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# Table of Contents

## Feature

- Paving the Way: Three Women Receive 2021 ITSA Scholarships . . . .14

## Departments

- Industry News ................................................. .6
- Product Spotlight ............................................. .8
- ITSA Member News ......................................... .9
- Technology ..................................................... .10
- ITSA Membership Directory .............................. .12
- Advertiser Index ........................................... .19

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On the cover: 2021 ITSA scholarship recipient Riddhi Joshi.

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- Kristin Campbell
- Katie Pacheco
- Roline Pascal
- Alexandra Quiñones

**Technical Editor**

Daniel Hayden

**Design and Production**

- Carlos Guzman
- Zaida Chavez

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**Advertising**

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FIU Engineering Receives $22.9 Million to Advance Additive Manufacturing Technologies

Florida International University (FIU), Miami, Fla., has received a five-year, $22.9 million grant from the U.S. Army Combat Capabilities Development Command Army Research Laboratory to advance additive manufacturing (AM) technologies that aid in the repair, design, and durability of high-performance materials that will be used to manufacture next-generation vehicles and munitions.

The grant also establishes the creation of a state-of-the-art Cold Spray and Rapid Deposition Laboratory at FIU’s Engineering Campus, the first of its kind at any Florida public university.

“A set of panels being sprayed with Minteq’s FIREX™ RX-2390 thermal protection system in Aerobotix’s enclosed automated spray booth.”

The research at FIU will primarily focus on the development of high-performance metallic materials, which are lightweight and of ultra-great strength, using rapid advanced deposition (RAD) techniques including wire arc, solid-state cold spray, and friction-stir additive manufacturing,” said Arvind Agarwal, chair, FIU Department of Mechanical and Materials Engineering, director of the Advanced Materials Engineering Research Institute, and principal investigator on the grant.

During Phase I and II of the grant, FIU researchers collaborated with researchers from other academic institutions and industries to develop solid-state AM and polymer coatings. This also included collaborations with private manufacturing companies across the country.

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Aerobotix Distributes Hypersonic Missile Coating

Aerobotix, Huntsville, Ala., a FANUC robotics integrator and metrology company certified under AS9100, Quality Management Systems — Requirements for Aviation, Space and Defense Organizations, will distribute Minteq’s FIREX™ RX-2390 thermal protection system coating for hypersonic flight hardware. The robotics company will work directly with Minteq’s Pennsylvania-based Pyrogenics Group, a provider of high-temperature coatings for military and aerospace applications.

Aerobotix and the scientists at Minteq worked together to develop a FIREX RX-2390 recipe and a unique robotic paint dispensing system that is optimized for automation and heavy production. The product’s formulations combine modified epoxy binders with thermally active materials that form cooling gases when exposed to temperatures in excess of 350°F.

“Our desire was to assist our customers and the U.S. government in fielding hypersonic missiles and aircraft as quickly as possible,” said Kent Pfeifer, Aerobotix’s process development manager. “By making the commitment to keep fresh FIREX RX-2390 on our shelves, we can immediately assist the major programs by robotically spraying accurate panels and even prototype parts for flight tests. We’ve been robotically spraying, scanning, and sanding shrouds and rockets already, and now — with coating on our shelves — we cut critical weeks in delivery time.”

Minteq engaged Aerobotix because of the company’s expertise in robotically spraying parts and test panels within extremely tight tolerances for uniformity and thickness of coverage. Aerobotix also has prior experience with major primes using the FIREX product.

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Apply for an ITSA Scholarship

Applications for the International Thermal Spray Association’s (ITSA’s) Scholarship Program are accepted annually from May 1 to July 15. Up to three one-year scholarships worth $2000 each may be awarded and will be announced in August.

The form can be accessed at itsa2.awsmarketing.org/scholarship. Only those meeting all of the following criteria will be accepted for consideration:
• Student must be actively pursuing a postgraduate degree in thermal spray processes (plasma, flame, arc, high velocity oxygen fuel) or materials at an accredited university (United States and Canada only).

