

Turkey

Report on EMF Activities

9th International Advisory Committee Meeting on EMF

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National Non-Ionizing Radiation Protection Center (NRPC)

Dr. Seyhan has been founded National Non-Ionizing Radiation Protection Center (UNRK – Ulusal Non-İyonizan Radyasyondan Korunma Merkezi) in 2004. Detailed information about this center is given in the next page.

General Research Activities in Turkey Related to EMF Health Issues

- Department of Biophysics at Gazi University, Faculty of Medicine is the leader about the studies of biological and health effects of EMF and standards about ELF & RF Electromagnetic Radiation in Turkey. The studies of Gazi Biophysics can be summarized under those headlines ;
 - National Non-Ionizing Radiation Protection Center
 - Experimental Radio Frequency System
 - Experimental ELF System
 - On-Going ELF Researches
 - Telecommunication Authority
- Istanbul University Cerrahpaşa Faculty of Medicine, Department of Biophysics has been studying biological effects of electromagnetic radiation such as the permeability of blood brain barrier.
- Dicle University Faculty of Medicine Department of Biophysics (DİYARBAKIR) is also doing researches related to EMF and health.
- 19 Mayıs University Faculty of Medicine Department of Biophysics (SAMSUN) has initiated some epidemiological studies about children users of mobile phones and health effects.
- Çukurova University Faculty of Medicine Department of Biophysics (ADANA) is studying the biological effects of ELF electromagnetic fields in their experimental systems.
- Adnan Menderes University Faculty of Medicine Department of Biophysics (AYDIN) is studying the biological effects of electric field.
- Marmara University Faculty of Medicine Department of Biophysics (İSTANBUL) is studying the biological effects of ELF EMF in their in vitro experimental setups.

National Non-Ionizing Radiation Protection Center

Founder : Prof. Dr. Nesrin Seyhan, Head Gazi univ. Medical Faculty ,Biophysics Dept.

Aim

- to make researches on the health effects of electromagnetic radiation

- to measure the levels of electromagnetic radiation (5 Hz – 60 GHz)
- assessment of the measurements with respect to the International & National Standards and interpretation of the levels w.r.t. health effects
- to give consultancy on electromagnetic radiation

Two measurements on a base station and High Power Line have already been done and there 're others waiting for.

Experimental Radio Frequency System

Experimental Radio Frequency System is under construction of the Gazi Biophysics Dept. We have been making our researches about ELF electric and magnetic fields since 1980. Now, it will be possible to make also RF studies in our Department. Construction of a special anechoic room is on the way.

On-Going Studies

- Gazi Biophysics & NRPC are planning to publish a book related with electromagnetic fields, biological and health effects and National & International standards about the electromagnetic radiation protection. I hope I could present this book at the next years' IAC meeting. National Non-Ionizing Radiation Protection Center is going to prepare brochures / information sheets about ELF and RF exposure of children / general public / workers and precautionary principle on EMF exposure.
- We're studying on the translations of WHO EMF Fact Sheets into Turkish language for the WHO web site. We are going to create a National Non-Ionizing Radiation Protection Center web site including all of the required information about RF and ELF EMF radiation sources and related measures on EMF protection and WHO fact sheets in our Center web site.
- We would like to be involved in the WHO's Intersun Program on UV this year (2004) as Turkey's representative .
- Since the beginning of 2000 I've been informing local authorities about IARC classification of ELF magnetic fields as 2 B carcinogenic.
- Base stations and high power lines are still an issue of public concern. People don't want base stations near their houses. Cases are being increased on the subject. Municipalities and mayors are holding meetings related with public concern on the topic. In most of the cases expert reports includes PP approaches since occasionally lawyers of environment are involved in the cases related with EMF. Most of the cases are on RF. But especially school administrators are being applied to us for high power lines passing near the school buildings, some of them have HPL in their gardens, distance being just 2-3 meters.
- My staff are heavily working in answering questions, telephones, e-mails on EMF issues and preparing expert reports related with EMF cases.
- Turkey has still no standards for 0 – 10 kHz and 60 GHz – 300 GHz frequency ranges.
- No occupational exposure standard for 10 kHz – 60 GHz frequency range is available yet.

Telecommunication Authority

Telecommunication Authority (Telekomünikasyon Kurumu – TK) was founded as a public judicial entity with a private budget having administrative and financial autonomy on January 27, 2000 in accordance with Article 5 of Law No. 4502 amended by Wireless Law No. 2813 in order to execute the actions envisaged in Wireless Law No. 2813, Law No. 406 on Telegraph and Telephone and other laws, and became effective as from August 15, 2000.

The Authority works under the auspices of Ministry of Transportation. Telecommunication Authority executes among others its tasks under law to establish a dynamic telecommunication sector based on fair and free competition and to protect consumer rights.

Turkish RFR regulation entitled "**Regulation of EMF reference values, measuring methods and auditing of fixed telecommunication instruments working at the frequency band 10 kHz - 60**

GHz” has been published by Telecommunication Authority in **July 12, 2001**. TK regulations are accepted as mandatory for 10 kHz – 60 GHz frequency range since July 2001. ICNIRP limits are taken for total environmental standards and ¼ of ICNIRP limits are used for one RF source standard . This philosophy comes from 4 operators available in Turkey (Aycell, Turkcell, Telsim and Aria).

We have announced these standards in the WHO EMF Project web site.

Telecommunication Authority’s Field of Actions

By using its functions to arrange, authorize, audit and reconcile; to establish a dynamic and strong telecommunications sector based on fair and free competition in Turkey, to develop general strategy policies related to the sector, to take measures enabling the protection of consumer rights, to provide the effective and efficient use of the scarce resources such as frequency and number by planning these resources and to execute national and international activities related to its tasks constitute the field of actions of the Authority. During the preparatory stage of the arrangements executed so far, the Authority has made the procedures related to legal arrangements more transparent, which was first encountered in Turkey, and enabled accession for the related parties and the public by announcing it in the official website of the Authority. This approach which the Telecommunication Authority intended to secure in its legal arrangements and executions will acquire a meaningful position within the traditions of e-state and Turkish Public Management. Other public institutions and organs in need of cooperation and coordination with the Authority and entitled to the task of strategy making, arrangement and application and their general scope of tasks are as follows:

Communication Supreme Board (HYK): HYK is a supreme board comprised of various ministers and public representatives and meeting regularly twice a year under presidency of the Prime Minister. HYK delivers advice to the Ministry of Transportation on Wireless Communication Issues and monitors the applications.

Supreme Council of Radio and Television (RTÜK): RTÜK carries out activities related to the arrangement of radio and television broadcasts, control of broadcast contents and frequency planning and allocation for radio and television broadcasts.

Competition Authority (RK): RK carries out the arrangements and controls related to the establishment and maintenance of competition in the goods and services market. It coordinates with the Authority on issues concerning the telecommunications sector.