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Database on patents, antenna research, professional associations and antenna conferences

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Abstract

This deliverable aims to provide exhaustive lists and databases on patents, antenna research, professional associations and antenna conferences related to the antenna engineering in Europe

Keyword List

Patents, Professional associations and antenna conferences for ACE VCE

1 - Association of Professional Engineers in Electrical and Electronic Sciences

Engineers and scientists specialized in antennas are generally included in the “Communications Engineering” community which is one of the branches of the Electrical and Electronic Engineering. In Europe, national institutions or associations gather the professional engineers of each country.

Most associations aim to fulfill the following goals:

- represents the profession of electrical, electronic, manufacturing and systems engineering and related sciences.
- acts as the voice of the profession in matters of public concern and assists Government to make the public aware of technological issues.
- sets standards of qualifications for professional electrical, electronics, software, systems and manufacturing engineers.
- accredits degree courses in subjects relevant to electrical, electronic, manufacturing and information engineering at universities and colleges around the world.
- accredits professional development schemes for engineering graduates.
- awards scholarships, grants and prizes.
- issues regulations for the safe installation of electrical and electronic equipment and takes a leading part in the formulation of national and international standards.
- provides an extensive range of lectures, meetings, conferences, seminars, residential vacation schools and publications.
- sets standards for the professional conduct of its members.
- assists Government to make the public aware of technological issues.
- offers guidance on best practice in professional development.
- operates a Career Advisory Service to give advice and assistance to members on various aspects of career development.
- operates a Learning Resources Service to provide details of potential professional development activities provided by both the institution and other organisations.
- operates a computer-assisted information service, Inspec, which has the world's largest computerised database in the English language in physics, electrotechnology, computer science and control engineering.
- provides business and technical information on electrical, electronic, IT and manufacturing subjects.

Members who join together dedicated institutions to promote the advancement of electrical, electronic and manufacturing science and engineering, range from students to the most distinguished and highly qualified members of the profession.

The list below contains the websites of most electrical institutions in Europe.

- Austria - Österreichischer Verband für Elektrotechnik (ÖVE)
- Belgium - Société Royal Belge des Electriciens (SRBE/KVBE)
- Belgium - Association des Ingénieurs Electriciens sortis de l'Institut Electrotechnique Montefiore (AIM)
- Denmark - Dansk Ingeniøforening (DIF)
- Denmark - Ingeniør-Sammenslutningen (IS)
- Finland - Aatteellisten sähköinsinöörijärjestöjen neuvottelukunta (ASN/CPER)
- France -Société des Electriciens et des Radioelectriciens (SEE)
- Germany - Verband Deutsche Elektrotechniker eV (VDE)
- Hungary - Scientific Society for Telecommunications, Hungary)
- Ireland - Institution of Engineers Ireland (IEI).
- Italy - Associazione Elettrotecnica ed Elettronica Italiana (AEI)

- Netherlands - Koninklijk Instituut van Ingenieurs (KIVI)
- Netherlands - Nederlands Elektronica en Radiogenootschap (NERG)
- Norway - Norsk Eletroteknisk Førening (NEF)
- Poland - Stowarzyszenie Elektryków Polskich (SEP)
- Portugal - Ordem dos Engenheiros (ODE))
- Spain - Asociacion Electrotecnica Española (AEE)
- Sweden - Svenska Elektro- och Dataingenjörers Riksförening (SER)
- Switzerland - Schweizerischer Ingenieur und Architekten Verein (SIA)
- Switzerland - Schweizerischer Elektrotechnischer Verein (SEV)
- United Kingdom - The Institution of Electrical Engineers (IEE)

2 – Database on patents

2-1 European Patent Office (EPO)

(http://www.european-patent-office.org)

The European Patent Office (EPO) grants European patents for the contracting states to the European Patent Convention (EPC), which was signed in Munich on 5 October 1973 and entered into force on October 1977. It is the executive arm of the European Patent Organisation, an intergovernmental body set up under the EPC, whose members are the EPC contracting states. The European Patent Organisation is the outcome of the European countries' collective political determination to establish a uniform patent system in Europe. The activities of the EPO are supervised by the Organisation's Administrative Council, composed of delegates from the contracting states

There are more than four million patents in force in the world today, and every year applications are filed for a further 800 000 inventions. Patent protection is sought in an average of nine countries per invention. In 2004, the EPO received over 178 000 patent applications. When carrying out its patent searches, the EPO has access to 56 million documents from over 70 countries. About 50 countries have to some extent or another brought their patent systems into line with the model provided by the European Patent Convention,and many others throughout the world have been influenced by it.

The European Patent Organisation's *esp@cenet*® service provides access to over 50 million patent documents from more than 70 countries free of charge via the Internet. Once a European patent application has been published, its file is open to inspection. This means that anyone can view the EPO communications, applicant's responses and amendments to the application contained in the file. epoline®, the EPO's e-service system, allows users to access this procedural information free of charge via the Internet.

The cooperation setup in 1983 by the EPO, the United States Patent and Trademark Office (USPTO) and the Japan Patent Office (JPO) in the field of industrial property is known as the "Trilateral Cooperation".

2-2 IP Offices of the EPO member states

31 states are currently members of the European Patent Organisation. The websites of the associated National Intellectual Property Offices (IPO) are listed below

Austrian Patent Office
Bulgaria - Bulgarian Patent Office
Belgian Patent Office (Ministry of Economic Affairs)
Czech Republic - Industrial Property Office
TheDepartment of the Registrar of Companies and Official Receiver (D.R.C.O.R.) of the Republic of Cyprus
Danish Patent Office
Estonia - The Estonian Patent Office
Oficina **Española** de Patentes y Marcas
National Board of Patents and Registration of **Finland**
Institut National de la Propriété Industrielle (**France**)
German Patent and Trademark Office / Deutsches Patent- und Markenamt
Greek Industrial Property Organisation
Hungarian Patent Office
The **Icelandic** Patent Office

Irish Patents Office
Italian Patent and Trademark Office
Patent Office of the Republic of **Latvia**
The State Patent Bureau of the Republic of **Lithuania**
Service de la Propriété Intellectuelle (**Luxembourg**)
Direction de l'Expansion Économique - Division de la Propriété Intellectuelle (**Monaco**)
Bureau voor de Industriële Eigendom (The **Netherlands**)
Patent Office of the Republic of **Poland**
Portuguese Patent Office
Romanian State Office for Inventions and Trademarks
Slovak Republic - Industrial Property Office
Slovenian Intellectual Property Office
Swedish Patent and Registration Office
Swiss Federal Institut of Intellectual Property
Turkish Patent Institute
United Kingdom Patent Office

A number of other countries are expected to become members in due course.

AL – Albania
BA - Bosnia and Herzegovina
HR - Croatia
MK - former Yugoslav Republic of Macedonia
YU - Serbia and Montenegro (formerly known as the Federal Republic of Yugoslavia)

2-3 PATLIB centres

PATLIB stands for PATent LIBrary. A joint creation of the national patent offices of the EPO member states and their regional patent information centres, the PATLIB network is made up of patent information centres located throughout Europe. It was set up with the aim of improving communication and co-operation between individual centres and promoting patent information awareness and the provision of services to the public. There are currently about 300 centres altogether, although this number is constantly growing. The PATLIB centres were created to provide users with local access to patent information and related issues. The centres have qualified and experienced staff who offer practical assistance on a variety of Intellectual Property Rights (IPR).
Working in the language of the country concerned, they are familiar with the needs and requirements of local industry, agriculture and trade, and are able to provide valuable information services, especially to small and medium-sized enterprises, private inventors and academics.

Patent information centres located throughout the Member States of the European Patent Convention provide the opportunity for the public to consult information on patents. This directory contains the addresses of patent information centres belonging to a selected list, provided by the appropriate national patent office.

Directory of PATLIB Centers

AT - Austria
BE - Belgium
BG - Bulgaria
CY - Cyprus
CZ - Czech Republic
DK - Denmark
EE - Estonia
FI - Finland
FR - France
DE - Germany
GR - Hellenic Republic
HU - Hungary
LI - Liechtenstein
LT - Lithuania
LU - Luxembourg
MC - Monaco
NL - Netherlands
PL - Poland
PT - Portugal
RO - Romania
SK - Slovakia
SI - Slovenia
ES - Spain
SE - Sweden

IS - Iceland
IE - Ireland
IT - Italy
LV - Latvia
CH - Switzerland
TR - Turkey
GB - United Kingdom

The European Patent Office (EPO) actively supports the PATLIB network within the framework of its co-operation policy with the national patent offices in the member states. This support is tailored to the specific needs and requirements of the staff of the national offices, the patent information centres, and their end users. Each year the EPO spends € 7,5 million on supporting the dissemination of patent information in Europe

2-4 Patent databases

• ***esp@cenet***® - a free online searchable database comprising over **50 million patent documents** from around the world (worldwide database)
• **European Publication Server** - This page provides free access to all EP documents published on a weekly basis according to the decision of the President of the EPO dated 22 December 2004
• Aurigin Systems, Inc.
• AIDS Patents
• Biotechnology and US patents
• Brivit database - offering access to a complete bibliography of published Switched Reluctance Machine (SRM) papers and patents irrespective of language.
• Bulletin of the German Patent and Trademark Office in the Internet (Patentblatt)
• Bunsan-service
• Canadian Intellectual Property Office patent databases
• Centro de Innovación e Transferencia de Tecnoloxía (Santiago de Compostella)
• Data Star
• Delphion Intellectual Property Network
• Dialog Corporation
• Dolphin
Database of all Pharmaceutical Inventions (DOLPHIN) is a product under development by Current Patents Ltd
• European Coating Patents Database
• Fachinformationszentrum Karlsruhe (**STN**)
• Freepatentsonline - perhaps the best non-pay site for searching US patents on the web
• FILDATA - Italian Patent, utility model and design model database
• French jurisprudence database
• GenericsWeb - generic pharmaceutical patent intelligence.
• IFI CLAIMS Patent Services
• Internet Multicasting Service
• IPSearchEngine™ - by Patentcafe.com, Inc. search Patents, Non-Patent Art, Trademarks
• ipr-village - IPR Portal des WILA Verlags
•Jiangxi information institute of science and technology, Nanchang ,CHINA
• Japan Patent Information Organization (**JAPIO**)
• Lexis-Nexis
• MicroPatent PatSearch™ FullText
• Minesoft - the **PatBase** patent database
• PatCite
• PCT-Gazette
• Questel.Orbit
• Q-PAT - (QUESTEL.ORBIT)
• Patent & Know-how Information Division
• patolis-web
• SIP GmbH - Search4IP - a free patent search, worldwide database with relevance ranking and text clipping.

