NADCA is proud to announce that 21 students have been recognized by the David Laine Intern and Scholarship Program. This is the highest amount of students that have been recognized in one year since the program’s inception, as well as the largest overall award given, with the scholarships totaling $50,250.

“The die casting industry is turning a corner in the realization that they need to develop their own engineering talent stream. It starts with college interns. The David Laine Scholarship fund awarded 21 students scholarships this year,” stated NADCA President Daniel L. Twarog. “The program has grown over the past 11 years and has placed dozens of engineers into the die casting industry. Most of the applicants received $2,500.00 scholarships, which are the highest scholarships awarded throughout the entire metalcasting industry.”

The scholarship fund was established in 1975, and requires that students complete an internship or co-op at a die casting company or supplier to the die casting industry prior to applying for the scholarship. The prerequisite allows students to experience hands-on training in the die casting industry, with the hope that the learning experience will encourage students to continue on in the field after graduation.

“Companies that have invested in these interns not only reaped the benefits of the students’ talents for an entire summer, but also developed an inside track in hiring the next generation engineers into the industry. Investing in the future is what internships are all about,” Twarog said.

The association is pleased to recognize the following 2014 Laine Scholarship winners, their universities, and the companies that provided them the opportunity to work in the die casting industry.

**MARK BOEMKER**
**University of Dayton**
**Honda Engineering North America, Inc.**

Boemker is a Mechanical Engineering major at the University of Dayton who completed his internship at Honda Engineering North America, Inc. in Anna, OH during the spring of 2014. A large amount of Boemker’s time at Honda was dedicated to creating 3D models and 2D drawings for various parts that comprised the tooling of die casts. As a result of his work Honda is now one step closer to manufacture and implement high-quality cast parts in 4-cylinder engines. In addition Boemker also created a new datum for a die, provided assistance to modify models and drawings. He plans to pursue a career in the automotive industry after graduation in part because of the positive experiences I have had in the die casting industry so far. He would like to thank all those who have helped institute and maintain this award every year for the benefit of young professionals. He believes it encourages students to drive themselves to achieve success in the engineering world.

**JACK BOSSONG**
**University of Illinois Urbana-Champaign**
**RCM Industries Inc. - Aalied Die Casting Company - Franklin Park**

Jack Bossong, an Industrial Engineering major at University of Illinois Urbana-Champaign served his internship for RCM Industries Inc. – Aallied Die Casting Company in Franklin Park, IL. During his time at Aallied, Bossong spent a majority of his time in the safety department. He worked with DraftSight, a CAD drafting software, in order to create drawings of the building in the case of emergencies, researched different safety equipment and processes and met with related vendors. This culminated in the companies updated Emergency Action Plan as well as updating of their Personal Protective Equipment. Bossong also created and electronic database of the Company’s chemicals inventory as well as the material safety data sheets. Bossong said that he learned so much, and hopes to be back in the die casting industry next summer.

**CHRISTOPHER CARBERRY**
**University of Illinois at Urbana-Champaign**
**Dynacast, LLC.**

Christopher Carberry is a Computer Engineering major at University of Illinois at Urbana-Champaign. This year Carberry interned at Dynacast, LLC, in Elgin, IL where his main goal was...
to get the Elgin branch started on the road to becoming a 5S company. Carberry created a plan to organize assigned areas of the plant following the 5S structure. All the tasks that he completed had the potential to save a lot of wasted time as well as make each employee more efficient while performing their daily duties. Carberry would like to thank all of the people that he worked with throughout his time in the die casting industry for all of their help and patience. His time in this industry has taught him many important skills that will be invaluable in all his future endeavors.

JACOB CICERO
UNIVERSITY OF ALABAMA AT BIRMINGHAM
NEMAK ALABAMA

Jacob Cicero is a Mechanical Engineering major at the University of Alabama at Birmingham. His internship was conducted at Nemak Alabama. One of Cicero’s biggest projects he worked on was redesigning a break off station for the high pressure die casting machines. The design he is working on will be standardized and universal for all machines, much quicker, and produce fewer problems. He is currently waiting to reinstall the station when another opportunity arises. Cicero expecting to graduate in the spring of 2016 with a degree in Mechanical Engineering. After having such a positive experience with Nemak, he is definitely interested in pursuing a career in the die casting industry.

AUSTIN CLINE
WESTERN MICHIGAN UNIVERSITY
INDUSTRIAL INNOVATIONS INC.

Austin Cline is an Electrical Engineering major at Western Michigan University. Cline interned at Industrial Innovations Inc. in Grandville, MI. During his internship he experience a variety of different tasks such as building individual spray head parts, spray head machines, and lubricant testers. In the future Cline plans on working further with electric panels, electric motors, and selected programming. He believes that this award will assist him with completing his degree and will advance his skills for working in the die-casting industry.

