

SPECIAL ISSUE FOR THE INTERNATIONAL UNION OF RADIO SCIENCE



The editorial board of *KYBERNETIKA* (CYBERNETICS) has kindly offered the possibility of publishing a set of mostly tutorial papers on the occasion of the XXIIIrd General Assembly of the URSI (International Union of Radio Science) which will be held from 28th August till 5th September 1990 in Prague. The topics cover the fields of interest of the URSI scientific commissions C – SIGNALS and SYSTEMS and D – ELECTRONIC and OPTICAL DEVICES and APPLICATIONS. This special issue of *KYBERNETIKA* should verify the viability of the idea of starting a new journal called SIGNALS, SYSTEMS, ELECTRONICS, which would become a forum for the community of the URSI people active in communications and electronic and optical high technologies.

The fields of scientific activities of both commissions C and D have one common feature. It is the worldwide hunger for efficient, prompt and economically lucrative utilization of new knowledge, inventions and discoveries in communications, electronic, photonic and bioelectronic technologies. Of all URSI disciplines, signals, systems and electronics have the greatest technical impact on progress of human society. It is a paradox, however, that the commissions C and D have not yet fully used the chance to demonstrate their creative potential within the framework of the URSI.

On the basis of such arguments the idea of establishing a scientific journal called Signals, Systems, Electronics was proposed at the conference on the URSI's future in Corsendonk, Belgium, in March 1987. This proposal was the subject of exciting discussions at the XXIIInd URSI General Assembly in Tel-Aviv (Israel). The most serious objection was the competition with many well established journals managed at high professional level especially in the IEEE. Finally we accepted the advice of the distinguished URSI seniors to orient the content of the journal to the tutorials written by prominent scientists.

Unfortunately, the response of the distinguished scientists to whom we sent letters calling for papers was not as broad as we expected. From a rather limited choice of submitted papers we have selected those reflecting most closely the interests of the URSI scientific commissions C and D. We still believe in a feasibility of publishing a professional journal. The journal may attract the young scientists from all URSI member committees giving them the first opportunity to present their

original ideas to the international scientific community. We express our gratitude to the Editorial Board of KYBERNETIKA for its support to the URSI by providing the space in its well known scientific tribune.

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INTERNATIONAL UNION OF RADIO SCIENCE

The International Union of Radio Science (URSI) is one of the scientific unions which adheres to the International Council of the Scientific Unions (ICSU). The object of the URSI is to stimulate and coordinate research requiring international cooperation in the fields of radio, telecommunications and electronic sciences. The members of the URSI are the committees established by Academies of Sciences or similar organizations in respective territories. At present, Member Committees are formed in 40 countries. The URSI was founded as early as in 1919 and has strongly influenced many major developments in communications and electronics. It successfully participated and will continue to participate in large international research programs, like the International Geophysical Year (1957–58), the forthcoming International Geosphere-Biosphere Program and the International Space Year (1992). It has excellent relations with the International Telecommunications Union (ITU) and with both its Committees, CCIR and CCITT. It also has good contacts with several space agencies.

In the URSI the following scientific commissions are well organized:

- A – ELECTROMAGNETIC METROLOGY
- B – FIELDS and WAVES
- C – SIGNALS and SYSTEMS
- D – ELECTRONIC and OPTICAL DEVICES and APPLICATIONS
- E – ELECTROMAGNETIC NOISE and INTERFERENCE
- F – WAVE PROPAGATION and REMOTE SENSING
- G – IONOSPHERIC RADIO and PROPAGATION
- H – WAVES IN PLASMAS
- J – RADIO ASTRONOMY

Since the foundation of the URSI its secretariat has been located in Brussels, Belgium, where the Board of Officers regularly meets. The URSI community feels proud that radio science has been the cradle of unprecedented progress of human society in the field of information transmission and that it helped to provide the means for understanding among individuals, nations and states.