- **surfIP.com**: Intellectual Property Office of Singapore portal
- UBC Library Canadian Patent Index PATSCAN
- Univentio
- University "St Cyril and Methodius"
- US Patent Bibliographic Data
- U.S. Patent Citation Database

3 - List of major European Organizations (companies and universities) including antenna research activies

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IMEC	B	W. De Raedt	deraedt@imec.be
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4 - Synthesis of the antenna conference database –Year 2006

Three conferences specifically dedicated to Antennas

1/ EuCAP 2006 - First European Conference on Antennas and Propagation

Nice, France, 6 - 10 November 2006
1st European Conference on Antennas and Propagation - EuCAP 2006

The first European Conference on Antennas and Propagation (EuCAP 2006) is organised by the European Network of Excellence ACE, under the EU 6th Framework Programme (FP6) and is co-sponsored by the European Space Agency (ESA). As a further step in the ACE efforts to structure and coordinate antenna research in Europe, EuCAP will provide a forum for the European R&D communities in the Antennas & Propagation area, both at academic and industrial levels.

EuCAP is supported by the top level Associations in Antennas & Propagation, and, in the spirit of AP2000, it regroups the former JINA and ICAP conferences, two ESA Workshops on Satellite Antennas and Propagation and the final Workshop of the EC COST Action 284 on Antennas.

EuCAP will continue beyond 2006 as a regular keystone event on Antennas and Propagation, with a large participation of the world community which is kindly invited to join.

2/ LAPC - Loughborough Antennas and Propagation Conference

Loughborough University, UK, April 11-12, 2006
Loughborough Antennas & Propagation Conference - LAPC 2006

Following a highly successful inaugural event in 2005, the second Loughborough Antennas & Propagation Conference will be held on 11-12 April 2006 in Burleigh Court Conference Hotel. The event will provide a cost effective opportunity for the presentation, discussion and promotion of research on contemporary topics in our specialities.

LAPC 2006 will focus on fresh ideas for technology in applications and theory for both academia and commerce throughout the international community.

3/ Antenn 06 - Nordic Antenna Symposium

Linköping, Sweden, 30 May – 1 June
Nordic Antenna Symposium - ANTENN 06

Antenn 06 is a Nordic antenna symposium, covering every type of antenna technology, application, theory and measurement. It is the latest in a series of antenna symposiums held every three years in different locations in Sweden.

The symposium is organised by the Swedish Defence Materiel Administration (FMV), and is supported by SNRV, the Swedish URSI National Committee. The aim of the symposium is to bring together people designing or using antennas in industry, research laboratories, universities, operating companies, and administrations.

Topics for the symposium comprise every form of antenna and antenna application. New developments such as broadband, multibeam, adaptive, conformal, and photonic bandgap antennas are of great interest. RF wave propagation is also included.

Signal processing and design and analysis tools are covered to the extent that they are applied to antennas or antenna functions.

Medium generalist conferences on microwaves or Electromagnetics including several sessions devoted to antennas

1/ International Joint Conference of 4th ESA Workshop on MillimetreWave Technology and Applications, 8th Topical Symposium on Millimeter Waves TSMMW2006, 7th MINT MillimeterWave International Symposium MINTMIS2006

MilliLab, Espoo, Finland, February 15-17, 2006
4th ESA Workshop on Millimetre Wave Technology and Applications / The 8th Topical Symposium on Millimeter Waves - TSMMW2006 / The 7th MINT Millimeter-Wave International Symposium - MINT-MIS2006

A unique joint millimetre-wave event of three international conferences will be arranged by European Space Agency (ESA), MilliLab (Finland), NICT (Japan), and MINT (Korea). The aim of the conference is to bring together people involved in research and industrial development of millimetre-wave components and systems for space and terrestial use, and to explore common areas and synergies in the development of millimetre-wave techniques for commercial and scientific applications.

2/ German Microwave Conference - GeMiC 2006

Universität Karlsruhe (TH), Germany, March 28 - 30, 2006
German Microwave Conference - GeMiC 2006

Topics:
Passive Circuits and Components
Filters and Multiplexers
Microwave and Millimetre-Wave ICs, Packaging and Interconnects
Active Device Modelling, Circuits and Systems
Microwave Optoelectronics
MEMS
Broadband and Ultra Wide Band and High-Speed Circuits
New Materials (PBG, Negative Refractive Index Materials, …)
EM Field Theory and Numerical Techniques
Linear and Non-linear CAD Techniques
Antennas
Propagation Effects
Microwave, Millimetre-Wave and Sub-Millimetre-Wave Measurements
Electromagnetic Compatibility and Biological and Medical Effects
Millimetre-Wave and Sub-Millimetre-Wave Components, Circuits and Systems
Radars, Sensors, and Imaging Systems
Industrial, Medical, Telecommunication, Space and Transportation Systems and Applications

Large generalist conference on microwaves or Electromagnetics including several sessions devoted to antennas

9th European Microwave Week

Manchester , UK, 10-15 September, 2005
European Microwave Week

The European Microwave Week combines:
Four Major Conferences
34th European Microwave Conference
European Gallium Arsenide and other Compound Semiconductors Application Symposium
European Conference on Wireless Technology
European Radar Conference
Associated Workshops
Short Courses
Exhibitor workshops
A Leading International Tradeshow

European Microwave Week 2004 continues the series of successful microwave events following Amsterdam (1998), Munich (1999), Paris (2000), London (2001), Milan (2002), Munich (2003) Amsterdam (2004) and Paris (2005), , with its 7th Exhibition and Conference Week. In October 2004 it is set to return to Amsterdam, Netherlands.

Conferences and Workshops on Electronic Compatibitily, Wireless Communication with antenna related topics

1/ 12th European Wireless Conference "Enabling Technologies for Wireless Multimedia Communications"

Athens, Greece , April 2 - 5, 2006
12th European Wireless Conference - Enabling Technologies for Wireless Multimedia Communications - EW 2006

The European Wireless 2006 Conference focuses on technologies, protocols, services and applications that will enable a full seamless and nomadic user access to new classes of multimedia services with a user-centric focus. Service provision will occur at the home, at the workplace, at leisure and during travel. The vision is to integrate the wireless local area and next generation cellular networks and develop the next generation of future wireless communication. Such networks will enable the provision of ubiquitous wireless services, which will become more and more innovative as they are driven by the consumer demands of the user and as a result of competition between the service providers.

2/ EUSAR 2006 – 6th European Conference on Synthetic Aperture Radar

16-18 May 2006, International Congress Center, Dresden
6th European Conference on Synthetic Aperture Radar

EUSAR, the European Conference on Synthetic Aperture Radar, is an international conference dedicated to SAR techniques, technology and applications. EUSAR has accompanied the worldwide evolution of high resolution imaging radar, both airborne and spaceborne, and has helped to establish an international community of SAR engineers and scientists.

3/ MMA 2006 - Microwave Materials And Their Applications

Oulu, Finland, 12–15 June 2006
University of Oulu, Microelectronics and Materials Physics Laboratories
Microwave Materials And Their Applications - MMA 2006

The aim of the Conference MMA2006 is to allow the participants to present the most recent results and to exchange ideas on the advancements in the research, development and applications of microwave materials. The conference concentrates on, but is not limited, to the following subjects:
Chemistry, physics, structural determination and processing of dielectric, ferroelectric, piezoelectric, ferromagnetic, low temperature co-fired ceramic (LTCC) or composite materials with advantageous properties for microwave applications.
Performance measurement, characterization and modelling techniques of microwave materials.
Microwave applications including passive and active components, packaging technology, integrated modules and future trends and markets

4 - Synthesis of the antenna conference database – Years 2004-2005

Three conferences specifically dedicated to Antennas

JINA
Periodicity: Biennial conference (even year)
Location: Nice (France)
Audience:
Organised by France Telecom R&D
Format: invited keynote speakers plus posters and exhibition.

