Ductile Iron News - Issue #3 - December 2017

**Plymouth, IN**- The Ductile Iron Society held its Fall T&O (Technical & Operators) Meeting at the Swan Lake Resort in Plymouth, IN. This meeting was attended by 106 members and it was done in conjunction with a tour of Rochester Metal Products in Rochester, IN. The first day was made up of all the committee meetings. The first committee meeting was the Research meeting.

It was attended by 45 members and guests. In the afternoon, there was all the committee meetings that make up the Operating Committee of the DIS. Also the Board meeting was held at 3pm. The day concluded with the reception that kicked off the Fall DIS Meeting. This time we did something different. We held a dinner with a guest speaker instead of just the reception alone. The guest speaker was Reggie Brooks from the University of Notre Dame.
Reggie Brooks, a former football All-America running back and graduate of the University of Notre Dame, is in his eighth year as the Director, Student-Athlete Alumni Relations & Engagement.

A native of Tulsa, Okla., Brooks played under former Irish head Coach Lou Holtz from 1989-92. After starting his career as a defensive back, Brooks eventually moved to tailback, where he earned second-team All-America status and finished fifth in the Heisman Trophy voting after a stellar senior campaign in 1992. That season, he rushed for 1,372 yards and scored 13 touchdowns, averaging 122.1 yards per game and an even more impressive 8.0 yards per carry as the Irish went 10-1-1, including a 28-3 rout of Texas A&M in the 1993 Cotton Bowl.

Brooks remains quite visible throughout the Notre Dame record books. His career average of 7.6 yards per rush is still a school record, while his 1,372 yards rushing in '92 rank third-best in single-season school history. Brooks' 227-yard game at USC on Nov. 28, 1992, also ranks as the fourth-highest single-game rushing effort in school history. In addition, he stands among the top 10 in the following single-season categories at Notre Dame: yards per rush (second at 8.0, '92), yards rushing per game (third at 122.1, '92), 100-yard rushing
games (eighth with five, '92) and rushing touchdowns (eighth with 13, '92).

Brooks played four seasons in the National Football League, predominantly in Washington (1993-95), after the Redskins selected him in the second round of the '93 NFL Draft (45th overall pick). He finished with 1,726 career rushing yards, including 223 carries for 1,063 yards as a rookie in '93. He was named to the 1993 NFL All-Rookie Team by the Pro Football Writers of America.

Brooks also previously served as an assistant coach for the Berlin Thunder of NFL Europe and as an intern for the Indianapolis Colts under Tony Dungy.

Brooks graduated from the Mendoza College of Business in 1999 with a Bachelor's degree in Management Information Systems at the University of Notre Dame and received a Master’s in Sport Administration in 2015 from Ohio University.

Mike then introduced our only student who attended the DIS Fall Meeting and his travel expenses were covered 100% by the DIS.

Mark McAllister-University of Northern Iowa
On Thursday, the technical meeting was made up of one panel on "Back to Basics - Ferroalloys." The rest of the day consisted of seven other speakers. The day concluded with a banquet that evening.

The President of the DIS, Mike Galvin started the banquet festivities with the introduction of guests attending. They were Tim Gilbreath of Syscon International, Inc. in South bend, IN and all the invited guests from our host foundry, Rochester Metal Products. Mike then made the presentation of new member certificates to those companies that joined since our Spring Meeting in June 2017 in Chattanooga, TN.

Meritor, Inc. - Research Patron
No picture
Impact NDT - Associate Member

From Left to Right, Rebecca Ward, Mark Schiefer, Mike Galvin & Jim Wood

Customized Energy Solutions - Associate Member

From left to right, Mike Galvin, Michele Kaufman, Dan Fuller and Jim Wood

Thanks to all these companies for their support in the Ductile Iron Society.
Mike then asked Jim Csonka of Hickman, Williams & Company, the morning Technical Chairman, to assist him in acknowledging the speakers. They were;

**Dan Fuller of Customized Energy Solutions**

From L to R, Mike Galvin, Dan Fuller & Jim Csonka

Dan Fuller joined CES in 2016 as Director of Business Development with a focus on delivering low-cost power to industrial and large commercial power customers through automated load management. Integrating large electrical power loads with wholesale market signals, he is focused on delivering direct economic benefits to customers and broader economic and environmental benefits to the power grid.

