SMT PROSPECTS & PERSPECTIVES

Surface Mount Technology Association—a New Milestone

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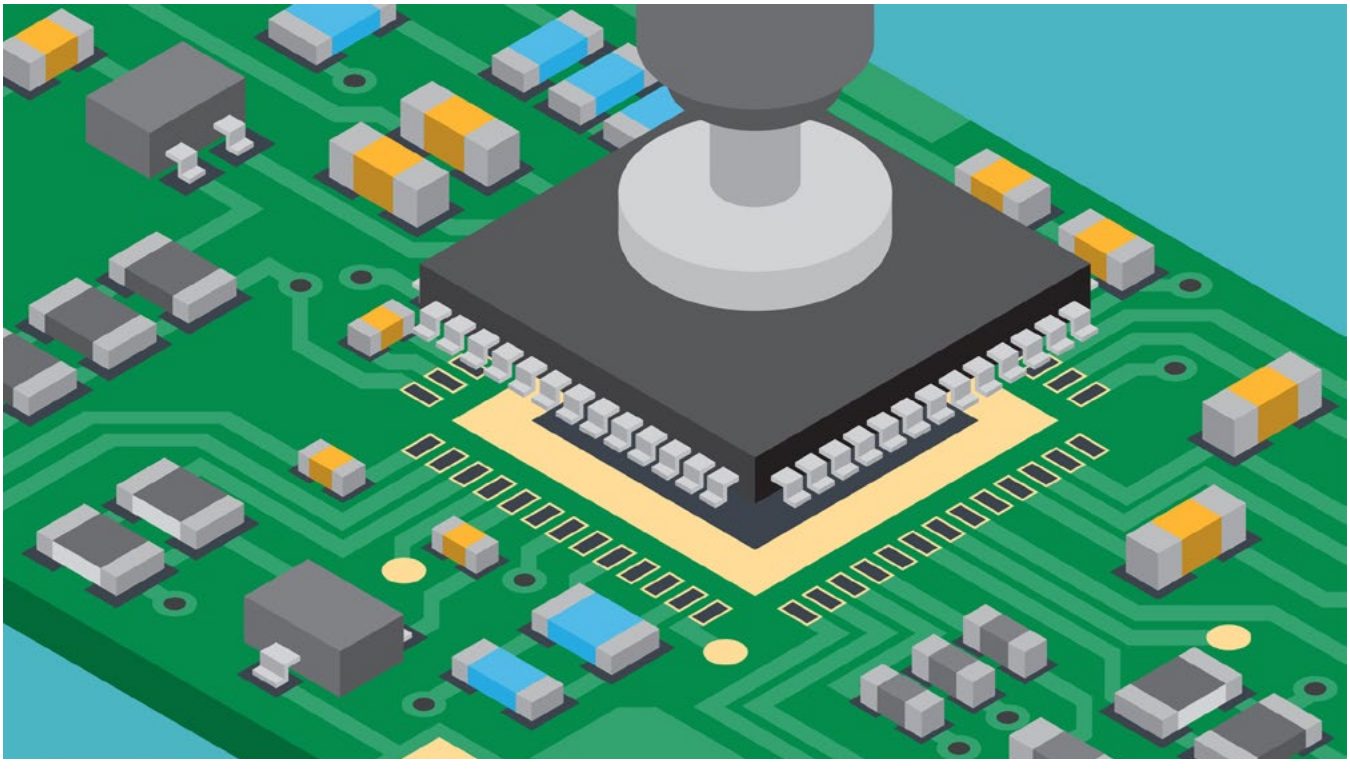
Having served as a past president (on its 10th anniversary), a board member of the organization, and being an SMT industry lifer, I hold especially profound sentiment and affection toward the marching milestones of the Surface Mount Technology Association (SMTA).

With a grand mission, SMTA is an international network of professionals who build skills, share practical experience and develop solutions in electronic assembly technologies, including microsystems, emerging technologies, and related business operations. The organization offers continuing education, as well as career and professional networking for both members and the industry. Most importantly, the organization delivers the right information at the right time to empower the workforce, who collectively advances technology, innovates new products, and serves the global industry.

Initially founded to deploy the surface mount technology, SMTA has served as the backbone of electronics manufacturing for more than three decades. It enables the manufacture of advanced electronics products that are beneficial to virtually all walks of life. The continuing increase in electronics content of products across industry sectors has made the electronics industry the largest employer at the turn of the century. Electronics miniaturization and advancement have been phenomenal, for which SMT has served as the critical manufacturing technology.

Surface mount technology is deemed to be one of the most significant and substantial developments in the electronics era, after the semiconductor. Embracing that the transistor density of integrated circuits doubles every 18 months, and that the advanced chip packaging



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evolves in synchronization, SMT continues to transform electronics manufacturing. To this end, SMTA has played an essential role in helping the industry advance and produce ever-higher performance products.