ICAP
Periodicity: conference (odd year)
Location: different places in England, mostly Universities
Audience
Organised by IEE
Format: invited keynote speakers and four parallel sessions of oral presentations plus posters and exhibition.

International ITG Conference on Antennas (INICA)
Periodicity: triennial
Location: Germany?
Audience: 200 participants
Organised by ITG
Format: workshops, exhibitions and lectures

Medium generalist conferences on microwaves or Electromagnetics including several sessions devoted to antennas

ICEAA
Periodicity: Biennial
Location: Torino
Audience:
Organised by Politecnico di Torino and by the Istituto Superiore Mario Boella
Format:

ICECom
Periodicity: conference (odd year)
Location: Dubrovnik (Croatia)
Audience: 234 Authors
Organised by KoREMA (Croatian Society for Communications, Computing, Electronics, Measurement and Control)
Format:

ANTEM
Periodicity:
Location:
Audience:
Organised by

Format:

EUROEM 2004, Euro Electromagnetics
Periodicity:
Location:
Audience:
Organised by
Format:

Mediterranean Microwave Symposium (MMS)
Periodicity: Every year
Location: Mediterranean cities
Audience:
Organised by
Format:

International Kharkov Symposium "Physics and Engineering of Microwaves, Millimeter and SubMillimeter Waves" (MSMW)
Periodicity: Triennial (04-07)
Location: Kharkov (Ukrainia)
Audience: 300
Organised by the Institute for Radio Physics and Electronics and the Institute of Radio Astronomy of NAS of Ukraine and the Kharkov National University
Format: Invited papers+conference+posters

Large generalist conferences on microwaves or Electromagnetics including several sessions devoted to antennas

EuMc
Periodicity: Every year
Location: Yearly rotation between Amsterdam, Munich, London, Paris
Audience
Organised by
Format

URSI International Symposium on Electromagnetic Theory
Periodicity: Triennial event (last one Pisa 2004)
Location: various cities around the world,
Audience: 464 papers submitted 421 selected
Organised by: Commission B, *"Fields and Waves"*, of the International Union of Radio Science (*URSI*)
Format

PIERS
Periodicity:
Location: various cities around the world,
Audience: 800 submitted abstracts
Organised by: The Electromagnetics Academy
Format

MIKON
Periodicity: Every year
Location: Various cities in Poland
Audience:
Organised by:
Format

European workshops and seminars specifically devoted to antennas and organised by European Institutions, Universities or Agencies

Cost Workshops
Periodicity: Aperiodical. Approximately twice a year
Location: Various cities in Europe
Audience: 30/Workshop
Organised by
Format:

ESA Antenna Workshops
Periodicity:
Location: Noordwijk, The Netherlands
Audience:
Organised by ESA-ESTEC
Format:

Antenna Measurements and SAR (AMS)
Periodicity:
Location:
Audience:
Organised by
Format: Include workshops and short courses

European Workshop on Conformal Antennas
Periodicity: Biennial
Location: rotation
Audience:
Local organisation for each edition: University of Karlsruhe, Germany. TNO-FEL (The Hague), FGAN-FHR (Bonn), Royal Institute of Technology (Stockholm)
Format:

Generalist conferences on Computational methods in Electromagnetics including several sessions devoted to antenna problems

International Conference on Computation in Electromagnetics
Periodicity:
Location:
Audience:
Organised by
Format:

European Congress on Computational Methods in Applied Sciences and Engineering, (ECCOMAS)
Periodicity: Every 4 years
Location:
Audience:
Organised by
Format:

Sixth International Conference on Computational Methods for the Solution of Electrical and Electromagnetic Engineering Problems (Electrocomp)
Periodicity: Triennial
Location: American and European cities
Audience:

Organised by: Wessex Institute of Technology
Format:

International Workshop on Finite Elements for Microwave Engineering, Antennas, Circuits and devices

Periodicity:
Location: American and European cities
Audience:
Organised by
Format:

International Symposium on Interdisciplinary Electromagnetic, Mechanic & Biomedical Problems (ISEM)

Periodicity: Every year
Location: Japan, Korea, Europe
Audience:
Organised by
Format:

International Conference on Mathematical Methods in Electromagnetic Theory (MMET)

Periodicity: Biennial (04-06)
Location: Ukraine
Audience: 180 participants, 110 papers
Organised by IEEEE East Ukraine joint chapter
Format: Invited+posters+conf

Conferences and Workshops on Electronic Compatibitily, Wireless Communication with antenna related topics

Joint COST 273/284 Workshop on Antennas and Related System Aspects in Wireless

Periodicity:
Location:
Audience:
Organised by
Format:

ITG Workshop on Smart Antennas

Periodicity: Aperiodical
Location: Germany
Audience:
Organised by German Universities in cooperation with the Information Technology Society (ITG) of the Association for Electrical, Electronic and Information Technologies (VDE)
Format:

ICU IEEE International Conference on Ultra-Wideband

Periodicity:
Location:
Audience:
Organised by the Swiss Federal Institute of Technology (ETH Zurich) and IBM Research GmbH, Zurich Research Laboratory
Format:

International Conference on 3G Communication technologies

Periodicity:
Location: London, headquarters of the IEE
Audience: Several hundred delegates
Organised by IEE
Format: parallel technical sessions and panel discussions

IEEE INTERNATIONAL SYMPOSIUM ON PERSONAL, INDOOR AND MOBILE RADIO COMMUNICATIONS (PIMRC)

Periodicity:
Location:
Audience: 480 participants, , 613 papers
Organised by IEEE Communication Society Chapter
Format:

IST Mobile & Wireless Communications Summit

Periodicity:
Location:
Audience:
Organised by
Format:

International Zurich Symposium on Electromagnetic Compatibility

Periodicity:
Location: Zurich
Audience:
Organised by
Format:

International Workshop on Electromagnetic Compatibility of Integrated Circuits

Periodicity:
Location:
Audience:
Organised by
Format:

EMC Europe 2004, International Symposium on Electromagnetic Compatibility

Periodicity:
Location: European cities
Audience:
Organised by
Format:

4 - Description of Antenna conferences

13th International Symposium on Antennas, JINA2004

8-10 November 2004, Nice, France

Objectives:

- JINA is now officially sponsored by URSI and the IEEE Antennas and Propagation Society.
- Since 1984, JINA has been organized as a biannual event, providing an international forum for antenna scientists and engineers.
- This symposium addresses a broad spectrum of research activities in areas such as communications satellite antennas, antennas for mobiles, printed active arrays, and signal processing antennas. Other, more specific topics include radar cross section (RCS), non-linear effects in antennas, and industrial and medical applications.
- Expanding needs in international and personal communications as well as the emergence of new microwave applications are continuing to drive research efforts in both theory and experiment, from antenna modeling and numerical simulation to practical realizations and the design of novel radiating structures.
- The work presented at JINA is expected to provide a comprehensive overview of evolutionary trends in communications and radar antennas, with contributions from the scientific and industrial communities.

Topics:

• Theoretical electromagnetics • Analytic and numerical techniques • Synthesis and optimization • Detection, inverse scattering, microwave imaging • Radar cross section • Integration, coupling and interaction, EMC • Feeds, reflector antennas and lenses • Antennas for space applications (telecommunications, navigation, ...) • Radiating elements and associated circuits • Millimetre and sub-millimetre wave antennas • Reflect arrays • Conformal antennas • New materials, meta-materials • Electromagnetic bandgap structures (EBG)	• Frequency selective surfaces • Active and integrated antennas (MEMS, ...) • Small antennas • Multifrequency and/or wideband antennas • Antennas for mobile communications (UWB, WLAN, WIFI, ...) • Onboard antennas (aircrafts, UAV, UCAV, ships, ...) • Array antennas • Digital beamforming • Adaptive and signal processing antennas (MIMO, ...) • Industrial and medical applications • Measurements and instrumentation • Power handling, PIMP • Biological interactions

Sponsored by:

12th International Conference on Antennas and Propagation, ICAP2003

31st March - 3rd April 2003, University of Exeter

The International Conference on Antennas and Propagation (ICAP) has become one of the most popular series of events for the global Antennas and Propagation community. ICAP 2003, the first major conference of the new Antennas and Propagation Professional Network, will offer the well established and preferred ICAP format of invited keynote speakers and four parallel sessions of oral presentations plus posters and exhibition. There will also be a new feature to the conference, offering delegates the opportunity to attend four tutorial sessions covering a range of hot topics.

Although business conditions for some of the existing application areas for antennas and propagation are somewhat harsh at present, new applications for the core concepts are emerging all the time. The winners will be those that have the engineering skills to combine the best from industry, academia and government. For this to happen, engineers need to be well informed about the broad applications as well as the new advances in their subject.

Over the years the ICAP series has proved to be a most effective means of achieving this by bringing together people from around the world to exchange ideas and information. We encourage you not to miss this opportunity to learn about the latest innovations in Antennas and Propagation.

The subject of Antennas and Propagation remains very exciting, covering such diverse application areas as radar, satellite and terrestrial communications and scientific exploration. The challenge and the opportunities for the A&P community comes from the increasing stringent specifications at higher frequency for scientific/military applications, as well as from mass market applications, such as mobile communications and broadband wireless access. The demand for novel antennas and improved propagation models is always increasing and the challenge comes from reducing the cost per unit and the increased complexity of planning tools.