• Student must have at least one more year left in studies (after the current year).

• Student must be recommended by a supervisor of the university he or she is attending. The student’s financial need must be verified by a professor.

• Student must be recommended by at least one industrial source. Via letter, the student must present his or her interest in pursuing a career in thermal spray (maximum of three typed pages).

The following conditions must also be met:

• Student must include the completed application form.

• Paperwork must be received from May 1 to July 15; if received outside these dates, the paperwork will not be considered. For any questions, email itsa@thermalspray.org.

Buehler Presents Coatings Webinar

Buehler, Lake Bluff, Ill., is offering the Metallographic Preparation and Analysis of Coatings webinar that discusses the metallographic challenges of coatings.

The webinar is presented by Dr. Mike Keeble, Buehler U.S. technology and laboratories manager. It covers fundamental principles of coatings preparation, recommended preparation routes, solutions for common preparation problems, recommendations on imaging and analysis, worked examples from different families of materials, and more.

This webinar is for metallurgists, metallographers, metallurgical technicians, engineers, and quality control and laboratory personnel in any metallography facility preparing magnesium alloys. It will also benefit those working in adjacent fields, such as mechanical testing, failure analysis, and engineering.

The webinar is free with registration and can be accessed at register.gotowebinar.com/register/3664169099278009611.

Fokker Services Unveils New Component Maintenance Technology

Fokker Services, an independent aerospace service provider, has installed fully automated twin wire electric arc spray technology at its LaGrange, Ga., facility. Together with recent investments in additional machining and grinding equipment, this thermal spray capability allows the team to manage the entire component restoration process in-house for hundreds of part numbers.

Craig Winter, managing director at Fokker Services Americas, said, “At Fokker Services Americas, we continue to bring more component MRO [maintenance, repair, and operations] capabilities in-house. By restoring surfaces on a variety of hydraulic, pneumatic, flight control, and high-speed rotating components in our shop, we are taking control of the total restoration process. The industry status quo is to replace these components with new parts or outsource these types of repairs. By challenging this idea, we are streamlining our processes and passing on the time- and cost-saving benefits to our customers.”

This technology is the latest addition to a range of equipment at the facility, including an eddy current dynamometer test stand, air-driven pump test stand, air cycle machine test cell, and more.

Integrated Global Services Acquires Tube Tech

Integrated Global Services Inc. (IGS), Richmond, Va., a provider of thermal spray and other surface protection services and products, has acquired international cleaning and inspections provider Tube Tech.

— continued on page 19
Program Indicates Powder Coating Equipment Performance

The GemaConnect production information program provides users with full visibility of the status and key performance indicators of their powder coating equipment, regardless of location or time. This web-based tool continually updates and stores powder coating data for comprehensive monitoring and analysis from a single source. All users — whether business leaders, managers, production staff, or maintenance personnel — can access customized data via the dashboard, allowing them to visualize and analyze their KPIs. In addition to viewing real-time information on production, maintenance, and operational status of the plant, users can put customized indicators and favorites on their screens, allowing them to keep critical areas in view. The interactive platform also provides historical information about the performance utilization of the plant as well as relevant process parameters.

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Report Forecasts Thermal Spray Coatings Market to Reach $21.96 Billion

Thermal Spray Coatings Market, By Material (Ceramics, Metals Alloys, Intermetallic, Polymers), By Process (Combustion Flame Spraying, Cold Spraying, Plasma Spraying High-Velocity Oxy-Fuel (HVOF) Spraying), By Application, and By Region Forecast to 2030 has reported that the global thermal spray coating market will reach $21.96 billion in 2030 and register a compound annual growth rate of 7.3% during the forecast period. Rapid technological developments in coating, as well as growing demand for innovative and superior coating methods, are driving the demand for thermal spray coating from numerous end-use industries, such as medical, automotive, and aerospace, among others and hence are expected to fuel market revenue growth. Automotive industry is witnessing rapid advancements across the globe with changing vehicle standards and manufactures are focused on delivering better quality vehicles.