Mr. Fuller has worked for more than a decade as an investor and advisor with energy, industrial, and agricultural technology businesses, and holds a Bachelor of Science degree in Geosciences from Princeton University.

The DIS welcomes Dan who is here to talk about "Industrial Energy Charges & Management Options" (Not Included)
Phillip has been employed at United Alloys for the last 15 years. United Alloys has been serving the welding, fabrication, industrial services and private proprietors for over 40 years. Phillip has over 37 years of welding experience, having begun his welding career working up through the trade in the shipyards of Norfolk, VA. This amount of welding experience and knowledge of available products has given him the chance to be able to help and serve a large diversified group of people.

United Alloys customer base ranges from State Highway departments, dairy farmers and foundries, to Fortune 500 companies across the USA.

The DIS welcomes Phillip who is here to talk about "Welding Ductile Iron with Ultra Cast" Link
Travis Frush of the University of Northern Iowa

From L to R, Jim Csonka, Travis Frush & Mike Galvin

Travis graduated from the University of Northern Iowa with a Bachelor of Technology in Manufacturing Process Development – Design, in 1994. He earned his Master of Technology in Manufacturing Process Development – Metal Casting, from the University of Northern Iowa in 1996. He is an FEF Scholar and has achieved certifications in Quality Engineering and Six Sigma Green Belt through ASQ. In addition, he has been a member of AFS since 1992 and is currently serving on the Ad-hoc committee for Additive Manufacturing.

He has spent the last 22 years working in Manufacturing, specifically green sand ferrous Metal Casting and Metal Processing operations, where his primary job responsibilities have been focused in the areas of Process Engineering, Quality Engineering, Supervision and Leadership. He returned to the University of Northern Iowa - Metal Casting Center as the Project Manager of the Additive Manufacturing Lab in July of 2015.

The DIS welcomes Travis who is here to talk about "3D Printing for Dummies - Basics of" Link
Dan Coyle of Magma Foundry Technologies, Inc.

Dan Coyle graduated in 2001 with a Mechanical Engineering degree from Bradley University then worked at Castwell Products in Skokie, IL, for 12 years where he started as a Plant Engineer and slowly transitioned into a Foundry Engineer.

After using MAGMA casting simulation software for 8+ years, he started working for Magma Foundry Technologies in January of 2015 as an Iron Applications Engineer where he has been involved in many different casting simulation projects.

The DIS welcomes Dan who is here to talk about "Minimizing Ductile Iron Castings Costs with Autonomous Optimization" Link
Matt Yadlowski of ExOne Company

Matt graduated from Virginia Tech with a degree in economics. He has worked for 20 years in the IT services industry as Data Center Manager and Business Process Improvement Consultant. Matt also worked for 10 years in the tool and die industry in sales and project management.

He joined ExOne in 2013 as regional sales manager for the Midwest and Northwest.

The DIS welcomes Matt who is here to talk about "State of Art in 3D Printing - Production Capabilities" Link

Mike then asked Angela Sell of Applied Process, the afternoon technical chair, to assist him in acknowledging the speakers.
Jim Csonka of Hickman, Williams & Company

From L to R, Angela Sell, Jim Csonka & Mike Galvin

Jim is a graduate of Case Western Reserve University with a degree in Metallurgy and Materials Science Engineering. He has worked as the plant metallurgist at EMI Company and Ward Manufacturing before taking a job with American Alloys as their technical service engineer. In 1993, Jim joined Hickman Williams & Company as a Technical Sales Engineer and is currently located in Pittsburgh as their Technical Manager of Foundry Products.