A new feature to the conference, the opportunity to attend one of four tutorial sessions covering a range of hot topics.

International Conference on Applied Electromagnetic and Communications, ICECom

Dubrovnik, Croatia, 12-14 October 2005

What is ICECom?

ICECom is an international conference with a long tradition of gathering professionals from industry and academia. It was first organized in mid 1970s and is since 1997 held biennially in Dubrovnik, Croatia. It provides an international environment for the presentation of new research results and interaction between scientists and researchers from universities and industry.

The Conference is organized by KoREMA (Croatian Society for Communications, Computing, Electronics, Measurement and Control), with technical co-sponsorship from IEEE Region 8, IEEE Croatia Section and IEEE AP/MTT Croatia Joint Chapter and in co-operation with the University of Zagreb, Faculty of Electrical Engineering and Computing, Ministry of Science and Technology of the Republic of Croatia and International Center of Croatian Universities.

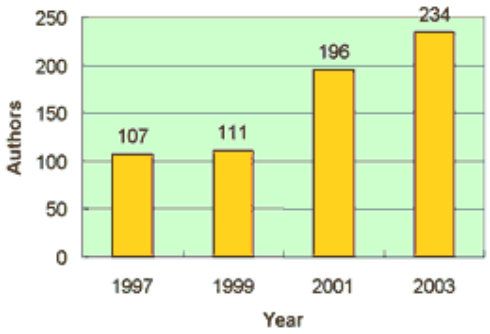
Scope:

The scope of this biennial Conference focuses on advancements and innovations in electromagnetics and communication technology. Invited are papers on the conference topics that will foster interactions among researchers and practitioners from academia and industry in antennas and propagation, microwaves, wireless and optical communications, and other related fields.

The Conference provides an international forum for exchanging ideas, discussing new technologies and informing the engineering community on the state-of-the-art in electromagnetic engineering and communication technologies

The conference policy is to be opened for new and emerging areas in electromagnetics and their possible applications in wireless communications that is not only, but most obviously realized by redefining the conference topics for each new edition. The new areas should be discussed by experts from various institutions, which could help in defining future research and possible applications.

The strategical interest is to maintain and improve biannual gatherings in the field of electromagnetics in the south-east of Europe, thus allowing knowledge transfer, exchange of ideas and personal contacts of scientists and researchers from Europe and the rest of the world. The other strategical goal is to improve the interaction between the academic community and industry in order to apply new technological results in production and to promote electromagnetics, antennas and nanotechnologies in future wireless communication systems.



International ITG Conference on Antennas, INICA 2003

Berlin, Germany, September 17-19, 2003

We expect about 200 participants, whose interest is focussed on antenna engineering, as well as related topics.

The aim of the symposium is to present and discuss the state of the art of the antenna world, including new concepts, trends, developments, technologies and components.

We are looking for exhibitors and contributors willing to present their knowledge and technologic capabilities at the INICA 2003 in September.

There are several workshops in the INICA program beside the exhibitions and lectures.

International Conference on Electromagnetics in Advanced Applications (ICEAA05)

September 12-16, 2005 Torino, Italy

The ninth edition of the biennial International Conference on Electromagnetics in Advanced Applications (ICEAA 05) will consist of invited and contributed papers, as well as workshops and short courses.

The Conference is supported by the Politecnico di Torino and by the Istituto Superiore Mario Boella, with the principal technical cosponsorship of the IEEE Antennas and Propagation Society. Other technical cosponsors include the IEEE Electromagnetic Compatibility and Electron Devices Societies, the International Union of Radio Science (URSI), and the IEIIT – CNR.

TOPICS

1. Active and smart antennas
2. Electromagnetic applications to biomedicine
3. Electromagnetic applications to nanotechnology
4. Electromagnetic measurements
5. Electromagnetic modeling of devices and circuits
6. Electromagnetic packaging
7. Electromagnetic properties of materials
8. EMC/EMI/EMP
9. Finite methods
10. Frequency selective surfaces
11. Integral equation methods
12. Intentional EMI
13. Inverse scattering and remote sensing
14. Microwave antennas
15. MIMO antenna systems
16. Optoelectronics and photonics
17. Phased and adaptive arrays
18. Plasma and plasma-wave interaction
19. Printed and conformal antennas
20. Radar cross section and asymptotic techniques
21. Radar imaging
22. Radomes
23. Random and nonlinear electromagnetics
24. Statistics in electromagnetics
25. Technologies for mm and sub-mm waves
26. Wireless communications

Sponsored by:

Consorzio per la Ricerca e l'Educazione Permanente
COREP

Politecnico di Torino 1859 1906

ISMB Istituto Superiore Mario Boella

AP S

IEEE

URSI

CONSIGLIO NAZIONALE DELLE RICERCHE

11th International Symposium on Antenna Technology and Apply Electromagnetics (ANTEM 2005)

St Malo, France, June 15-17, 2005

The following topics on Antennas and Electromagnetics and other topics relating to URSI Commissions are of interest:

- Analytic and Numerical Methods
- Antenna Theory and Design
- Astronomical Observations at Radio Wavelengths
- EBG Structures
- EMI/EMC
- EM Pollution and Biological Effects
- Guided Waves
- Ionospheric Radio and Propagation
- Materials Testing and Microwave
- Instrumentation
- Measurement Techniques
- Medical Applications
- Metamaterials
- Micromachining for Microwave Systems
- Microstrip Integrated and Active Antennas
- Microwave Devices and Circuits
- Microwave and Millimeter Wave Antennas
- MIMO Radio Channels and Mobile Radio Communication Systems
- Modelling and EM-CAD Tools
- Personal Communication Services
- Phased Arrays
- Photonic Devices and Circuits
- Satcom and Reflector Antennas
- Scattering and Diffraction Remote Sensing
- Smart Antennas and Sensors
- Superconducting Applications
- Transients

EUROEM 2004, Euro Electromagnetics

12-16 July 2004, Magdebourg, Germany

This Symposium provides one of the main international forum within the international scientific and engineering community for the exchange and report of new ideas, information, and advances in theory and application. EUROEM 2004 continues the tradition of the EUROEM/AMEREM Symposia in bringing together the 14th High Power Electromagnetics Conference (HPEM 14), the 7th Ultra-Wideband Short-Pulse Electromagnetics Conference (UWB SP7), and the 7th Unexploded Ordnance Detection and Range Remediation Conference (UXO 7). The Conference is held under the auspices of the Otto-von-Guericke-University Magdeburg, with the close cooperation and support of the SUMMA Foundation and the Federal Office of Defense Technology and Procurement (BWB). EUROEM 2004 provided approximately 500 participants with over 400 scheduled presentations. Next conference in 2006 in Albuquerque (AMEREM).

HPEM / NEM & Related Topics

High-Power Microwaves

EMP Phenomenology, Propagation, Source Region

Electromagnetic Environments

Lightning - Characterization & Simulation

High-Intensity Radiated Fields

Transient Radar

Biological Effects and Medical Application

Environmental Effects of EM Fields

Electromagnetic Terrorism

Intentional EMI

Coupling to Structures, Cables

Vulnerability of Systems & Components

Hardening & Protection

Hardness Assurance & Maintenance

CAD Analysis & Synthesis

Simulators & Simulation Techniques

Pulsed Power

High-Power RF Source Technology

Measurements Techniques

Electromagnetic Topology

Electromagnetic Compatibility

Antennas

Signal Processing

Electromagnetic Noise

Geomagnetic Storms

Materials Characterization

UWB & Related Topics

Electromagnetic Theory

Scattering

Propagation

UWB Polarimetry

UWB Radar Systems

Underground & Subsurface Propagation

UWB Antennas

Applications of UWB Antennas

Antennas for UWB Communication

Wavelets & Multi-Resolution Algorithms

Time-Domain Signal Processing

Target Detection & Discrimination

Time-Domain Computation Techniques

Short-Pulse Measurement Techniques

Pulsed Power

Susceptibility

UWB Communication

Biological Effects

UWB- Interference with Aircraft Systems

New Canonical Problems, Benchmark Solutions

Special Sessions

UXO & Related Topics

Defining UXO - Sites, Problems

EM Characterization of Soils

UXO - Detection, Sensor Technologies

Numerical & Statistical Methods
EM Standards & Specifications
Nonlinear Dynamics and Chaos

UXO ID, Feature Signatures, Discrimination
Signal Processing
Sensor Fusion
Time-Domain Signal Processing
EOD Tools, Robotics
Containment
Modeling & Simulation
Clutter & Discrimination
Clutter Rejection Algorithms
Landmines - Detection & Sensor Technologies
Landmines - ID, Signatures, & Discrimination

Mediterranean Microwave Symposium (MMS 2004)

June 1-3, Marseille, France

Three previous editions of Microwave Symposiums 2001 (Tetwan, Morocco), 2002 (Caceres, Spain) and 2003 (Cairo, Egypt),

MMS'2004 will provide an international forum for reporting progress and recent developments in microwave theory and applications, electromagnetic, antennas and optical technology

The 5th International Kharkov Symposium
"Physics and Engineering of Microwaves, Millimeter and SubMillimeter Waves" (MSMW 2004)
Kharkov, Ukraine, June 21-26, 2004

The MSMW Symposium has grown from a series of conferences on millimeter (mm)and sub-millimeter (sub-mm) waves, which were aperiodically held in the USSR since ***1974***. These conferences played an important role for R&D in these wavelength ranges. At that time it was the only wide forum that was attended by the leading scientists and engineers of the involved organizations from all over the USSR. It must be admitted that then mm-wave R&D were considered as a sensitive defense-related area and were usually supervised by defense or double-purpose ministries of the USSR. A number of mm-wave radar, propagation and communication projects were performed for the military. Sub-mm R&D were in fact concentrated around development of multichannel interferometers-polarimeters for hot plasma diagnostics in Tokamak nuclear fusion machines. Therefore no surprise that early Symposia had, besides of open sessions, also a special classified part attended only by selected participants. Besides, along with exchange of new ideas, methods, designs and advanced technologies that is traditional for such events, the early Symposia served for cooperation with sub-contractor teams, for interaction with the industry, and even for determining the levels of funding of various organizations. Here important role was played by the USSR military-industrial complex, whose representatives regularly attended the conferences.