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MADE IN THE USA®
For the past two years, I have had the privilege to serve as the chair of the International Thermal Spray Association (ITSA). As my term comes to an end, I’d like to thank the entire American Welding Society (AWS) team past and present, including Cassie Burrell, Alfred Nieves, and Adrian Bustillo, as well as the ITSA board and all of our members. Unfortunately, due to all the restrictions caused by COVID-19, we were never able to gather in person during my term. I truly miss seeing our dedicated executive board members, the AWS team, and all our ITSA members.

I welcome our incoming Chair Mollie Blasingame as she starts her term, and am eager to elect a new vice chair. Mollie has been a dedicated member of ITSA’s executive board and has a long history of contributing to our association.

Thank you once again to all the members for entrusting me to be part of the leadership team. I have enjoyed serving the members of ITSA, albeit in a slightly different environment than most chairs, and am proud to have been involved with our organization for the last 13 years. I look forward to now serving as a board member and to continue promoting ITSA and our industry.

ITSA MISSION STATEMENT

The International Thermal Spray Association (ITSA), a standing committee of the American Welding Society, is a professional industrial organization dedicated to expanding the use of thermal spray technologies for the benefit of industry and society. ITSA invites all interested companies to talk with our officers and company representatives to better understand member benefits.

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ITSA SCHOLARSHIP OPPORTUNITIES

ITSA offers annual graduate scholarships. Since 1992, the ITSA scholarship program has contributed to the growth of the thermal spray community, especially in the development of new technologists and engineers. ITSA is very proud of this education partnership and encourages all eligible participants to apply. Please visit thermalspray.org for criteria information and a printable application form.

ITSA THERMAL SPRAY HISTORICAL COLLECTION

In April 2000, ITSA announced the establishment of a Thermal Spray Historical Collection that is now on display at the State University of New York at Stony Brook in the Thermal Spray Research Center.

Growing in size and value, there are now more than 30 different spray guns and miscellaneous equipment, a variety of spray gun manuals, hundreds of photographs, and several historic thermal spray publications and reference books.

Future plans include a virtual tour of the collection on the ITSA website for the entire global community to visit. This is a worldwide industry collection, and we welcome donations from the entire thermal spray community.

ITSA SPRAYTIME

Since 1992, ITSA has been publishing SPRAYTIME for the thermal spray industry. The mission is to be the flagship thermal spray industry publication providing company, event, people, product, research, and membership news of interest to the thermal spray community.

JOIN ITSA

ITSA Membership is open to companies involved in all facets of the industry — equipment and materials suppliers, job shops, in-house facilities, educational institutions, industry consultants, and others.

Engage with dozens of like-minded industry professionals at the Annual ITSA Membership Meeting, where there’s ample time for business and personal discussions. Learn about industry advancements through the one-day technical program, participate in the half-day business meeting, and enjoy your peers in a relaxed atmosphere complete with fun social events.

Build awareness of your company and its products and services through valuable promotional opportunities — a listing in SPRAYTIME, exposure on the ITSA website, and recognition at industry trade shows.

Plus, ITSA Membership comes with an AWS Supporting Company Membership and up to five AWS Individual Memberships to give to your best employees, colleagues, or customers. Visit aws.org/membership/supportingcompany for a complete listing of additional AWS benefits.

For more information, contact Adrian Bustillo at (800) 443-9353, ext. 295, or itsa@thermalspray.org. For an ITSA Membership application, visit the membership section at thermalspray.org.
Offline Robot Programming Software: The Differentiator in Robotic Thermal Spraying

The use of robotic automation paves a path toward increasing productivity and output quality while reducing costs and time to market. However, the adoption of offline programming software, allowing manufacturers to get the most out of their robotic investment, is the differentiator.

