

TG17 - Protection Against Electromagnetic Radiation

Contents of the Final Report

More details are to hand as concerns the planned final report from TG17 which will take the form of international state of the art reports. The Editors who will be working in full cooperation with TG17 Members are:

- Prof. Masahito Yasuoka, Science University of Tokyo, Department of Architecture, Faculty of Engineering
- Mr. Katsuo Yoshida, Obayashi Corporation Research and Development Group of Electromagnetic Environment

The Contents will feature a compilation of refereed and edited responses to the Questionnaire from TG17 members and papers on the two meetings of TG17, the first of which was held at CSTB Head Office in Paris on 17th June 1996 and the second at NIST in Colorado, USA on 29th October 1998.

The Questionnaire was carried out to investigate the state of the art and problems of electromagnetic compatibility in the architectural field in each country. At the two meetings, these were discussed and an electromagnetic measurement method in the architectural field was proposed.

The Contents will be divided into the following six parts.

PART 1. AIM OF ACTIVITY OF TG17

- Proposal of TG17
- Trends and Perspectives of TG17
- EMC (Electromagnetic Compatibility) in the architectural field and significance for TG17

PART 2. SUMMARY OF THE RESULTS OF ELECTRONIC ENVIRONMENT QUESTIONNAIRE

- Contents of the Questionnaire
- Results of the Questionnaire

PART 3. SUMMARY OF THE RESULTS OF ELECTROMAGNETIC COMPATIBILITY PROBLEMS IN THE ARCHITECTURAL FIELD

- Outline of research and development for electromagnetic environment in the Japanese MOC (Ministry of Construction)
- Study on electromagnetic environment
- Activity for Subcommittee on Electromagnetic Environment of the Architectural Institute of Japan
- Electromagnetic interference caused by buildings in Japan
- Current electromagnetic environment measuring technology and problems
- EMC research at BRE
- Magnetic fields and building services

PART 4. EVALUATION OF ELECTROMAGNETIC RADIATION AND PROTECTION TECHNIQUES IN THE ARCHITECTURAL FIELD

- Electromagnetic shielding materials and construction in Japan
- Electromagnetic interference & shielding building

- Design and evaluation of ferrite absorbing panel for TV ghost suppression
- Concept and technical issues of electromagnetic insulated buildings

PART 5. ELECTROMAGNETIC MEASUREMENT METHOD IN THE ARCHITECTURAL FIELD

- An investigation into magnetic field environment measuring techniques
- Testing method of the electromagnetic properties of structures reinforced with high strength fibers
- Measuring methods for shielded rooms: a practical approach
- Prediction models for electromagnetic transmission through building components
- A new measurement method of electromagnetic transmission loss of building components based on two reverberation chambers
- Characterisation of indoor propagation and building components loss factor
- Measurement method of electromagnetic transmission loss of building components using two reverberation chambers
- Propagation radio in the building: a new approach

PART 6. PROPOSAL FOR A PRE-STANDARDISATION OF ELECTROMAGNETIC MEASUREMENT METHOD AND FUTURE PERSPECTIVES FOR ELECTROMAGNETIC ENVIRONMENT IN THE ARCHITECTURAL FIELD

- Electromagnetic compatibility in the architectural field and ISO 9001
- Method for electric field strength measurement of environmental electromagnetic noise (Draft)
- Measuring method of the magnetic field performance of structures reinforced with high strength fibers (Draft)
- Proposal of future perspectives

Members will be kept informed of progress.