In ***1991***, just two months before the dissolution of the USSR, the first Ukrainian Symposium on "Physics and Engineering of Mm and Sub-mm Waves" was held on ***15-17 October, 1991***. It was organized jointly by the Scientific Council of AS of Ukraine "Physics and Engineering of Mm and Sub-mm Waves" and the Institute for Radio Physics and Electronics of AS of Ukraine. The scope of this Symposium was similar to the previous conferences. New feature, owing to the started conversion of defense industry, was greater openness especially around new technologies and devices, and information about available mm-wave components and elements. Taking into account the growing interest to the Symposium (it was attended by about 300 participants from Ukraine, Russia, Belarus, Lithuania, Armenia, and Georgia) and tendency to a wider integration in R&D, the participants decided to award the symposium the status of a regular international event while retaining the major topics and the style and form of the organization. Appreciating the contribution of the Kharkov radio-physical school into this area of science and technology, it was proposed to entitle this event the International Kharkov Symposium "Physics and Engineering of Mm and Sub-mm Waves" (MSMW). The following two Symposia, the 2-nd, the 3-rd and 4-nd International Kharkov Symposium "MSMW", were held on ***June 7-10, 1994*** , *September* ***15-17, 1998 and June 4-9***, respectively.

The latest MSMW'98 was organized by the Institute for Radio Physics and Electronics and the Institute of Radio Astronomy of NAS of Ukraine and the Kharkov National University.

For the first time in the history of symposia, MSMW'98 had English as working language. Besides of traditional participants from Ukraine, Russia, and Belarus, a number of scientists and engineers from Brazil, China, Germany, Japan, Mexico, Turkey, and UK took part in the symposium. Their papers were published in the two-volume Proceedings (about 800 pages).

7th European Microwave Week

11-15 October, 2004, Amsterdam

The 7th European Microwave Week combines:

Four Major Conferences

34th European Microwave Conference

European Gallium Arsenide and other Compound Semiconductors Application Symposium

European Conference on Wireless Technology

European Radar Conference

Associated Workshops

Short Courses

Exhibitor workshops

A Leading International Tradeshow

European Microwave Week 2004 continues the series of successful microwave events following Amsterdam (1998), Munich (1999), Paris (2000), London (2001), Milan (2002) and Munich (2003), with its 7th Exhibition and Conference Week. In October 2004 it is set to return to Amsterdam, Netherlands.

34th European Microwave Conference

12-14 October 2004, Amsterdam

The 34th European Microwave Conference (EuMC) is part of the European Microwave Week 2004, which is the largest event in Europe dedicated to a broad range of high-frequency related topics, ranging from semiconductor materials, MMICs and microwave circuit design to radar, high-speed and mobile system applications. The European Microwave Conference is the largest conference of its kind in Europe and therefore it is a perfect opportunity to keep up-to-date with recent achievements in the microwave and RF domain.

The EuMC brings together international experts in a wide variety of fields with academic and industrial backgrounds. It serves as a forum for the presentation and discussion of the most recent advances in circuit oriented device modelling and design, modelling and design of high frequency and high data rate photonics, design of subsystems and systems on a chip. The scope includes passive and active components, electromagnetic field theory and theoretical and experimental developments on wave propagation, antennas and antenna systems. Special emphasis will be placed on new designs and design methods and emerging technologies like MEMS. In addition to scientific papers, contributions are requested on systems and applications, covering the fields of telecommunications, radar, space, automotive, sensors and defense systems.

Conference Topics

Microwave and RF Circuits and Components

E1 Passive Circuits

E2 Filters and Multiplexers

E3 CAD of passive components

Active and Non-linear Hybrid and Monolithic Circuits and Systems

E4 Microwave and Millimetre-wave ICs for Telecommunications, Automotive, Military, and Space Applications (common topic with GAAS)

E5 Circuit Oriented Device Modelling

E6 Characterisation of Active Circuits and Systems

E7 Power Amplifiers and Linearisers (common topic with GAAS)

E8 Microwave Opto-electronics including Fibre Optic Systems

Technology and Materials

E9 Microwave and Millimetre-wave Packaging and Interconnects (common topic with GAAS)

E10 Micro and Nano-Technologies - MEMS and MOEMS (common topic with GAAS)

E11 Broadband Wireless, Ultra Wide Band and High Speed Technology (common topic with ECWT)

E12 New and Developing Technologies and Materials for Microwave Components

Field Theoretical and Numerical Methods

E13 EM Field Theory (linear and non-linear)

E14 Numerical Techniques in Frequency, Time or Mixed Domains

E15 Linear and Non-linear CAD Techniques

Antennas and Wave Propagation

E16 Antenna Design, Modelling and Measurement (common topic with ECWT)

E17 Phased Arrays and Associated Components

E18 Propagation Effects**E19** RF Signal Processing in Smart Antennas for Digital Beamforming (common topic with EuRAD)

Measurements, Electromagnetic Effects

E20 Microwave, Millimetre-Wave and Sub-millimetre-wave Measurements

E21 Electromagnetic Compatibility and Biological and Medical Effects (common topic with ECWT)

Systems and Applications

E22 Millimetre-wave and Sub-millmetre-wave Components, Circuits and Systems

E23 Radar Technology, Systems and Applications (common topic with EuRAD)

E24 Sensors and Sensor and Imaging systems

E25 Industrial, Medical, Telecommunication, Space and Transportation Systems and Applications

E26 Waveform Generators for Radar (common topic with EuRAD

2004 URSI International Symposium on Electromagnetic Theory

Pisa, Italy, May 23-27, 2004

In a long tradition, Commission B, *"Fields and Waves"*, of the International Union of Radio Science (*URSI*) organizes a triennial series of international symposia on electromagnetic theory. The scope of the Symposium covered all areas of electromagnetic theory and its applications

- This triennial event is one of the major activities of URSI Commission B and is the 18th in the long history since the 1st in Toronto 1953. The most recent past Symposia in this series were held in Victoria, Canada (2001) and Thessaloniki, Greece (1998). The preparation of the 2004 EMT-S in Pisa was initiated upon the decision in the business meeting at the 2002 URSI General Assembly. Thanks to the intensive collaboration from the Italian National Committee of URSI and the Local Organizing Committee (LOC) chaired by Prof. G. Manara, we have been completing preparations for a very attractive and rich symposium in a much shorter period than usual.
-
- The scope of the Symposium covers all areas of electromagnetic theory and its applications. A total of 26 topics convened by 50 authorities worldwide as well as 37 regular ones were prepared in the call for papers. As a result, we have received 464 submissions and the Technical Program Committee, consisting of 40 members from 16 countries, have reviewed them and selected 421 papers. We have put together a rich set of sessions, that is, 62 oral sessions with 6 papers, 4 plenary sessions and 1 poster session. These include progress in traditional topics such as electromagnetic theory, guided waves, scattering and diffraction and the latest topics such as metamaterials, ultra wide band signals and practical aspects of ground penetrating radars, etc.

Suggested Topics:

Contributions concerning all aspects of electromagnetic theory and its applications are welcome. Other organized sessions are also indicated on electronic paper submission page of the Web. Novel and innovative contributions are particularly appreciated.

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AMS

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PIERS 2004

Progress in Electromagnetics Research Symposium
28-31 March 2004, Pisa, Italy

The Electromagnetics Academy is devoted to academic excellence and the advancement of research and relevant applications of the electromagnetic theory and to promoting educational objectives of the electromagnetics profession. Induction to Membership in the Academy is an honor in recognition of scholarly achievements and distinguished educational and professional services. The Academy currently has over 1,000 members active in electromagnetics research. The membership directory of the Academy is Who's Who in Electromagnetics.

Regular exchange of new developments and advancements in the profession will be made through international forums of publications and conferences. In the year 1989, the Academy co-sponsored the first Progress in Electromagnetics Research Symposium (PIERS) held in Boston, Massachusetts, 25-26 July. The Symposium was followed by an NSF workshop on future directions in electromagnetics research, also co-sponsored by the Academy. Subsequent PIERS have been held in various cities around the world, including Cambridge, Pasadena, Noordwijk, Seattle, Innsbruck, Hong Kong, Nante, Taipei, Osaka, Singapore, Honolulu, Pisa, etc.

PIERS provides an international forum for reporting progress and advances in the modern development of electromagnetic theory and its new and exciting applications. The Progress in Electromagnetics Research Symposium (PIERS) is sponsored by The Electromagnetics Academy. PIERS provides an international forum for reporting progress and recent advances in the modern development of electromagnetic theory and its new and exciting applications.