According to a Mordor Intelligence report, the global thermal spray market was valued at just over $9.8 million in 2020 and is expected to grow more than 2% by 2026. This growth is expected to be driven in part by an increased usage of thermal spray coatings in the aerospace and oil and gas industries.

It comes as no surprise that these two industries dominate the thermal spraying space. This process is commonly used to enhance a component’s performance by improving wear resistance and corrosion resistance or enhancing its thermal resistance properties. By leveraging different coatings, the longevity of components is increased and allows them to better withstand the environments and forces they are exposed to. Thermal spray coatings are not just used as part of the production process of new components. They are also extensively used to repair old components.

Although, in recent years, the aerospace industry has taken an economic hit, an increase in demand is expected for commercial airplanes as the economy bounces back and business and leisure travel returns. This rebound is continuing to drive the production of aerospace components, including the need for thermal spraying.

Similarly, the oil and gas industry is seeing a rebound as the COVID-19 pandemic has accelerated the pivot to new energy sources. The exploration of unconventional gas resources requiring new technological advancements in the equipment used in this industry is a driver of growth while also making it a very competitive marketplace.

As growth in the use of thermal spraying is expected to continue, manufacturing organizations are looking for a way to increase the quality of their components, reduce costs, and increase efficiencies while reducing the time to market and keeping up with market demands. The use of automation and robotics paves a path toward those goals. However, the adoption of offline programming software increases the accuracy, consistency, and efficiency of the thermal spraying.

Quality

In the oil and gas and aerospace industries especially, the quality and accuracy of components are of utmost importance. Achieving a consistent coating when thermal spraying is a critical requirement and can be a challenge depending on how the robot is programmed.

When programming a robot manually, the user needs to maintain a consistent distance between the spray gun and the part, ensure the step overs (amount of spray overlap between passes) are consistent, and, even more challenging, maintain the spray gun at an angle that will eliminate bounce-back, which is extremely difficult to do by eye.

Robot programming software is available in the market to eliminate the challenges that come with manual programming; however, not all of them can take process-specific parameters and apply them to the generated robot program. With offline programming software, like Robotmaster®, users can define process-specific parameters such as deposition speed, flow rates, step overs, stand offs, and spray angles based off the CAD model of the part to achieve the desired coating thickness consistently over the entirety of the component. Intelligent and powerful programming software is also capable of demonstrating a simulation of the process prior to running the program in the real-world cell. This is a powerful validation tool that enables the user to see where the software predicts there will be a lack of coverage so corrections can be made.

Another challenge to component consistency is the variability in finish output from varying manufacturing locations. Each location might output different coating qualities or finishes as a result of varying robot programmers. Flexible robot programming software is able to take the same program and adjust it based on varying robot cell layouts. As a result, the program is created just once and then shared with the different locations to use in their facilities to achieve consistency and reduce the amount of programming time required.

Manufacturers, like McStarlite, who produce some of the largest, most complex sheet metal components for the aerospace industry, leverage an offline programming software solution to program their industrial robot arms to achieve consistent and accurate finishes.

Using high-quality offline programming software is a differentiator when it comes to the quality achieved with thermal spraying. Process-specific parameters can be defined and input
into the software along with the CAD model of the part. The process is simulated to ensure the desired results are achieved, and then optimized, error-free, and ready-to-run robotic code is generated.

**Cost**

The cost of scrap, rework, robot downtime, and long programming times are some of the operating costs as a result of manual programming that can be eliminated or reduced by adopting an alternative method of programming. The increase in the cost of materials is impacting manufacturers in all sectors. This increase either impacts revenues, as it cuts into sales margins, or results in an increase in prices. The additional pressure to keep material costs at a minimum highlights the importance of running production with minimal waste.

These operating costs can be reduced through the use of offline programming software. Scrap and rework are minimized as the process parameters are set within the software to achieve the desired coating.