Jim is the current Chairman of the DIS College and University Relations Committee, an active member of the Research Committee and will be the Chairman of the upcoming Keith Millis Symposium which will be held at Hilton Head Island in October of 2018.

Jim is a past AFS Chapter Chairman and was a member of the DIS Board of Directors from 2007 to 2010.

The DIS welcomes back Jim who is here to talk about "Ferroalloy Production and World Wide Statistics"
Eli David of FerroGlobe

From L to R, Eli David, Angela Sell & Mike Galvin

Eli graduated from the Israel Institute of Technology with his Bachelors Degree in Materials Engineering and Kent State University with his Masters of Business in Finance.

Eli started his foundry career at Quality Castings in Orville, Ohio as Chief Metallurgist and Technical Director, where he was employed for over 10 years - between 1979 and 1989. This position provided extensive exposure to manufacturing, metallurgical and quality aspects of gray, ductile and magnesium castings. In 1989 Eli joined Globe Metallurgical Inc. as Manager of Technical Services, providing tech support to foundry customers world wide.

In 2003 he was promoted to General Manager Foundry Products. Currently he serves as Managing Director Foundry Products, North America for Ferroglobe.

He has made numerous presentations at AFS and DUS meetings on various metallurgical and other cast iron foundry related topics. Eli holds a patent as co-inventor of the Flexipor process - an inmold treatment method for the production of ductile iron.

The DIS welcomes back Eli who is here to talk about "75% FeSi Market Dynamics." Link
Brian graduated from Kent State University College of Technology in 2005 with his Bachelor of Science. He is currently the Ferrous Filtration Product Manager at Foseco in Cleveland, OH.

He has been at Foseco for the last 12 years working on the Ferrous Methoding, Marketing & Technical Team. Brian has made several presentations such as the DIS in 2009, FundiExpo in 2016 and the AFS Casting Congress In 2017. In 2013 he wrote an article for Foundry Management & Technology on "Molding the Future of Large Iron Castings". He is the past Cleveland Akron Canton AFS Regional Chapter Member, Past Chairman of the North Eastern Ohio AFS Recognition Committee, Past NEO-AFS Membership Committee Chair and Past CIC & FEF Student scholarship recipient.

The DIS welcomes back Brian who is here to talk about "Effects of Filter Print Design Changes" Link
Dr. Zhongqing You of Magnetic Analysis Corporation

From L to R, Dr. Zhongqing You, Angela Sell & Mike Galvin

Dr. You has been working at Magnetic Analysis Corporation for over 25 years. I graduated from Iowa State University with PhD in Electrical Engineering with concentration on Nondestructive Testing. My work involves Ultrasonic, Eddy Current and Flux Leakage NDE methods and instrumentation.

The DIS welcomes Dr. You who is here to talk about "Velocity Measurement for Determining Ductility & Nodularity in Cast Iron" Link

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At the end of the banquet, Rick Bean (Director of sales & Marketing) made a presentation to the group on the history of Rochester Metal Products and also what the tour group was going to see the next day.

![Rick Bean of Rochester Metal Products](image)

Thanks to all the employees at Rochester Metal Products who helped to make this run successfully. They were Kellie Swango, Angela Lowe, Staci Benzing, Michelle Herrell, Mike Slaydon, Matt Calcutt, Rick Bean, Tim Opar, Doug Bower, Dave Ditton, Nick Verdolivo, Doug Smith, Don Jervis, Kevin Martin, Drew Shriver, Mike Boucher, Pat Bridgeman, Ron Dishman, Craig Sederholm, Kyle Moudy & Greg Loving. I apologize if we left someone off the list.
Rochester Metal Products

- Privately Owned (ESOP)
- 200,000 square feet
- 300 employees
- Pour gray & ductile iron castings
- Melt capacity - 80,000+ tons / year
- Hunter & Disamatic molding equipment
- ISO 9001:2008 current certificate 11/15/15
Tour of Rochester Metal Products

Please mark your calendar early as our next DIS Meeting will be the 2017 Spring Annual Meeting at the Evergreen Resort in Cadillac, MI with a tour of Cadillac Castings, Inc. The dates are June 6-8, 2018.

