JOINING NEWS

NEWSLETTER OF THE SOCIETY OF PLASTICS ENGINEERS JOINING OF PLASTICS AND COMPOSITES SPECIAL INTEREST GROUP

Message from the Editor

Dear Members,

I want to take this opportunity to thank all of you for being involved in the Joining of Plastics and Composites Special Interest Group. We are currently the third largest SIG in the Society of Plastics Engineers with 1,275 members! Our webpage on the SPE website is now up and running: <u>SPE Joining of Plastics and Composites SIG</u>

Additionally, we have established a LinkedIn group for our group. So far, we have 53 members in the group. All current and past members of the Joining of Plastics and Composites SIG are welcome to join this community to share news, ask questions, post jobs and resumes, and communicate about joining events and issues. Sign up here: SPE Joining of Plastics and Composites Special Interest Group on LinkedIn



On a solemn note, we would like to remember the many contributions of Ed Samuels who sadly passed away on January 15th of this year. Ed was a Senior Vice President at Branson Ultrasonics, where he had worked for 39 years, before he retired in 2005. He was well known for his active interest in the professional and personal development of others, which extended to ensuring funding support for the "Branson dinner", held each year at ANTEC, which brought together researchers from all around the world to network, relax and share cutting edge concepts. Ed will be missed.

At ANTEC 2016 which was held in Indianapolis in the spring, we had a great line up of sessions. We truly appreciate the hard work of those who organized the sessions, the many who volunteered to review papers, and the writers and speakers. Additionally, many thanks go out to all the attendees, without whom we could not have a conference. We kicked off ANTEC this year with a session on Mechanical and Hybrid Joining, from which group our paper of the year was selected by the panel of paper reviewers. The honor went to our own SIG Chair, Sergio Amancio, for his paper titled, "*Preliminary Analytical Modeling Of Heat Input In Friction Riveting."* This session was followed by a session on Adhesive Bonding. The third and last session was on Polymer Joining.



Sergio was presented his award by SIG Technical Program Chair, Phil Bates

We hope that ANTEC 2017, which will be held in Anaheim, CA will be of even greater success than 2016. Papers are due for submission on December 2nd, 2016! Go here for details and to make a submission: ANTEC 2017

Wish you all an enjoyable Autumn!

Miranda Marcus, Newsletter Editor, Joining of Plastics and Composites SIG

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ANTEC 2016 WRAPUP

For everyone who missed this year's ANTEC conference, below are the papers that were presented. If you are interested in obtaining a copy of these papers, please contact SPE.

Session Theme: Mechanical and Hybrid Joining

PAPER TITLE	SPEAKER
EXPERIMENTS WITH HOT TOOL JOINING OF HDPE TO MILD STEEL	Avraham Benatar
JOINING INVESTIGATIONS OF POLYMER-METAL-HYBRIDS FOR PERMANANTLY NON-LEAKING	Stefan Jarka, Uni Kassel
PRELIMINARY ANALYTICAL MODELING OF HEAT INPUT IN FRICTION RIVETING	Sergio Amancio
RESEARCH ON MECHANICAL COUPLING STRENGTH AND COUPLING DESIGN OF THE ABS INJECTION	Lili Chen

Session Theme: Adhesive Joining

PAPER TITLE	SPEAKER
BONDING OF PLASTICS	George Ritter
ADVANCES IN ADHESIVE TECHNOLOGY FOR BONDING LIQUID SILICONE RUBBERS TO PLASTICS AND METALS	Paul Wheeler
TIME IS MONEY: HIGH SPEED ADHESIVE SOLUTIONS FOR INSTANT BONDING	Timothy Holmes
MULTICOMPONENT INJECTION MOLDING OF THERMOPLASTICS AND LIQUID SILICONE RUBBER (LSR) – EITHER CURED BY HEAT OR UV LIGHT	Christof Schlitt
THE ULTIMATE THERMAL TRANSITIONS AND ISOTHERMAL CURING BEHAVIORS OF A TWO-PART EPOXY-AMINE ADHESIVE SYSTEM: EFFECTS OF DIFFERENT MIXERS	Xiaoping Guo

Session Theme: Polymer Welding

PAPER TITLE	SPEAKER
GENERATING ULTRASONICALLY WELDED PARTS WITH IMPROVED STRENGTH AND RELIABILITY FOR CRITICAL APPLICATIONS IN MEDICAL DEVICE MANUFACTURING BY UTILIZING ADVANCED MELT FLOW CONTROLS OF SERVO DRIVEN ULTRASONIC WELDING EQUIPMENT	Alexander Savitski
ULTRASONIC SEALING TOOL DESIGN FOR THIN FILM PLASTICS	Miranda Marcus
COMPARATIVE ANALYSIS OF ENERGY DIRECTOR STYLES WITH SERVO-DRIVEN ULTRASONIC WELDING OF POLYBUTYLENE TEREPHTHALATE	Miranda Marcus
EXPERIMENTAL METHODS TO DETECT DEGRADATION AT THE WELD CAUSED BY LASER TRANSMISSION WELDING	Philip Bates
WELDING OF INCOMPATIBLE THERMOPLASTIC POLYMERS	Mirko Albrecht
DEVELOPMENT OF A FLEXIBLE POLYMER JOINING CENTER	Jan-Michael Geck
ALTERNATIVE WELDING PROCESSES IN APPARATUS, TANK AND PIPELINE CONSTRUCTION AT ENVIRONMENTAL STRESS CRACKING	Ronal Dietz

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