The process is visualized and simulated prior to loading the program onto the robot, allowing the user to resolve any errors and inconsistent finishes prior to running the process in the real-world environment. Robot downtime is essentially eliminated as the program is completed entirely within the software. Once the program is created and validated, it is ready for production. The robot remains in production, generating revenue rather than sitting idle as with traditional teach pendant programming methods. Programming time can be cut from days to minutes, allowing your robot programmer to focus on other tasks or start programming the next part.

**Market Demands**

Industrial automation delivers the promise of producing more, yielding higher-quality parts in a fraction of the time. With the mass adoption of automation, the market has shifted to demand smaller batches and a higher mix of part complexities. These opposing needs cannot be fulfilled with manual programming, thus the increase in adoption of offline programming software, unlocking profitability for high-mix, low-volume production runs.

The mass reduction in programming time, the ease of use of good offline programming software, and the elimination of robot downtime enable manufacturers to meet these market demands. Companies that make this investment are able to differentiate and keep up with the growing demand for more-consistent coatings and higher throughput rates while reducing operating costs.

Recent economic pressures have caused a pivot to reshoring. Manufacturers are seeing the need to perform additional processes in-house. There are many offline programming software solutions in the market, but one that can program all robot brands (ABB, FANUC, KUKA, Motoman, Stäubli, Universal Robots) for all applications is the ideal solution as it allows for flexibility when adding additional robot brands and manufacturing processes while eliminating the cost of multiple software solutions and training.

**Conclusion**

Thermal spray coatings have been used for more than 100 years. This technology has evolved with the invention of plasma spray, detonation gun, and high-velocity oxyfuel (HVOF) coating technology. Until recently, this process was extremely labor intensive when done by hand. Not long before the turn of the century, thermal spray robots began to be used in the industry. The next technological advancement has come with digital transformation.

The adoption of high-quality and powerful software technology to program thermal spray robots is important to manufacturers who are looking for a way to increase the quality of their components, reduce costs, and increase efficiencies while reducing the time to market and keeping up with market demands.

The use of automation and robotics paves a path toward those goals, but the adoption of offline programming software that allows manufacturers to get the most out of their robotic investment is the differentiator.

*White paper provided by Hypertherm. To view the entire paper, please visit robotmaster.com.*
ITSA Membership

ITSA Mission Statement
The International Thermal Spray Association, an Industry Committee of the American Welding Society, is a professional society dedicated to the advancement of thermal-spray technologies for the benefit of industry and society.

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(513) 699-3992 | cts-inc.net

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Indianapolis, IN
Michael Brennan | michael_brennan@praxair.com
(317) 240-2500 | praxairsurfacetechnologies.com

Sulzer
La Porte, TX
Garret Haegelin | garret.haegelin@sulzer.com
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Beachwood, OH
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Carpenter Powder Products
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(603) 343-2448 | donaldsonntorit.com

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Imerys Fused Minerals
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Mitch Krieg | mitch.krieg@imerys.com
imerys.com

Imperial Systems
Mercer, PA
Tom Frungillo | tfrungillo@imperialsystemsinc.com
(724) 662-2801 | imperialsystemsinc.com

Lincoln Electric
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(216) 383-2951 | linconlelectric.com
Lineage Alloys LLC  
Baytown, TX  
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Dudley West Midlands, United Kingdom  
Stuart Milton | sales@metallisation.com  
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Metallizing Equipment Co. Pvt. Ltd.  
Jodhpur, India  
Ankur Modi | ankur@mecpl.com  
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Midwest Thermal Spray  
Farmington Hills, MI  
Alex Pocket | ap@midwestthermal.com  
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(513) 874-3586 | polymet.us

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Concord, NH  
Richard Thorpe | richard_thorpe@praxair.com  
(603) 224-9585 | praxairsurfacetech.com

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Frank Shao | sales@rockwellpowders.ca  
(905) 470-8885 | rockwellpowders.ca

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Tim Vanden Heuvel | timvandenheuvel@thermach.com  
(920) 779-4299 | thermach.com