More than 800 submitted abstracts received in 2004.

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MIKON 2004, 15 th International Conference on Microwaves, Radar and Wireless Communications,

Poland, Warszawa, May 17 - 19, 2004

The 15th International Conference on Microwaves, Radar and Wireless Communications MIKON-2004 will be held in Warszawa, on 17-19 May as a part of the “International Conference on Microwaves & Radar Wireless Communications in Microwave and Radar Week” in Poland, which is the largest event in middle Europe dedicated to a broad range of microwave theory and techniques concerning many aspects of radar technology and microwave & optical communications system.

CONFERENCE TOPICS

1. Antenna Design, Modelling and Measurement
2. Active Devices and Components
3. Passive Devices and Components
4. Microwave and Optical Integrated Circuits
5. Millimetre and Sub-millimetre Technology
6. Photonics, Microwave – Light Wave Interaction
7. RF, VHF and UHF Technology
8. Magnetic & Acoustic Wave Devices
9. CAD Techniques, Modelling and Simulation
10. Microwave Measurements
11. Industrial, Environmental and Medical Applications
12. Microwave and Optical Communication Systems
13. Wireless and Personal Communications
14. Radar Technology
15. Radar Polarimetry and Signatures
16. Sensors, Detectors and Vehicular Radars
17. Electromagnetic Compatibility
18. Teaching Microwaves

COST 284 Workshops

Founded in 1971, COST is an intergovernmental framework for European Co-operation in the field of Scientific and Technical Research. **The mission** of COST is to strengthen Europe in scientific and technical research through the support of European cooperation and interaction between European researchers. It aims to strengthen non-competitive and pre-normative research in order to maximise European synergy and added value.

COST TIST (Telecommunications, Information Science and Technology) encompasses a number of strategic European concerted research actions concerning future technologies and services in the fields of Satellite, Mobile, Optical networking & components, Internet services, Speech technology, Health implications of electromagnetic fields and Knowledge management

Current action: COST Action: 284

Innovative Antennas For Emerging Terrestrial and Space-Based Applications

Start date: 11th April 2002 Duration: 4 Years End date: 10th April 2006 Participating Countries : 10

The main objectives of the Action are 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 focus will be on antenna arrays, active and adaptive antennas and their beam forming, in support of broadband applications up to millimetre waves

The coordinated activities are carried out in two Working Groups:

WG 1 Advanced modelling & optimisation techniques

WG 2 Innovation in front-end architectures, technologies & techniques

and four Focus Areas:

A. Conformal antennas

B. Small antennas for mobile and wireless terminals

C. Millimetric antennas

D. Novel multi-beam antenna techniques and architectures

28th ESA Antenna Workshop on Space Antenna Systems and Technologies

31 May - 3 June 2005, ESTEC, Noordwijk, The Netherlands

INTRODUCTION

The Antennas and Sub-Millimeter Waves Section of the Electromagnetic Division together with the EMC & Antenna Measurement, the Structures, the Mechanism and the Materials Physics and Chemistry Sections of the ESTEC Directorate of Technical and Quality (DTEC) is organising the **28th ESA Antenna Workshop.**

OBJECTIVES OF THE WORKSHOP

The objective of this Workshop is to provide an open forum focused on Space Antenna Systems and Technologies with the aim of fostering an exchange of ideas between researchers and industrials involved in electrical and mechanical domains. Contributions from European and non-European companies, organisations, universities and institutions are expected.

The **28th ESA Antenna Workshop** will provide an overview of the current state of the art with the latest developments in the Space antenna domain. Participants will have the opportunity to share their technical expertise and experiences by means of formal presentations, both in oral and in poster format, informal discussions and round tables.

The main objectives of the **28th ESA Antenna Workshop** are:

- To present the state-of-the-art and to explore innovative approaches on all antennas related products and their electrical/mechanical/thermal design.

- To explore and elaborate on future needs, new trends and possibilities, looking at the development of antenna technologies for the future remote sensing, telecommunications and scientific applications.

TOPICS OF INTEREST

Abstracts of original papers are requested for inclusion in the workshop programme. The abstracts should clearly identify the developments to be the object of the proposed papers and highlight the underlying advances, recent developments, and innovation.

Antenna systems concepts, innovative technology designs and developments, as well as testing/validation procedures are suggested, addressing, but not limited to, the following topics classes:

1. Advanced reflector antennas (large aperture, polarisation and frequency sensitive reflector technologies).

2. Feed systems and feed boxes.

3. Antenna deployment and pointing mechanisms.

4. Advanced array antennas (passive, active, adaptive arrays architectures and analog / digital beam-forming networks technologies).

5. Hybrid antennas, combinations of arrays and reflectors.

6. Reflectarrays, lenses,…

7. Millimetre and sub-millimetre wave antennas.

8. Low gain antennas (TT&C, GPS,..)

9. Users antenna for fixed or mobile communications.

10. Groundstation Antennas

11. Formation flying antennas and on ground dispersed antennas.
12. Antenna modelling techniques, algorithms and tools.
13. Advanced structure concepts (incl. adaptive ones).
14. RF transparent, reflective or absorptive materials.
15. Low mass and highly stable antenna structures.
16. Manufacturing technologies up to 1000 GHz, electrical and mechanical behaviour.
17. Dedicated telecommunication antenna systems.
18. Dedicated science instrument or remote sensing antenna systems.
19. Synergies between antennas for satellite and for terrestrial applications.
20. Antenna testing - electrical and mechanical.

EMPS 2004, 6th European Workshop on Mobile/Personal Satcoms

ASMS 2004, 2nd Advanced Satellite Mobile Systems Conference

21 - 22 September 2004, ESA-ESTEC, Noordwijk, The Netherlands

The Conference, co-organised by ESA/ESTEC and the Advanced Satellite Mobile Systems Task Force (ASMS-TF), will present the latest applications and advances in research on mobile satellite systems

The **main areas of interest** are:

- Advanced mobile satellite systems studies
- Propagation measurements and channel models
- Advanced coding and modulation topics
- Synchronisation issues
- Multiple access and interference mitigation techniques
- Networking and resource management
- On board processing and satellite antennas
- User terminals technologies
- Mobile Applications and Services
- Integration of telecommunication and localisation
- Integration with terrestrial fixed and mobile systems
- Demonstration and trials
- Operational experience with existing systems
- Business and market analysis mobile communication systems
- Regulatory and spectrum requirements
- Standardisation aspects

Demonstrations

Special arrangements for live demonstrations and exhibition stands are foreseen during the conference

26th ESA Antenna Technology Workshop on Satellite Antenna Modelling and Design Tools. Innovation and challenges

12-14 November 2003, ESTEC, Noordwijk, The Netherlands

The objective of this Workshop is to provide an open focused on satellite antenna modelling and design tools and associated developments with the aim of fostering and exchange of ideas between antenna engineers, antenna modelling specialists and tool developers, from European and non-European companies, organisations, universities and institutions.

The **26th Antenna Workshop** should provide an overview of the latest developments in satellite antenna modelling techniques, algorithms and tools, performed in the frame of current research and developments programmes.

Participants will have the opportunity to share their technical expertise and experiences by formal presentations, both in oral and in poster format, informal discussions and round tables.

The two main objectives for the **26th Antenna Workshop** are:

- To present the state-of-the-art and to explore innovative approaches in the area of satellite antenna modelling and design tools.
- To explore and elaborate on future needs, and new trends and possibilities, looking at the development of antenna technologies in future remote sensing, telecommunications and scientific applications.

Papers are expected to focus on modelling techniques, including theory and algorithms, validation and related measurement campaigns, as well as tool design and implementation, addressing the classes of topics described in the following.

1. Antenna interactions on spacecrafts
2. Reflector antenna optics
3. Feed systems and feed boxes
4. Passive arrays
5. Active arrays.
6. Low-gain antennas (TT&C, etc.)
7. Design optimisation
8. Other issues

The Workshop being focused on innovation and challenges, it is expected that papers will contribute to provide a faithful picture of the forefront in European, and non-European, developments in the area of satellite antenna modelling and design tools. Therefore it is recommended to tailor the papers to the description of one of more of the following key aspects.

1. Advances in electromagnetic theory
2. Novel algorithms
3. Combination of techniques and algorithms
4. Methodologies for the validation of algorithms
5. Approaches to the quantification of modelling accuracy
6. Innovative tool architectures and implementations

AMS 2004 – Antenna Measurements and SAR

Technical Seminar, 25-26 May 2004, University of Lughborough, UK

This two-day seminar aims to both air problems in antenna and specific absorption rate (SAR) measurements and also provide an introduction to those new to these subjects.

The **AMS 2004** technical programme will provide comprehensive coverage of antenna measurement techniques, SAR theory and development and SAR dosimetry prediction. The programme also includes Keynote Addresses from the following leading figures

- **Professor Niels Kuster**, Director of the Foundation for Research on Information Technologies in Society, Switzerland
- **Maurice Paquay**, ESA-ESTEC, The Netherlands
- **Dr Dirk Manteuffel**, IMST GmbH

AMS 2004 is also pleased to be associated with the following workshops, to be co-located with the main conference:

CST Microwave Studio Workshop and Training

Short Course on Numerical Dosimetric Predictionusing the Empire FDTD Software

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4th European Workshop on Conformal Antennas

Stockholm, Sweden, May 23-24, 2005

In 1999 the first European Workshop on Conformal Antennas was organized by the IHE of the University of Karlsruhe, Germany. This was the start of a biennial rhythm of European Conformal Antenna Workshops held at different locations in Europe. In 2001 the second one was organized by the TNO-FEL, held in The Hague, The Netherlands. The third one was given in Bonn, Germany in 2003 and was organized by FGAN-FHR.

