

FOREWORD

This year, the Seventh International Conference on Electric Fuses and Their Applications is held in historic Gdańsk, the town known for events important for many European countries. It is organized by the Gdańsk University of Technology in co-operation with the Polish Association of Electric Engineers on the eve of the 100th anniversary of the beginning of higher technical education in Gdańsk, (which began with the building of the Technische Hochschule Danzig), and the 60th anniversary of GUT, founded by the Polish after the World War II.

It is important to recall that the organisation of periodic meetings of ICEFA is closely associated with the Fuse Club founded many years ago by a group of young visionaries, outstanding fuse people. The Fuse Club is concerned with the international co-ordination of activity leading to the development of theory and application of electric fuses, and the quality of ICEFA. Regretfully, two of its founders i.e. Lipski and Turner have recently fulfilled their missions forever. We pay tribute to the knowledge, dedication and ever-ready helpful hands of these two great colleagues.

The seventh ICEFA meeting sums up the past 27-year period of development of electric fuses. Over that time ICEFA has contributed to a better understanding of physical phenomena associated with the operation of fuses, the development of many valuable ideas concerning new technologies and fuse designs, the elaboration of many fuse standards and improvement of fuse applications and maintenance. Conference discussions has stimulated many brains with ideas, generating new research and new approaches to the application and maintenance of fuses.

The 27-year old history of ICEFA emphasises changes and trends in the development of the protection of power systems, helps in a better understanding of the effect of broad introduction of power semiconductor devices, the processing of numerical data, the consideration of environmental problems and the quality of energy. All these factors have affected in some way the attitude to fuse applications and their development. They close some fields where frequent automatic operation is welcome, and open new horizons, as fault currents limitation becomes more important, protection of high power converters looks indispensable, and reduction of hazards is necessary. In order to promote fuse applications and facilitate understanding their features, a couple of years ago the ProFuse International organisation was created. This year, for the first time ICEFA hosts its President, to encourage broad discussion on actual problems of manufacturing and application of fuses. The presentations on environmental and hazard topics are also important new topics for ICEFA'2003.

In the enlarged European Union standardisation will become more important than ever. Therefore the second invited paper is dedicated to that theme. The first one, will give a vision of the future.

The bulk of papers submitted by the authors taking part in ICEFA'2003 focus on the phenomena associated with the fuse operation. New ideas and technologies, measurements, applications, standardisation are also to be found in the program.

The dynamics of the world economy influences significantly the allocation of funds for fuse manufacturing and research. Asian centres are strengthening and the European ones, especially those in post-communist countries are losing their importance. One notices with regret that publications from previously "ever-present" Russian and Ukrainian teams fail to appear at ICEFA'2003. Although Romanian colleagues submitted a few theoretical papers, they enounced problems with the participation in conference meetings. On the other hand some interest of African countries and Turkey is noted with pleasure. The application of a Chinese group for the organisation of the next meeting of ICEFA indicates that for the first time the centre of inertia of activity in electrical fuses may be moving to Asia.

The ICEFA 2003 Organising Committee believes that the conference meetings and discussions will be interesting, generate new ideas and bring much satisfaction for all participants.

Andrzej Wolny
Chairman
Scientific Committee