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(954) 249-0127 | airglide.expert

David Lee Consulting  
Ligonier, IN  
David Lee | dlee@dalsc.com  
(574) 849-3636

Florida Institute of Technology  
Melbourne, FL  
Frank Accornero | faccornero@fit.edu  
(386) 506-6900 | fit.edu

Florida International University Department of Mechanical and Materials Engineering  
Miami, FL  
Arvind Agarwal | agarwala@fiu.edu  
(305) 348-1701 | mme.fiu.edu

Mason Global Management LLC  
Killingworth, CT  
Richard P. Mason | rmason@masonglobalmanagementllc.com  
(203) 554-9439 | masonglobalmanagementllc.com

The Mozolic Group  
Londonderry, NH  
Jean Mozolic | jean.mozolic@comcast.net  
(508) 254-4375

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Stony Brook, NY  
Sanjay Sampath | ssampath@ms.cc.sunysb.edu  
(631) 632-8480 | ctsr.sunysb.org

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Franklin, OH  
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(937) 704-4020 | strongholdone.com

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Jens Jerzembeck  
jens.jerzembeck@dvs-hg.de  
die-verbindungs-spezialisten.de

GTS E.V., The Association of Thermal Sprayers  
Werner Kroenmer | werner.kroenmer@gts-ev.de  
+49 89 31001 5203 | gts-ev.de

Institute of Materials Malaysia (IMM)  
Johar Juhari | johar_juhari@petronas.com.my  
(603) 5882-3584 | iomm.org.my

Japan Thermal Spray Society (JTSS)  
Nick Yumiba | jtss@mb8.seikyou.ne.jp  
+81 6 6722 0096 | jtss.or.jp

Metal Powder Industries Federation (MPIF)  
James R. Dale | jdale@mpif.org  
(609) 452-7700 | mpif.org

Surface Engineering for Advanced Materials (SEAM)  
Christopher Berndt | cberndt@swin.edu.au  
61(0)4 28 237 638 | arceseam.com.au

Thermal Spraying Committee of China Surface Engineering Association (TSCC)  
Huang Xiao | xiaou@chinathermalspray.org  
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Second Quarter 2022 / SPRAYTIME  13
Riddhi Joshi

Riddhi Joshi, a PhD student at Florida International University (FIU) in Miami, Fla., always yearned to solve the complexities of the world and understand the applicability of the solutions. As an undergraduate mechanical engineering student, she became curious about machinery and its finite element analysis (FEA).

After earning a master of science degree in mechanical engineering from Purdue University, Indianapolis, Ind., pursuing a doctorate degree seemed like a natural progression.

“During my grad and post-grad degrees, I developed my FEA skills and applied them to engineering structures and components at the macroscopic level, like drill tools, engines, and gear boxes. However, I wanted to expand my skills into the world of materials as well. Pursuing this degree [PhD] helps me understand the science of FEA on a microscopic level of microstructures and compositions,” she stated.

Since starting her PhD studies at FIU, Joshi has also learned a great deal about materials science and the role they play in the manufacturing industries.

“It fascinates me how a material has the potential of being fabricated onto surfaces and bulk using various thermal spray processes, which results in improved properties,” she said. “I have been working on a couple of different projects on predicting the mechanical properties of microstructure obtained through thermal spray processes such as plasma spray and cold spray. I am also working on obtaining the simulated microstructure to obtain a three-dimensional bulk material. This will lead to a reduced number of experiments and the time that is involved in acquiring the deposited solid.”

Joshi said receiving the scholarship has made a significant impact on her life both financially and academically, allowing her to pay a portion of her schooling and giving her more time to focus on her research projects without the stress of financial burdens. She also feels proud to be a female in the thermal spray industry.

“It’s an honor and privilege to represent women and to keep striving through the challenges that come along the way of developing new sciences,” she said.

After graduation, Joshi hopes to work as a research and development engineer in the manufacturing industry.