It is now a pleasure to invite you to the fourth European Workshop on Conformal Antennas. The workshop will be held in Stockholm, Sweden on May 23-24 2005, organized by the Division of Electromagnetic Theory at the Royal Institute of Technology.

The following topics will be addressed:

- Applications of conformal antennas
- Mathematical models and simulations
- Measurement techniques
- Conformal phased and switched arrays
- Feeding techniques
- Pattern synthesis
- Direction finding and adaptive conformal arrays
- Other topics concerning conformal antennas

Fifth International Conference on Computation in Electromagnetics

19-22 April, Straton-upon-Avon, UK

Aims:
To provide a forum for the presentation and discussion of research results from the various computational techniques now available for solving problems in Electromagnetics. The focus is on an inclusive Conference with networking opportunities and plenty of time for informal discussion. In conjunction with the CEM conference a technical exhibition is hosted, aimed at the manufacturers of CEM software tools as well as the end users of this software

4th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2004,

Jult 24-28, Jyvaskyla, Finland

Three previous ECCOMAS Congresses: Brussels 1992, in Paris 1996, and in Barcelona 2000.

Congress Topics

1. Computational Solid and Structural Mechanics
2. Computational Fluid Mechanics
3. Computational Acoustics
4. Computational Electromagnetics
5. Computational Chemistry
6. Computational Mathematics and Numerical Methods
7. Inverse Problems
8. Optimization and Control
9. Computional Methods in Life Sciences
10. Industrial Applications

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Electrocomp 2003, Sixth International Conference on Computational Methods for the Solution of Electrical and Electromagnetic Engineering Problems

Incorporating Electromagnetic Effects on The Human Body and Equipment Seminar

10 - 12 September 2003, Split, Croatia

ELECTROCOMP 2005 is the Seventh International Conference in the successful series which deals with Computational Methods for the Solution of Electrical and Electromagnetic Engineering Problems. The meeting will discuss the development of different computational methods and software systems, as well as their use in design and analysis.

The conference will incorporate all areas of electrical engineering that deal with continuous valued variables, such as circuits, semi-conductors, devices, magnetics and electrical machines, antennas, electromagnetic compatibility and microwave components. The papers will include a broad range of computational methods and software topics including numerical algorithms, data structures, user interfaces and others. The application areas are equally diverse.

Electrocomp 2005 will be of interest to all engineers concerned with the techniques of formulating and building software for electrical engineering applications.

Previous meeting have been held in Boston (1990), Southampton (1993), San Miniato, Italy (1996), Seville (1999) Lemnos, Greece (2001)

Benefits of attending

- Keep up-to-date on the latest advances in the field.
- Present your research within a unique forum.
- Collaborate with experts from around the world.
- Your conference paper will be reviewed by members of the International Scientific Committee and other colleagues, and once selected, will be rapidly published in book form by WIT Press.
- Your paper will also be permanently archived in the Transactions of the Wessex Institute on our eLibrary site, where it will be available to the international scientific community.

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7th International Workshop on Finite Elements for Microwave Engineering, Antennas, Circuits and devices

May 20-21,2004 , Madrid, Spain

The Workshop is the 7th Workshop on “Finite Elements for Microwave Engineering - Antennas, Circuits and Devices”. Previous workshops were held in San Miniato (Italy), Siena (Italy), Halifax (Nova Scotia, Canada), Poitiers (France), Boston (Massachussets, USA), Chios (Greece).

TOPICS

Antennas
Computational Electromagnetics
Microwave Electronics
Passive and Active Circuits
Scattering
Electromagnetic Compatibility
Industrial and Biological Applications
Other Related Topics

Sponsored by:

International Symposium on Interdisciplinary

Electromagnetic, Mechanic & Biomedical Problems
ISEM 2005

Bad Gastein (Salzburg), Austria, September 12-14, 2005

The **International Symposium on Applied Electromagnetics and Mechanics (ISEM)** is a well known international forum on applied electromagnetics. It was founded in 1988 in Japan and since then was held there for six times and once in Korea, the United Kingdom, Germany, Italy and France, respectively.

The 12th symposium is devoted to **Interdisciplinary Electromagnetic, Mechanic & Biomedical Problems**.

This means that the a priori interdisciplinary character of ISEM will be furtherly enhanced through the additional focus on biomedical aspects. Authors will be invited to consider the resulting heterogeneous character of attendants - however without concessions with respect to the scientific quality of presentations. This should provide possibilities for interdisciplinary discussions and contacts on a high academic level.

Topics	**Key words (non-exclusive)**
A Bioelectricity & Biomagnetism	cell manipulation, cell fusion, bio-signals, field effects
B Biomechanical & electromechanical topics	muscle contraction, kinetics, haemodynamics, piezo-electric materials and devices, functional materials
C Magneto-mechanical topics	magnetostriction, vibrations, magneto-elastic effect, functional materials, bearings, levitation
D Applied micro & nano-magnetism	nano-particles, magnetic fluids, functional materials, micro-sensors, separation & filtering
E Measurement science in magnetism	advanced test technology, assessment strategies
F Low & high temperature technologies	superconducting devices, induction heating, plasmas
G Laser technologies	particle concentration, optical diagnostics, medical applications
H Nonlinear control and systems	damping control, biomedical control, hysteretic systems, working point adaption
I Advanced sensors and actuators	novel concepts, multiparametric systems in medicine & technology

J Nondestructive evaluation & inverse problems	defect detection, rapid inspection methods, optimization, identification
K Learning systems	advanced neural networks, brain engrams, synaptic models
L Advanced computing	image processing, modeling procedures, visualization

International Conference on Mathematical Methods in Electromagnetic Theory (MMET04)

Dniepropetrovsk, Ukraine, September 14 - 17, 2004

The conference is an outstanding forum for the exchange of scientific ideas in electromagnetic field theory among scientists and engineers from western, Former Soviet Union (FSU), and other eastern European countries. The MMET series of conferences was started in 1988, and, since 1990, it has been the only regular forum in the Former Soviet Union (FSU) in electromagnetics that has English as the single working language. MMET*02 was organized in cooperation with the National Academy of Sciences Scientific Council on Radio Physics & Microwave Electronics and the Department of Radio Engineering of National Technical University of Ukraine "Kiev Polytechnic Institute" (NTUU-KPI). Among the international sponsors of this conference were various IEEE societies, as well as URSI. A total of about 180 participants from 26 countries attended the 2002 conference

During **MMET*94**, about 110 papers were accepted (40% from Ukraine, 40% from Russia, and 20% from the rest of the world, from Poland to Argentina). Attendance was over 130 participants, including some 19 from outside of the former Soviet Union. During **MMET*96**, about 130 papers were accepted (75% from Ukraine, 15% from Russia, and 10% from the rest of the world). Attendance was about 100 participants. At **MMET*98** and **MMET*2000**, the number of papers was 270 and 199, respectively, and the number of participants around 250 (60% from Ukraine, 25% from ex-USSR, and 15% from other countries). The **MMET*2002** has attracted more than 250 participants from 26 countries (papers - 176, participants - 47% from Ukraine, 25% from ex-USSR, and 28% from other countries).

Attendance estimate for **MMET*04** is 200 to 250 participants: 50% from Ukraine, 25% from ex-USSR, and 25% from other countries. This is due to the central location of Dnepropetrovsk, better flight connections, and numerous tourist attractions

TOPICS:

Accelerator phenomina, Antennas Asymptotic Methods, Complex Media, Computational techniques, Eigenvalue Problems, Electromagnetic Theory, Function-Theoretic Methods, Gratings, FSS and PBG materials, Inverse Problems, Integral Equations Methods, Lasers, Microwave electronics, Nonlinear phenomina, Optical components, Plasma

Joint COST 273/284 Workshop on

Antennas and Related System Aspects in Wireless Communications

June 7 - 10, 2004, Chalmers University of Technology, Gothenburg, Sweden

AREAS OF THE WORKSHOP

Antenna element and array design and characterization

RF front ends

Modeling of MIMO or directional radio propagation

Signal processing for MIMO or beam steering

Antennas for MIMO systems UWB antennas and channel models

Diversity AD-hoc systems

Multiband/multifunction applications

Applications to 3G, WLAN, ad-hoc networks, and systems beyond 3G

Sponsored by:

Göteborgs Stad

1. ITG Workshop on Smart Antennas
18th-19th of March 2004, Technische Universität München

Organized by the Institute for Circuit Theory and Signal Processing at the Munich University of Technology (TUM) in cooperation with the Information Technology Society (ITG) of the Association for Electrical, Electronic and Information Technologies (VDE) and in technical co-sponsorship of the IEEE Circuits and Systems Society, the IEEE Communications Society, and the IEEE Signal Processing Society.
This workshop is in the tradition of previous workshops that were held 1996 in Munich and Zurich, 1997 in Vienna and Kaiserslautern, 1998 in Karlsruhe, 1999 in Stuttgart, and 2001 in Ilmenau. All of these workshops have been a great success to provide a forum to present the most current research on Smart Antenna Technology. This call for papers is intended to solicit contributions focussing on latest research of this key technology for all kinds of wireless communication systems