As a professional organization, SMTA has demonstrated its sustained ability to embrace new technologies to meet members' changing needs and wants. The organization relishes the growth and diversity of SMTA membership and its global reach and network. Its membership spans around the world, comprising more than 40 chapters across the United States, Canada, Brazil, Mexico, Hong Kong, India, Taiwan, Malaysia, and Israel. Today, the organization offers rich resources to the workforce, including knowledge-base, publications, training, bookstore, certification, webinars, and tutorials.

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In Roman mythology, Janus had two faces that looked at in opposite directions—one toward the past and the other into the future.

I want to reflect on what are deemed the most important elements to the successful history of our organization. During the first decade, the Association was shaping up and made major strides in serving the nascent industry. Over the second decade, business models and the global economy challenged the Association, and SMTA responded swiftly with continued success. In its third decade, SMTA has embraced crucial changes in technology and the manufacturing arena and has met the challenges head-on.

The industry has enjoyed a phenomenal growth rate and has contributed to our country and the world by providing critical manufacturing technology that makes modern electronics possible, from personal computers in the 1980s to the Internet of Things today.

SMTA has provided the much needed continuing education to keep up the workforce excellence.

SMTA has enabled the crucial network needed for member companies and individual members globally.

We are fortunate that we have always had dedicated and hard-working board members.

However, behind all these good things is one steady-hand executive administrator, JoAnn Stromberg, and her operating team, which she has built and trained. For nearly three decades, rain or shine or snow storm, JoAnn's personability, wits, and shear warmth have glued all of the pieces together. With JoAnn's dedication, her team, along with the presidents and the board, SMTA has been able to survive, grow and thrive.

At the end of this year, JoAnn plans to retire. I know that JoAnn has a great team in place, and the new leader, Tanya Martin, will continue JoAnn's legacy in making SMTA a strong, wholesome organization.

For JoAnn's extraordinary dedication and contributions to our organization and to the industry, there are no adequate words to express my heartfelt gratitude except to say that from the bottom of my heart, thank you, JoAnn, and enjoy the next chapter of your life!

A celebration in recognizing JoAnn's service will be held on Tuesday evening, September 29 in Rosemont, Illinois, in conjunction with SMTA International. Please click here for details of the event.

Our gratitude also goes to all SMTA staff, members, friends and the industry for their continued support and contributions.

Looking into the future, as we are moving to another milestone, we are vividly energized for our future. And we have profound, substan-

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tive reasons to be energized and proud of our organization. SMTA is an empowering platform from which individuals exchange and enhance knowledge and skills to personally succeed in a way that leads to the collective institutional success. We are grateful for being networked together through SMTA. We are privileged to be a part of this dynamic and relentlessly innovative industry.

As we forge ahead into the fourth decade of our journey, I wish all members and friends of the SMTA community a splendid vista. In my SMTA Newsletter column, "From the President," dated January, 1994, I stated,"... As we celebrate SMTA's fulfilling ten (10) years, we also are preparing to take on the new challenges ahead of us. The challenge that our industry faces in the global economy is to-do-more-faster-with-less. In other words, achieve higher productivity, lower cost and higher quality..."

The mission to meet this challenge marches on... **SMT**

Dr. Hwang, an international businesswoman and speaker, and business and technology advisor, is a pioneer and long-standing contributor to SMT manufacturing since its inception, as well as to the lead-free electronics implementation. Among her many awards and honors, she is inducted to the WIT International Hall of Fame, elected to the National Academy of Engineering, and named an R&D-Stars-to-Watch. Having held senior executive positions with Lockheed Martin Corp., Sherwin Williams Co., SCM Corp, and IEM Corp., she is currently CEO of H-Technologies Group, providing business, technology and manufacturing solutions. She serves as Chairman of Assessment Board of DoD Army Research Laboratory, Commerce Department's Export Council, various national panels/committees, international leadership positions, and the board of Fortune 500 NYSE companies and civic and university boards. She is the author of 450+ publications and several textbooks, and an international speaker and author on trade, business, education, and social issues. Her formal education includes four academic degrees as well as Harvard Business School Executive Program and Columbia University Corporate Governance Program. For further info, visit JennieHwang.com. To read past columns, click here.

Researchers Develop New Techniques for Creating High-Temp Alloys

A new grant seeking to develop new techniques for creating high-temperature materials is taking advantage of Duke University's expertise in computational materials genomics—the computer modeling of novel materials to identify which might have desirable properties.

Led by NC State University's Stefano Curatolo (pictured), the new initiative addresses fundamental scientific questions that could lead to so-called "entropy-stabilized alloys." The initiative also includes the University of Virginia and the University of California, San Diego, and is funded by a five-year, $8.4 million grant from the Office of Naval Research (ONR).

"The Defense Department has a need for materials that are mechanically and chemically stable at temperatures of 2000°C or more," says Don Brenner, Kobe Steel Distinguished Professor of Materials Science and Engineering at NC State and principal investigator under the ONR grant. "These materials can have significant aerospace applications, but the number of usable materials is currently small, and those materials rely on strong chemical bonding to remain stable. At high temperatures, most materials are simply no longer stable."

These alloys are of interest for use in ultra-high temperature applications because of their unique ability to "absorb" disorder in a material's crystalline structure that otherwise would lead to the breakdown of a material.