“I would like to be part of projects where fatigue failure of material is a critical challenge and predicting premature failures can be beneficial,” she stated.
Hediyeh Khatibnezhad

As a new mom and a PhD student, when Hediyeh Khatibnezhad received news she was a 2021 ITSA scholarship recipient, it was not only a gift to alleviate financial pressure but also a sign she had made the right choice in following her scientific ambitions.

Originally from Iran, Khatibnezhad is now a PhD student at Concordia University, Montreal, Canada. While earning her bachelor’s and master’s degrees in materials engineering, Khatibnezhad became interested in environmental issues, with reducing pollutants from the environment becoming one of her most ambitious goals.

“Nowadays, water and air contaminations are serious forms of pollution with damaging effects on human health and the biosphere,” she explained. “Moreover, for decades, novel strains of respiratory tract infections have caused human pandemics and initiated widespread illness, death, and disruption. So, removing the pollutants and viruses from our environment has been increasing attention in the scientific world. I was motivated to conduct research on the photocatalytic activity of TiO₂ coatings produced by sol-gel for water purification. Although I was able to activate TiO₂ coating under visible light, it is still challenging to develop coatings in the industrial scale up. I was highly determined to continue my studies to perform a thorough and deep investigation on the topic of my interest.”

Khatibnezhad started her PhD program in 2018 in Dr. Christian Moreau’s research team at the University of Concordia to work on her thesis, “Improving the photoactivity of TiO₂ coatings obtained by thermal spraying techniques.”

“I started at Concordia already with some experience and interest in working with the photocatalytic activity of TiO₂ coatings, but pursuing my goal would have been impossible without this opportunity to work and collaborate with the coatings and thermal spraying experts. More than three years of experience in thermal spraying processes to produce TiO₂ coatings for environmental applications, combined with my educational background and passion, have equipped me to contribute to and advance this field,” she said.

The results of her studies were presented at the 2021 International Thermal Spray Conference, the 9th International Symposium on Functional Coatings and Surface Engineering, and the Thermal Spray of Suspensions & Solutions Symposium + EBCs 2019. Part of her thesis was also published in the Journal of the European Ceramic Society.

Because of these successes, Khatibnezhad was given the opportunity to be part of the collaborative research work funded through Natural Sciences and Engineering Research Council of Canada (NSERC) and Mitacs (a nonprofit national research organization that, in partnerships with Canadian academia, private industry, and government, operates research and training programs in fields related to industrial and social innovation) to help develop novel antiviral surfaces by thermal spray coatings in the perspective of protecting public health against the human coronavirus disease (COVID-19).

“For this project, I have two Mitacs-NSERC COVID-19 joint internships at Metal 7, one of the largest and well-recognized companies in metallic and ceramic coating manufacturing, and Hatch, an international consultancy company in different sectors. The outcome of these internships would be complementary with the NSERC-COVID-19 project to conduct a comprehensive study of the overall performance of different thermally sprayed coatings to protect against COVID-19.”

Khatibnezhad’s long-term goal is to bring industry and academic partners closer together to tackle the world’s challenges.

Emma Peleg

A graduate of the selective LaGuardia School for Performing Arts, saxophonist, and student of music for 12 years, 2021 ITSA scholarship winner Emma Peleg was ready for a change. Her path started when she began attending Stony Brook University, Stony Brook, N.Y., in the engineering science department, which to her seemed like a program targeted for those interested in gaining an all-around background in engineering. Offering specializations in environmental, materials, and nanotechnology, it seemed like a good choice.

She earned her bachelor’s degree in engineering science and decided to stay to complete her master’s degree.

