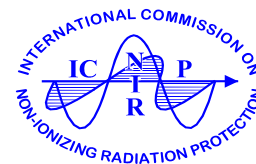
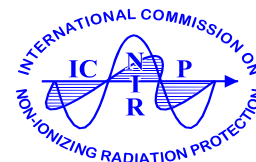


INTERNATIONAL COMMISSION ON NON-IONIZING RADIATION PROTECTION



# ICNIRP ACTIVITIES

REPORT 2011



## Introduction

This report summarizes the activities of the Commission for the period between January 2011 and December 2011.

## ICNIRP Membership - Main Commission, Standing Committees and Consulting Experts

The ICNIRP Commission held its quadrennial election in November 2011 on the occasion of its Annual General Meeting, 10-12 November 2011, Manila, Philippines. Karl Schulmeister informed the Commission that he is to resign by the end of the term.

According to the Statutes, the Main Commission 2012-2016 will take office at the end of the IRPA Conference in May 2012. It is composed as follows:

Rüdiger Matthes, Chair, Germany  
Maria Feychting, Vice-Chair, Sweden

Rodney Croft, Australia  
Adele Green, Australia  
Kari Jokela, Finland  
James Lin, United States of America  
Agnette Peralta, Philippines  
Carmela Marino, Italy  
Per Söderberg, Sweden  
Bruce Stuck, United States of America  
Zenon Sienkiewicz, United Kingdom  
Eric van Rongen, Netherlands  
Soichi Watanabe, Japan

The election for the Standing Committee membership will take place in 2012.

All commission members', standing committee members' and consulting experts' profiles and declarations of interests are available on the ICNIRP website <http://www.icnirp.org>.

## ICNIRP Scientific Secretariat

Gunde Ziegelberger is filling the position as Scientific Secretary with Karine Chabrel as Deputy Secretary.

## Declaration of personal interests

In 2011 ICNIRP, in view of strengthening transparency and independence, implemented a consolidated procedure to report any conflict of interests on an annual basis. The new more



detailed declarations of personal interests which are to be filled by all commission members, and from 2012 on also by standing committee members, are available to anyone directly from the ICNIRP website. The declarations of personal interests are screened by the Commission, which evaluates whether the interests declared there lead to a conflict putting at stake the independence of ICNIRP. → [www.icnirp.org/cv.htm](http://www.icnirp.org/cv.htm)

### **Commission Meetings**

A Commission meeting was held on 20-22 May 2011 in Ljubljana, Slovenia. Scientific topics discussed there were mainly those described below under working groups and activities. From the administrative point of view it was decided to further strengthen transparency by communicating a summary of the ICNIRP budget on the website. Also ideas on how to widen financial support from public radiation protection authorities worldwide, such as the creation of an institutional or country membership, were expressed. No specific decision was taken at this point.

The Annual General Meeting of the Commission was held in Manila, Philippines, on 10-12 November 2011. On this occasion the Commission held its quadrennial election for commission membership, chair and vice-chair, the results of which are reported above.

### **Executive Board Meeting**

The Executive Board met in Munich on 6 April, 14 July and 18 October 2011. Scientific and administrative issues were discussed, including the organization of the upcoming meetings and workshops.

### **Working groups and activities**

*Guidelines on limits of exposure to incoherent visible and infrared radiation (0,38  $\mu\text{m}$ -3mm) and Guidelines on limits of exposure to laser radiation of wavelengths between 180 nm and 1000  $\mu\text{m}$*

An update of both guidelines was approved for external review via the online consultation at the beginning of 2011. The open consultation ended on 21 May 2011. The drafts are currently being finalized.

The exposure limits as recommended in the guidelines serve to protect the skin and the eye from photochemical and thermal damage. As new research data on retinal thermal injury became available, the complemented threshold data-set provided the basis for a revision of the existing guidelines. Thermally-induced effects depend on wavelength, exposure duration and spot size (retinal irradiance diameter) and all dependencies were updated according to the new experimental and thermal model data. In short, in the nanosecond time range the exposure limits were reduced due to microcavity-induced injury and in millisecond time range the improved understanding of the spot size dependence allowed an increase of the exposure limit for short pulses and large sources.



*Guidelines for limiting exposure to electric fields induced by movement of the human body in a static magnetic field and to time-varying and electric fields below 1 Hz*

A task group has been appointed to prepare a draft document to be submitted to the Commission. A draft is currently refined prior to public consultation. The guidelines are established for the protection of workers moving in static magnetic fields or being exposed to magnetic fields with frequencies below 1 Hz. The objective is to set the limit well below the threshold of peripheral nerve stimulation and to minimize the possibility of vertigo and perception of visual sensations (magnetophosphenes). → [www.icnirp.org/activities.htm](http://www.icnirp.org/activities.htm)

*Guidelines for limiting exposure to radio-frequency fields (100 kHz -300 GHz)*

The Task Group lead by James C. Lin is composed by Eric van Rongen, Maria Feychting, Kari Jokela, Rüdiger Matthes, Bernard Veyret. Members of the Commission are asked to send topics they view as fundamental to the revision of the guidelines. The task group is intended to meet in Spring 2012 to start outlining the main issues for revision.

