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# ICEFA

# 2011

## 9th INTERNATIONAL CONFERENCE ON ELECTRICAL FUSES AND THEIR APPLICATIONS

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# PROCEEDINGS

CONGRESS CENTRE HABAKUK  
MARIBOR, SLOVENIA

12<sup>th</sup>-14<sup>th</sup> September, 2011



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Organized by:



General sponsor of the conference:  
ETI Elektroelement, d.d.



With collaboration of:



**The Fuse Club**

Technical sponsor:



Slovenian Section

Conference: 9th INTERNATIONAL CONFERENCE ON ELECTRICAL FUSES  
AND THEIR APPLICATIONS

Organized by: University of Maribor, Faculty of Electrical Engineering and Computer  
Science, Smetanova ulica 17, SI-2000 Maribor  
ICEM-TC, Gosposvetska cesta 84, SI-2000 Maribor

With co-operation of: Fuse Club

General chair of the conference: prof. dr. Jože Pihler, University of Maribor

Co-chairman: M. Sc. Mitja Koprivšek, Eti Elektroelement, d.d.

Chief editor: prof. dr. Jože Pihler, University of Maribor

Reviewer of the final papers: Peter Brogl, Jean-Louise Gelet, Dr. Robert Wilkins, Norbert Stein,  
Dr. John G. Leach, Stephane Melquiond, Mariusz Wilniewczyk,  
Vincent Saporita, Dr. Bernhard Müller, prof.dr. Constantinos S. Psomopoulos,  
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M.Sc. Mitja Koprivšek, Viktor Martinčič, M.Sc. Darko Koritnik,  
doc.dr. Martin Bizjak, prof.dr. Grega Bizjak

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## FOREWORD

The 9th International Conference on Electric Fuses and their Applications is being organized by the University of Maribor, Faculty of Electrical Engineering and Computer Sciences – Power Engineering Laboratory and ICEM-TC. The Faculty of Electrical Engineering and Computer Science is a scientific institution of explicitly regional, national, and international significance. Its regional significance is reflected in its close co-operation with industry within and around the city of Maribor. Its international significance is reflected in the faculty's participation in international research activities covering numerous projects, exchanges of students and professors, publications in respected scientific magazines, participation at international conferences. ICEM-TC is an independent institute, which was founded in 2001 with the help of the Faculty, ETI, and other industrial companies. The Institute's activities are covering of an applicative, research, development, consultation, educational, and informative nature - documentation, publication, promotional work, testing and measurements in the fields of energy industries, telecommunication, measurement and switching technology.

The ETI Elektroelement d.d. company plays an active part and closely collaborates within the framework of the Organizing Committee and also as a General Sponsor.

Following the previous eight conferences, this conference is being organized in close collaboration with the FUSE CLUB, founded several years ago to increase and exchange knowledge about fuses.

The International Scientific Committee is composed of eminent experts from companies that produce and research fuses, plus some academic representatives. They have done an important work, reviewing abstracts and papers, for which we sincerely thank them.

We would also like to express our gratitude to the Organization Committee, especially Dr. Lech and Dr. Wilkins, who have helped us with their immense experience.

We would like to give preferences to the articles connected with practical industrial work, standardization, and testing. We hope that the authors have been successful in their work.

The Conference Organizers and the entire Conference Team wish you a pleasant and rewarding time at this conference set in the beautiful surroundings of Maribor.

General Chair:  
**Prof. Dr. Jože PIHLER,**  
University of Maribor

Co-Chairman:  
**M. Sc. Mitja KOPRIVŠEK,**  
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# INDEX OF AUTHORS / PARTICIPANTS

<b>A</b>	<b>Page</b>	<b>K</b>	<b>Page</b>
Akatnov N.	40	Karras Y.	143
Averianova S.	40	Kitak P.	109
<b>B</b>		Koprivšek M.	103, 209
Bessei H.	197	Koritnik D.	18
Bizjak M.	209	<b>L</b>	
Brogl P.	53	Leach J. G.	9
<b>C</b>		Liu Z.	97
Cheong S.	61	<b>M</b>	
Cukovic J. P.	218	Martinčič V.	209
Cwidak K.	27	<b>N</b>	
<b>Č</b>		Nedoh Z.	135
Česnik B.	135	Nurse N.	61, 225
<b>D</b>		<b>P</b>	
Darr M.	189	Pesan B.	128
Douglas R.	189	Pihler J.	4, 109
<b>E</b>		Plesca A.	181
Ehrhardt A.	70	Psomopoulos C.S.	143
<b>F</b>		<b>R</b>	
Florena E.	154	Rock M.	70
Fluher B.	109	<b>S</b>	
Funtan P.	88	Saporita V.	189
<b>G</b>		Schau H.	197
Gelet J. L.	32	Schreiter, S.	70
Glotać A.	109	Seefeld V.	53
Glušič D.	18	Stegne M.	109
Gómez J. C.	79,154	Strehar M.	209
Grass N.	119	<b>T</b>	
Gril S.	218	Tičar I.	109
<b>H</b>		Tonkonogov E.	40
Hamler A.	218	Tourn D. H.	79
Hausmann M.	119	<b>V</b>	
Hayashi T.	32	Voršič J.	109
Henze N.	88	<b>W</b>	
<b>I</b>		Wang J.	97
Ioannidis G.C.	143	Wilkins R.	45, 164