action members brought solid results like benchmarking of conformal antenna design tools and free exchange of non commercial simulation software, or benchmarking of antenna measurement techniques. The very positive feeling of the work carried out had undoubtedly a fruitful effect in terms of structuring and impetus given to antenna research in Europe, as witnessed by the more than one thousand participants to EUCAP's first edition in 2006.

Information and Communication Technologies COST Action 284

- ▶ **Description**
- ▶ Parties
- ▶ Management Committee



General Information*

Chair of the Action:
[Prof. Juan R. MOSIG](#) (CH)

DC Rapporteurs:
[Prof. Otto KOUELKA](#) (AT)

Science officer of the Action:
[Mr Ralph STUEBNER](#)

Administrative officer of the Action:
[Ms Aranzazu SANCHEZ](#)

Downloads*

Action Fact Sheet
[Download AFS as .RTF](#)

Memorandum of Understanding
[Download MoU as PDF](#)

Final Report
[Download Final Report as PDF](#)

Websites*

Action website:
<http://www.cost284.com>

Domain website:
<http://www.cost.eu/ict>

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Publications

- ▶ [Innovative Antennas for Emerging Terrestrial & Space-based Applications](#)