It is noted that the World Health Organization intends to finalize the Environmental Health Criteria (EHC) by 2013. Following the ICNIRP/WHO cooperation procedure for the development of EMF guidelines, the RF guidelines are intended for publication after the EHC is issued.

### **Publications**

In 2011 the following ICNIRP documents have been published:

*Mobile Phones, Brain Tumours and the Interphone Study: Where Are We Now?* Environ Health Perspect 119(11): 1534-1538; 2011.

The review by the ICNIRP SCI was published in Environmental Health Perspectives in July 2011 and is available for free download. → [www.icnirp.org/pubMost.htm](http://www.icnirp.org/pubMost.htm).

Non-Ionising Radiation and Children's Health. Proceedings of an International Conference, Ljubljana, Slovenia, 18-20 May 2011. *Progress in Biophysics & Molecular Biology* 107(3):311-482; 2011.

### **Translations of ICNIRP Publications**

Chinese and Portuguese translations of the ICNIRP Guidelines on Limits of Exposure to Static Magnetic Fields and the Guidelines for Limiting Exposure to Time-Varying Electric and Magnetic Fields (1 Hz - 100 kHz) were prepared by different institutes and made available to ICNIRP for publication on its website. → [www.icnirp.org/pubMost.htm](http://www.icnirp.org/pubMost.htm)

### **Workshops and Meetings hosted, organized by ICNIRP or with ICNIRP participation**

As a widely recognized international organization in non-ionizing radiation protection, ICNIRP is invited to participate in, or co-sponsor, many international scientific events. In the period covered by this report, ICNIRP has organized and/or contributed to the following meetings:



### ICNIRP Main Commission, SC and Board meetings

ICNIRP Standing Committee IV Meeting	Uppsala, Sweden	14-16 Jan
ICNIRP Executive Board Meeting	Munich, Germany	6 April
ICNIRP Commission Meeting	Ljubljana, Slovenia	20-22 May
ICNIRP Executive Board Meeting	Munich, Germany	14 July
ICNIRP Standing Committee IV Meeting	Stockholm, Sweden	16-18 Oct
ICNIRP Executive Board Meeting	Munich, Germany	18 Oct
ICNIRP Annual General Meeting	Manila, Philippines	10-12 Nov

### ICNIRP Joint Workshops and Seminars

**Conference on NIR and Children's Health** Ljubljana, Slovenia 18-20 May

The workshop jointly organized by COST Action BM0704, ICNIRP, WHO, BfS, EUROSkin and EBFA and hosted by INIS covered all frequency ranges of non-ionizing radiation and brought together expertise in the fields of medicine, epidemiology, biology, electrical and telecommunications engineering, computational physics and risk management. The reviews, research papers and rapporteurs' reports were published as a focussed issue of *Progress in Biophysics & Molecular Biology* 107(3):311-482; 2011. → [www.icnirp.org/Kids/kids&NIRa.htm](http://www.icnirp.org/Kids/kids&NIRa.htm)

**Seminar on the UV Index** Hohenkammer, Germany 5-7 Dec

The seminar was organized in cooperation with WHO and BfS. The UV Index was revisited to ascertain its validity in the light of new scientific knowledge, especially regarding vitamin D and UVA, and to discuss ways of improving its effectiveness as a guide to healthy, sun-protective behaviour.

### Participation in Scientific Meetings and Courses

International Conference of the European Bioelectromagnetics Association (EBEA)  
*Rome, Italy, 21-24 February 2011*

Invited lecture "Scientific Research and Health protection: A mutual perspective"

Symposium "Regulations on Electronic Communication"

Organized by the Faculty of Law, University of Ankara"

*Ankara, Turkey, 3 March 2011*

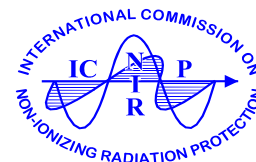
Invited Lecture "Mobile Telephony and Health"

International Conference "EHE 2011"

Organized by the University of Coimbra

*Coimbra, Portugal, 25-28 May 2011*

Invited lecture on "Radiofrequency Fields and Health: Development and Perspectives of Research and Protection"



Conference on EMF Exposure and Health: “Harmonizing EMF Exposure Limits, EMF Policy and Risk Communication”

Organized by the International Telecommunications Union  
*Lusaka, Zambia, 16 June 2011*

Invited Lecture on “The International Commission on Non Ionizing radiation protection: Scope and Activities”

ITU Workshop “Practical Measurement of EMF Exposure”

Organized by the International Telecommunications Union  
*Gaborone, Botswana, 25-26 July 2011*

Invited Lecture on “ICNIRP: Scientific Approach and Protection Standards”