Next DIS Activities

- DIS Production Seminar at the Hilton Garden Inn O'Hare Airport on January 30 & 31, 2018. More details are available on the DIS website home page.
- DIS Research Committee Meeting at the Hilton Garden Inn O'Hare Airport on February 1, 2018 at 8:00am to 12 noon
- AFS Metal Casting Congress 2018 in Fort Worth, TX from April 3-5, 2018. We will be in Booth #538
- DIS MetalCasting Forum held every Wednesday from 3-5pm during the DIS Semi-Annual Meetings. Welcome to all attendees
- 6th Keith Millis Symposium will be held October 23-26, 2018 at the Sonesta Resort on Hilton Head Island. Remember this is only held every 5 years. All proceeds go to the FEF and the Keith Millis Scholarship Fund.
Chicago, IL - 2017 FEF College Industry Conference

This year’s College Industry Conference (CIC) was held on Thursday, November 16 and Friday, November 17 in Chicago at the Westin Michigan Avenue. Highlights of this year include 118 student delegates representing 27 FEF certified and affiliated schools, along with more than 200 industry leaders.

Keynote speakers for the Friday morning session were: Rachel Abrahams, Senior Research Engineer, U.S. Air Force; Steve Sikorski, President, MAGMA Foundry Technologies; and Wil Tinker, President, Tinker Omega Manufacturing. All three spoke about their personal journey in the metalcasting world.

FEF presented Gary Gigante with their highest award, the prestigious E.J. Walsh Award. The annual FEF/AFS Distinguished Professor award was presented to Efrain Almanza, Key Professor at Instituto Tecnologico de Saltillo. Additionally, over $57,000 in scholarships were awarded at this year’s CIC.

Once again the DIS had a tabletop display at the career session and we handed out T-shirts to the student delegates and this year's logo was "Ductile Iron - Zero Shades of Gray." Thanks to the following sponsors who contributed money towards the costs of the shirts. They were Rochester Metal Products, Impact NDT, Kohler, Inductotherm, Allied Mineral Products, Foseco, Glidewell Foundry, Hickman, Williams & Company, Superior Graphite, ASK Chemicals, Green Packaging, Buck Company, Elkem, FerroGlobe, Prohimsa Foundry, ASI International, OmniSource, Neenah Foundry, Applied Process and Betz Industries.
Students attending the CIC are selected based on their interest in the metal casting industry, the fact that they are looking for a position in this industry, and their academic excellence. The students also have an opportunity to network and learn more about specific companies during dinner with industry representatives at a wide variety of restaurants in downtown Chicago.

Next year's conference will be held on November 15 & 16, 2018 at the Westin Michigan Avenue in downtown Chicago. Plan now to attend this exciting event.

The DIS presented four students with the Keith D. Millis Scholarship of $3000 each. Representing the DIS were Pete Guidi, Treasurer and Jim Wood, Executive Director.

Thanks to John (Chip) Keough of Joyworks LLC and Jim Csonka of Hickman, Williams & Company for participating in selecting the four students to receive the Keith Millis Scholarships.

David Mendza-Jaramillo, University of Northern Iowa
More information on this conference or any of the FEF activities can be obtained from the FEF offices at 1695 North Penny Lane, Schaumburg, IL 60173 or telephone at 847/490-9200 or the FEF website at www.fefinc.org.

The Ductile Iron Society wishes everyone a safe and enjoyable holidays! See you all again in 2018.

