2010 IEEE 16th International Symposium for Design and Technology in Electronic Packaging

(SIITME 2010)

Pitesti, Romania
23 – 26 September 2010

ORAL SESSION

Contents

COMPARATIVE ANALYSIS FOR THE SUPERCAPACITORS PACKAGING
CHARACTERISTICS

Carmen M. Lungoci, Electrical Engineering Department, "Transilvania" University of Brasov, Brasov,
Romania

Ioan D. Oltean, Electronics Department, "Transilvania" University of Brasov, Brasov, Romania.

AN FPGA IMPLEMENTATION OF A BRUSHLESS DC MOTOR SPEED CONTROLLER

Bogdan Alecsa and Alexandru Onea, Department of Automatic Control and Applied Informatics,
"Gh. Asachi" Technical University of Iasi, Romania.

POSTER & INVITING TALK SESSION

TOPIC A – TECHNOLOGY – ASSEMBLY AND MANUFACTURING TECHNOLOGY

INVESTIGATING THE MECHANICAL STRENGTH OF VAPOR PHASE SOLDERED CHIP
COMPONENTS JOINTS

Olivér Krammer, Tamás Garami, Department of Electronics Technology, Budapest University of
Technology and Economics, Hungary.

MODELING AND SIMULATION OF CYLINDRICAL PET 2D USIGN DIRECT INVERSION
METHOD

Valentin Stefanescu, Dan Alexandru Stoichescu, Adriana Florescu, Department of Applied
Electronics, "Politehnica" University of Bucharest, Romania

Christian Faye, ETIS, Ecole Nationale Supérieure de l'Electronique et de ses Applications, Cergy,
France.

TOPIC B – ELECTRONIC CIRCUITS – ELECTRONIC CIRCUITS: DESIGN, SIMULATION & MODELING

MATLAB IMPLEMENTATIONS OF PEM FUEL CELL STACK MEMBRANE HYDRATION
SUBSYSTEM

Dan Alexandru Stoichescu, Adriana Florescu, Alexandru Vasile, Alina Elena Sultana, Department of
Applied Electronics and Information Engineering, Faculty of Electronics, Telecommunications and
Information Technology, "Politehnica" University of Bucharest, Romania.

EMFI BASED ULTRASOUND TRANSCEIVERS

Silviu Epure, Radu Belea and Dorel Aiordachioaie, Electronics and Telecommunications Department,
"Dunarea de Jos" University of Galati, Romania.

Contents

Contents

TOPIC C – SYSTEMS & POWER – ELECTRONICS SYSTEMS & POWER ELECTRONICS

Contents

TOPIC D – MICROSYSTEMS – MICROSYSTEMS PACKAGING

TOPIC E – OPTOELECTRONICS & ADVANCED COMMUNICATION PACKAGING

INTERACTIVE COMMUNICATION SYSTEM WITH PATIENTS WITH DISABILITIES – THE SOFTWARE COMPONENT

Vlad Cehan, Radu Gabriel Bozomitu and Constantin Barabaşa, Telecommunications Department, Faculty of Electronics, Telecommunications and Information Technology, "Gh. Asachi" Technical University of Iaşi, Romania.

TOPIC F – RELIABILITY – APPLIED RELIABILITY & THERMAL MANAGEMENT

DATA LOGGER FOR SIGNAL ANALYSIS AND FAILURE PREDICTION

Rajmond Jánó, Dan Pitică, Applied Electronics Department, Technical University of Cluj-Napoca, Romania.

EDLC CHARACTERIZATION PLATFORM

Alexandru Vasile, Paul Svasta, Andreea Brodeală, Cristina Marghescu, Ciprian Ionescu, Center for Technological Electronics and Interconnection Techniques, "Politehnica" University of Bucharest, Romania

Emilian Ceuca, "1 Decembrie 1918" University of Alba Iulia, Romania.

STUDY OF THE ELECTROMAGNETIC PROPERTIES FOR THE Ba2FeReO6 VERSUS Ca2FeReO6 DOUBLE PEROVSKITES IN MICROWAVE RANGE – SIMULATIONAL ANALYSIS

Danilea Ionescu, Vlad Cehan, Department of Telecommunications, "Gh. Asachi" Technical University of Iasi, Romania.

SWITCH MODE POWER SUPPLY USED FOR MEDICAL APPLICATIONS – PACKAGING AND THERMAL ANALYSIS

Lucian Man, Cristian Fărcaş, Applied Electronics Department, Faculty of Electronics, Telecommunications and Information Technology, Technical University of Cluj-Napoca, Romania.

PACKAGING AND THERMAL ANALYSIS OF A POWER INVERTER FOR INDUCTION HEATING APPLICATIONS

Lucian Man, Ovidiu Pop, Adrian Tăut, Applied Electronics Department, Faculty of Electronics, Telecommunications and Information Technology, Technical University of Cluj-Napoca, Romania.

MODELING OF HEAT DISSIPATION IN SMD CHIP COMPONENTS

Radu Bunea, Paul Svasta, Norocel D. Codreanu, "Politehnica" University of Bucharest, Center for Technological Electronics and Interconnection Techniques, Romania.

INVESTIGATION ON EFFICIENCY OF THERMAL RELIEF SHAPES ON DIFFERENT PRINTED CIRCUIT BOARDS

Ioan Plotog, Gaudentiu Varzaru, Radu Bunea, Iulian Busu, Traian Cucu and Paul Svasta, Center for Technological Electronics and Interconnection Techniques, "Politehnica" University of Bucharest, Romania.

OPTIMIZATION OF A BOOST SWITCHING-MODE POWER SUPPLY USING ELECTRO-THERMAL MODELING AND SIMULATION

Catalin Negrea, Marius Rangu, "Politehnica" University of Timisoara, Romania

Paul Svasta, Center for Technological Electronics and Interconnection Techniques, "Politehnica" University of Bucharest.

TOPIC G – EMERGING TECHNOLOGIES – EMERGING TECHNOLOGIES & TRENDS IN ADVANCED PACKAGING

COMPARISON OF DIFFERENT APPROACHES OF MANUFACTURING PROCESS OPTIMIZATION

Pavel Mach, Seba Barto, Czech Technical University, Prague, Czech Republic.

USABILITY OF ELECTRICALLY CONDUCTIVE ADHESIVES FOR POWER COMPONENTS ASSEMBLY

Pavel Mach, David Bušek, Josef Ješ, Czech Technical University, Prague, Czech Republic.

MODELING AND SIMULATION OF DIELECTRIC MIXTURES USING FINITE ELEMENTS METHOD

Cristian Fărcaş, Dorin Petreuş, Niculaie Palaghiţă, Faculty of Electronics, Telecommunications and Information Technology, "Politehnica" University of Bucharest, Romania

Rodica Creţ, Faculty of Electrical Engineering, Technical University of Cluj-Napoca, Romania.

TOPIC H – EDUCATION – CHALLENGE IN GLOBAL EDUCATION

A STUDENT'S POINT OF VIEW ON ENGINEERING PRACTICE

Madalina Dana Pitica, Faculty of Electronics, Telecommunications and Information Technology, Technical University of Cluj-Napoca, Romania.

WEB BASED TECHNICAL SUPPORT ENVIRONMENT FOR PCB CAD TRAINING ACTIVITIES

Bogdan Anton, Paul Svasta, "Politehnica" University of Bucharest, Romania.

Contents