10th Conference BH K CIGRE

Organized by CIGRE Bosnia & Herzegovina  
*Sarajevo, Bosnia & Herzegovina, 27 September 2011*

Seminar “Scientific Bases and Development of International EMF Standards”

Organized by the Council of Mayors of Costa Rica  
*San José, Costa Rica, 27 October 2011*

Seminar “Mobile Telephony and Health: Scientific Knowledge and Protection Standards”

Organized by the College of Physicians of Costa Rica  
*San José, Costa Rica, 28 October 2011*

Radiation Safety Course on ELF, RF, and MW Electromagnetic Fields

Organized by the Department of Health of the Philippines  
*Manila, Philippines, 13 November*

International Forum “Telecommunications Antennas, Development, Inclusion, and Human Health”

Organized by the Peruvian Ministry of Telecommunications  
*Lima, Peru, 13-14 December 2011*

Invited Lecture on “Basic Approach of ICNIRP to protection Against EMF Exposure”

Invited lecture on “Evolution of ICNIRP Guidelines for Radiofrequency EMF”

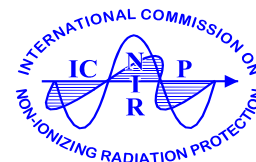
Seminar “EMF in Medicine: Exposure Conditions and Protection Issues”

Organized by San Marcos University  
*Lima, Peru, 15 December 2011*

### **Collaboration with International Organizations**

*World Health Organization (WHO)*

ICNIRP’s co-operation is mainly related to WHO’s International EMF project, and INTERSUN Program. This year a conference on NIR and Children’s Health, Ljubljana, Slovenia, 18-20 May 2011 and a Seminar on the UV Index, Hohenkammer, Germany, 5 to 7 December 2011 were conducted together with WHO (see above).



#### *European Commission (EC)*

ICNIRP provides scientific advice for the evaluation and interpretation of scientific data, and for their dissemination, especially to Directorate General Health and Consumer Protection, Enterprise Directorate General, and Directorate General for Employment, Social Affairs and Equal Opportunities.

#### *Cooperation with COST action*

Under the COST Action “Cooperation in the Area of Science and Technology” BM0704, which started 2008 under Alastair McKinlay’s leadership, the joint Conference on Children’s Health and NIR was held in Ljubljana, Slovenia, 18-20 May 2011 (see above).

#### *International Radiation Protection Association (IRPA)*

ICNIRP and IRPA are linked per Charter and the cooperation is within this framework. Subsequently, the IRPA grants an annual subsidy to ICNIRP. IRPA provides information on ICNIRP activities regarding its publications, current online consultation, the organization of conferences, and the elections on its website. In 2011 IRPA was involved in the nomination process of the election for commission membership as required per Charter. ICNIRP received nominations from the IRPA Associate Societies of the Nordic Countries, Iran, and Hungary.

### **Collaboration with National Organizations Worldwide**

As part of its mission, ICNIRP provides scientific advice on NIR protection to public agencies with an interest in radiation protection in many countries worldwide (see above). These activities are performed mostly through participation in seminar or round tables and the provision of lectures in training courses and scientific conferences, as well as meetings with protection agencies.

### **Budget**

2011 the ICNIRP activities were supported by the German Federal Ministry for the Environment, the Australian Radiation Protection and Nuclear Safety Agency, the European Union, the World Health Organization, the European BioElectromagnetics Association, the International Radiation Protection Association and the Philippines Radiation Protection Association. ICNIRP annual financial reports are audited by the German Tax Authorities every three years. The below tables form the basis of the statements which will be submitted to the fiscal audit in 2013.



<b>Financial Report 2010</b>		
Income		
Subsidies	136.740,98	
Workshop and Books	3.985,92	
<b>Total Income</b>		<b>140.726,90</b>
<b>Expenses</b>		
Staff	60.464,14	
Meetings & Workshops	46.797,54	
Publication & Communication	6.374,63	
Insurance & administrative expense	1.859,38	
<b>Total Expense</b>		<b>115.495,69</b>
Finance income	222,50	
Finance costs	-89,52	
<b>Financial results</b>		<b>132,98</b>
<b>Surplus of the Year</b>		<b>25.364,19</b>

<b>Financial Report 2011</b>		
<b>Income</b>		
Subsidies	125.216,59	
Workshop and Books	41.291,62	
<b>Total Income</b>		<b>166.508,22</b>
<b>Expenses</b>		
Staff	65.447,68	
Meetings & Workshops	86.239,80	
Publications & Communication	6184,98	
Insurance & administrative expense	1.889,57	
<b>Total Expense</b>		<b>159.762,03</b>
Finance income	287,65	
Finance costs	-99,66	
<b>Financial results</b>		<b>187,99</b>
<b>Surplus of the Year</b>		<b>6.934,18</b>

The above reports are indicative and not yet audited. The audited reports will be presented by 2013.