Conference Topics:

_ Beamforming

_ Space-Time Processing

_ Linear and Non-Linear Transmit Processing (Precoding)

_ Space Time Codes

_ MIMO Systems

_ Multicarrier MIMO

_ Multiuser MIMO

_ Channel Measurements & Modelling

_ Cooperative Networks

_ Crosslayer Optimization

_ Link, System and Network Level Simulation

_ Radio Resource Managment

_ Implementation Issues

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Univ.-Prof. Dr.techn. Josef A. Nossek

IEEE COMMUNICATIONS SOCIETY

CIRCUITS AND SYSTEMS SOCIETY

ITG INFORMATIONSTECHNISCHE GESELLSCHAFT IM VDE

IEEE Signal Processing Society

ICU 2005 IEEE International Conference on Ultra-Wideband

Zurich , September 5-8, 2005

The ICU 2005 (former Joint UWBST / IWUWBS) will be held from September 5 - 8, 2005 in Zurich, Switzerland. The conference is co-organized by the Swiss Federal Institute of Technology (ETH Zurich) and IBM Research GmbH, Zurich Research Laboratory. The conference will cover all aspects of UWB technology including information theoretic limits, antennas and propagation, signal processing, circuits and systems, multi-access and coding as well as innovative applications and coexistence.

5th International Conference on 3G Communication technologies

18-20 October, London, UK

3G2004 is the premier technical forum for 3G mobile and related technologies, now into its fifth successful year. 3G 2004 will be held at the prestigious headquarters of the IEE on the banks of the River Thames. It will bring together researchers and technologists from manufacturers, service providers, operators, application developers, regulators and standards bodies to share the latest information and promote the development of 3G services, systems and networks.

The conference will be a three-day event with a balanced structure consisting of parallel technical sessions and panel discussions by leading experts on 3G technologies. Several hundred delegates from around the world are expected to attend.

In recognition of the progress in the mobile industry towards implementation and launch of 3G services, this conference will have an agenda relevant to industry delegates with emphasis on the practical aspects of networks and systems and on 3G and OMA-based services and applications.

3G2004 will bring together technical experts concerned with all aspects of the realisation of 3G systems and services. Attendees will include Equipment Manufacturers, Network Operators, Service Providers, Application Developers, Device Suppliers, Researchers, Universities, Regulators and users who are actively engaged in the development and deployment of 3G technologies, as well as those who are new to this topic area

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PIMRC 2004, 15TH IEEE INTERNATIONAL SYMPOSIUM ON PERSONAL, INDOOR AND MOBILE RADIO COMMUNICATIONS

Barcelona, Spain, 5-8, September 2004

PIMRC conference enjoys today wide respect and represents a new trend in international conferences, one which is well suited to the evolving global market. It is uniquely identified by the following features:

- Balance among academia, industry, and governmental organisations

- Truly international technical program endorsed by IEEE, IEE, and IEICE

- Flexible organisation tailored to the conference venue

- Personal touch and care by the area coordinators, executive committee members and a group of faithful individuals

The major reason for the success of the conference is the simplicity and practicality of the organization, which has created a productive and friendly environment with minimal administrative delays.

The first PIMRC, as an international symposium, also took place in King's College, with joint sponsorship of the local IEEE Communication Society Chapter and close cooperation with BT laboratories. The conference attracted around 200 participants and several prominent figures in the industry.

In 1992, PIMRC was scheduled for Boston with more than 500 people from more than 25 different countries and almost all the major figures in the cellular, PCS, wireless LAN, and mobile data industries. To reflect the true international spirit of the conference, IEEE Communication Society, IEE and IEICE were invited to cooperate with the conference.

The following edition of PIMRC was held in Yokohama in 1993 with over 500 participants from more than 25 countries.

In the 1994 edition of PIMRC, held in the Hague, Holland, the organization of the conference was for the first time endorsed by the area coordinators to the local team; held in parallel with WCN conference, it attracted 500 participants.

Toronto followed in 1995 with 600 participants from more than thirty countries and about 270 papers

PIMRC'96 was held in Taipei with more than 600 participants from more than 35 different countries.

PIMRC'97 was held in Helsinki, Finland with 500 participants from 40 countries and a record of 440 papers were received.

In 1998, PIMRC was held once again in Boston, gathering more than 500 participants; the technical program included 300 technical papers, 18 invited papers, and 15 tutorials.

PIMRC'99 was held in Osaka, Japan and attracted 600 delegates.

PIMRC2000 was held in London, UK

PIMRC2001 was held in San Diego, Cal.

PIMRC2002 was held in Lisbon, Portugal.

PIMRC2003 was held in Beijing, China. the conference attracted 482 participants from 28 countries or regions. Among them, 340 from abroad and 142 from domestic. PIMRC2003 received 1042 paper submissions from 41 countries and regions. After serious peer reviews by the Technical Program Committee and a good number of reviewers, 613 papers were finally selected and edited into the proceedings.

Sponsored by:

14th IST Mobile & Wireless Communications Summit,

Dresden, 19-22 June 2005

The 14th IST Summit focuses on bringing together experts from the worldwide wireless industry and research communities. Recent advances in all fields related to mobile and wireless communications will be presented, thereby facilitating the identification of future trends, illumination of business opportunities, and discussion on the future roles of various bodies from academia, industry, and research centres in helping to form the vision of an ambient, truly intelligent communications environment.

16th International Zurich Symposium on Electromagnetic Compatibility

EMC Zurich 2005, February 14-18

EMC Zurich 2005 will cover the entire scope of EMC theory, measurements and technology. The topics include, but are not limited to, the following technical committees of the symposium:

1. Broadband powerline communications
2. Miscellaneous
3. EMC in communications
4. Reverberation chambers and TEM cells
5. Historical
6. Automotive EMC
7. Bioelectromagnetics
8. Sensors and antennas
9. Lightning and its effects I
10. Chip level EMC
11. EMC Innovation
12. Lightning and its effects II
13. Chip and package level EMC
14. HEMP effects
15. Emission Testing
16. Computational electromagnetics I
17. Power system EMC I
18. Measurement validation
19. Power system EMC II
20. System level EMC
21. Computational electromagnetics II
22. Transmission lines
23. EMC Protection

4th International Workshop on Electromagnetic Compatibility of Integrated Circuits

March 31st - April 1st, 2004, Angers, France

The workshop is specifically focused on EMC of integrated circuits, with the following sub-topics :

- Measurement methods for emission of integrated circuits
- Measurement methods for susceptibility of integrated circuits
- Models & standards for predicting the emission of integrated circuits
- Education and e-learning related to EMC for ICs
- Use of IC models in printed circuit board simulation
- Models for predicting the susceptibility of integrated circuits
- Design methodologies for improved EMC behavior of ICs
- Tools to handle EMC at IC level
- Prospective aspects of EMC in future generation ICs

The authors of the most relevant EMC Compo 04 papers will be offered to contribute to a book on EMC of integrated circuits. However, it should be noted that this book should not consist of a collection of the papers themselves; therefore, selected authors will be requested to write new material

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EMC Europe 2004, International Symposium on Electromagnetic Compatibility

September 6-10, 2004, Eindhoven, The Netherlands

The 6th International Symposium on Electromagnetic Compatibility offers to researchers from academia, industry and government the possibility to present the progress in their research and to discuss all aspects of EMC in a challenging academic environment. The symposium succeeds previous editions held in Rome, Bruges and Sorrento. The International Steering Committee assigned the 2004 edition to Eindhoven, the Netherlands.

The technical exhibition will accompany the EMC symposium. This exhibition will be combined with the two-yearly exhibition of the Dutch EMC-ESD society. No admittance fee for the exhibition will apply. In parallel, poster sessions and coffee breaks will be held near to the exhibition.

Suggested technical areas and topics

1 EM Environment 2. ESD 3. Lightning & EMP 4. High Power Microwave & HIRF 5. Intentional EMI 6. EM Coupling7. Lines & Cables8. PCB & Chip Design 9. Planar Integrated Circuits 10. Signal Integrity 11. Interconnect and Packaging Structures 12. Shielding 13. Filters 14. Grounding 15. Immunity 16. Emission 17. Numerical modeling in EMC 18. EMC Topology 19. EMC and Software 20. Design under EMC Constraints 21. CAD for EMC 22. EMC in Space and Avionic Systems 23. Automotive EMC 24. EMC in Railway Systems 25. EMC in Automation Systems 26. EMC in Information Systems 27. EMC in Communication Systems 28. EMC in Wireless Systems 29. EMC in Power Systems 30. EMC in Power Electronics 31. EMC in Complex large Systems 32. EMC in Biomedical Devices 33. EMC in Information Security 34. Absorbers, Components & Materials in EMC 35. EMC Nanotechnology 36. Measurements & Instrumentation 37. Anechoic Chambers , TEM Cells, Reverberating Chambers 38. Standards & Regulations 39. Spectrum Management & Engineering 40. Human Exposure to EM Fields 41. EMC and Functional Safety 42. EMC Management 43. EMC Education

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