Merry Christmas and Happy New Year from the Staff of DIS & ICRI

Jim Wood
DIS Executive Director
12/11/2017
**NEWS BRIEFS**

**Superior Graphite to Receive Century Award**

**Illinois Family Business of the Year Awards Announced**

CHICAGO (November 14, 2017) – Superior Graphite has been designated to receive the Century Award from the Family Business Center at Loyola University Chicago’s Quinlan School of Business. The annual awards program recognizes Illinois-based family businesses that have demonstrated a strong commitment to family business, contributions to industry and community, and innovative business practices and strategies. The award categories include Small, Medium and Large Family Business Awards, Community Service Award, the Dean’s Award, and the Century Award.

"We are both honored and humbled to have been chosen by the esteemed panel to receive this prestigious Loyola Family Business Center Century award," commented Edward Carney, the company’s President & CEO.

Superior Graphite celebrates a century this year: 100 years of innovation and technical expertise in manufacturing graphite and carbon-based solutions for its global customer base. The company was founded in 1917 by William J. Carney and started with a graphite mine in Alabama. In 1925, Superior Flake Graphite Company moved to Chicago and opened its Bulk Graphite plant.

In 1977, third generation company leader Peter Carney, along with the team of gifted scientists, invented a high-temperature electro-thermal purification process which propelled the company forward. Now, led by Edward Carney, a fourth generation company executive, Superior Graphite has multiple locations globally and continues to carry on the tradition of innovation, ingenuity, and customer focus.

This year’s award winners will be honored at an awards gala on Thursday, November 16, at The Four Seasons Hotel Chicago. The event attracts professionals from across the Chicagoland area.

**About Family Business Center at Loyola University Chicago’s Quinlan School of Business**

The Loyola Family Business Center is an interdisciplinary Center of Excellence dedicated to serving multigenerational, mid- to large-sized family businesses. The center provides learning experiences aimed at increasing effectiveness in planning, problem solving, and preparing current and future generations of family-business owners and managers.

**About Superior Graphite**

An innovation leader since 1917, Superior Graphite provides continuous electro-thermal treatment/purification of graphite and carbons, advanced sizing, and custom-mix
NEWS BRIEFS (CONT'D)

technologies for energy/thermal management, metallurgy, friction, drilling material additives, non-oxide ceramics, and polymers/CASE materials. The company's purpose-created solutions deliver outstanding quality, consistency, and performance across industries and around the globe. For more information, please visit www.superiorgraphite.com or follow us on LinkedIn, Facebook, and Twitter.

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Superior Graphite Expansion and Groundbreaking Ceremony Announcement

New Specialty Carbon Plant Groundbreaking at Hopkinsville, KY

Chicago, Ill. (October 17, 2017) – Superior Graphite announces the expansion and groundbreaking ceremony on Monday, October 30th at 1 pm for the new Specialty Carbon Plant adjacent to one of the company’s existing manufacturing facilities in Hopkinsville, KY. This expansion is tied to the rapidly developing demand for high purity materials, and will serve to satisfy Superior Graphite’s customers' growing needs.

The expansion consists of construction of the new Specialty Carbon Plant and extension of existing warehouse facilities. The plant will perform high-temperature purification of specialty carbons and graphites, and is designed to meet the increased demand for synthetic and natural high-purity materials. The project is scheduled to be completed by the end of 2018, with production starting in the first quarter of 2019. Once the facility is fully operational, it will employ 20 people, thus creating new high-tech local jobs, mainly in engineering.

“This is an exciting time and a timely investment into our 2nd century of business,” said Edward Carney, President & CEO of Superior Graphite. “We are proud to continue to invest in a state that has been so welcoming to us since 1977. We especially look forward to meeting our customers' growing demands for high volume, ultra-pure materials.”

The groundbreaking ceremony will feature Edward Carney, President & CEO of Superior Graphite; Mayor Carter Hendricks, City of Hopkinsville; Chairman Easton Glover, South Western Kentucky Economic Development Council; Judge Executive Steve Tribble, Christian County Fiscal Court; and other company representatives, business leaders and the general contractor.
NEWS BRIEFS

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