“My nature has always led me to ask the next question. In mechanics classes, we were taught about internal stresses of beams and joints, but what was occurring within the bulk material? Questions like these drove me to look closer, eventually reaching the micro and then nanoscale, where I began to get closer to answers,” explained Peleg. “During my undergraduate years, while looking at engineering failure, the disregard of an ASTM standard was never enough to justify the disaster. Even early on when looking at the root causes of failure in the sinking of the Titanic, words like ‘brittle’ and ‘impurities’ were thrown around, but I had to know why and what was happening in these materials that led to their behavior. What were the mechanisms in the materials that caused their behavior? It quickly became clear that the materials field...
was where I belonged, a place where I could find answers that satisfied my need for detail and explanation.”

She decided to pursue her PhD after spending a summer interning at Sandia National Laboratory’s Thermal Spray Research Lab, Albuquerque, N.Mex. Peleg said the complexity of the thermal spray process appealed to her.

“There is a need for a thorough understanding of the bulk properties of coatings, their ability to resist wear and corrosion to adhere to their working substrates,” she said. “However, as a new field of research, we get to explore on the micro, nano, and macro scales, where we get to see the full picture — a rarity in the field of engineering.”

Drawing back on her early love of the arts, Peleg said she enjoys the materials field because there is also a level of hands-on artisanry and creativity.

“I would like to continue to work as a research engineer so that I can design experiments and, as I often say in the lab, ‘just see what happens,’ with some level of information, of course. My ideal work balance would be mission driven with plenty of room for exploration and collaboration in other fields. I would like to see where thermal spray can be taken in the direction of active materials for electrochemistry and how the ease of application can drive the demand,” she concluded.

**Conclusion**

For 30 years the ITSA scholarship program has contributed to the growth of the thermal spray community.

To apply for 2022 ITSA graduate scholarships, visit page 6 of this issue for more information.
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Industry News — continued from page 7

IGS has more than 30 years of experience in providing in-situ internal thermal spray surface protection, internal ceramic coatings, and environmental products that focus primarily on metal wastage reduction, corrosion mitigation, process efficiency improvements, and emissions reduction.

Tube Tech develops fouling removal technologies, and its research and development program has included the launch of what it claims is the world’s first robotic fouling removal solutions capable of restoring assets to design efficiency regardless of fouling.

“We could not be more excited to introduce Tube Tech to our global customer base,” said Rich Crawford, IGS president and CEO. “This transaction significantly expands IGS’s portfolio of specialty services and enables us to directly address both fouling protection and maintenance to enable world-class asset performance for our clients.”

Oerlikon Metco Expands E-Commerce Site to European Customers

After launching its e-commerce site to U.S. customers in 2020, Oerlikon Metro, Raunheim, Germany, has now expanded its online ordering platform to its European customers.

myMetco (mymetco.oerlikon.com) features an extensive portfolio of materials for a variety of industrial processes as well as spare parts for the company’s thermal spray guns and equipment. Customers benefit from current product pricing and availability, strong search and compare capabilities, free access to expert technical support, 24/7 shopping service, easily tracked orders, and online order fulfillment.

The European rollout of myMetco in early 2022 included the European Union countries (excluding Italy), the United Kingdom, Switzerland, and Norway and is available in five languages. Additional countries will be added during 2022.

AZZ® Inc. to Purchase Precoat Metals from Sequa™ Corp.

AZZ® Inc., Forth Worth, Tex., a global provider of galvanizing and metal coating products, welding products, specialty electrical equipment, and services for maintaining and building critical infrastructure, will acquire Sequa™ Corp.’s Precoat Metals business division for approximately $1.28 billion.

Headquartered in St. Louis, Mo., Precoat is an independent provider of metal coil coating solutions. It engages in the advanced application of protective and decorative coatings and related value-added services for steel and aluminum coil primarily serving the construction; appliance; heating, ventilation, and air conditioning (HVAC); container; transportation; and other end markets.

“We believe the coil coating market will provide sustainable future growth for AZZ,” said Tom Ferguson, AZZ CEO. “And we intend to provide Precoat with the financial resources to expand and further invest in commercial and operational excellence.”

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Praxair Surface Technologies .............................................16
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