KATIE DEMAREE
ROSE-HULMAN INSTITUTE OF TECHNOLOGY
MADISON PRECISION PRODUCTS

Katie Demaree is a Bio-medical Engineering major at Rose-Hulman Institute of Technology. Her summer was spent interning at Madison Precision Products in Madison, IN. Demaree started her internship learning the different parts that Madison manufactures, helping with inventory management, and taking certain test parts to the quality lab for inspection. In addition, she was also introduced to Catia, the company’s modeling software program. She also spent time assisting with budgeting and later in the summer partnered with the IT Department to set up and program a new budgeting schedule and database. Damaree also got a chance to be on the floor working with die maintenance and the machines. She found this to be one of the most rewarding and knowledge filling parts of the whole internship. After graduating from Rose-Hulman Institute of Technology in May 2017 she is considering strongly working in die casting.

JUSTIN HANSEN
WESTERN ILLINOIS UNIVERSITY
TWIN CITY DIE CASTING CO.

Justin Hansen is an Engineering Technologies student at Western Illinois University and interned at Twin City Die Casting in Minneapolis, MN. During his internship Hansen worked in areas such as tool maintenance room, the cast shop, secondary machining, quality, and engineering. Hansen completed a number of projects in these various areas and overall became more familiar with the die casting industry and the processes that are involved. While working in these areas for Twin City Die Casting he gained valuable experience that he feels will be able to carry with him into his senior year of college as well as into his future career.

CRAIG HART
WRIGHT STATE UNIVERSITY
FORT RECOVERY INDUSTRIES INC.

Craig Hart is a Management Information Systems major at Wright State University. 2014 marks Hart’s fourth year interning at Fort Recovery Industries Inc. in Fort Recovery, OH. His primary duties were in the CNC machining department with focusing on several machines called Wasino. At the Wasino, he was responsible to run the four mills and wash and pack the Fort Recovery Industries casted aluminum pistons that are used in Carrier air-conditioner units. In running the
Wasino, he was also responsible for gauging and adjusting the machine when the pistons become out of speck, as our requirements are within forty thousands of an inch. His responsibility also required him to fix the machine when errors and items break on the machine such as sheer plates. As he continues his education he hopes to still work at Fort Recovery Industries Inc., and upon graduation hopes to make a career there.

MATTHEW ISOLA
UNIVERSITY OF WISCONSIN-MADISON
RCM INDUSTRIES INC. - INLAND DIE CASTING COMPANY

Matthew Isola is an Industrial Engineering student at the University of Wisconsin-Madison. He spent his summer working on a number of projects to improve the efficiency of RCM Industries Inc. - Inland Die Casting Company. Isola’s first task was to improve the quoting process to ensure parts are quoted correctly. The largest project he worked on was implementing SMED (Single Minute Exchange of Die) into Inland’s die set-up procedures. Isola also analyzed the current water system at a sister facility and compared it to Inland’s water system. He performed a gap analysis and set-up an action plan. Isola has had an incredible experience at Inland working in the die casting field, and he sees potential for himself in the field after he completes his studies.

DAVID KEMMENOE
CORNELL UNIVERSITY
FORT RECOVERY INDUSTRIES INC.

David Kemmenoe is a Mechanical Engineering PhD student at Cornell University. Kemmenoe worked as a manufacturing engineering intern at Fort Recovery Industries Inc. in Fort Recovery, OH. During his time there he coordinated the moving of 4 small die cast work-centers. He found that his experience gave him a thorough introduction to the die casting industry. He plans to do research during his graduate studies in the solid mechanics sub-field of mechanical engineering.

MICHAEL KORN
THE OHIO STATE UNIVERSITY
RCM INDUSTRIES INC. - INLAND DIE CASTING COMPANY

Michael Korn is a Business major at The Ohio State University. Korn interned at RCM Industries Inc. - Inland Die Casting Company in Wheeling, IL. A great deal of his focus while he interned was in the area of safety and Personal Protective Equipment (PPE). There are a variety of business factors including the comprehensive costs associated with running a business. Because employees represent such a significant portion of the business investment, keeping them safe and productive is critical for both the individuals and the organization. The work that Korn did thus far at Inland has provided him with real world examples and experiences that he can take with him as he continues his education. He is looking forward to returning to Inland Die Casting this summer and being able to contribute more based on the business skills that he has learned thus far.

EDWARD KRETCH
SOUTHERN ILLINOIS UNIVERSITY CARBONDALE
SPARTAN LIGHT METAL PRODUCTS, INC.

Edward Kretch is a Mechanical Engineering student at Southern Illinois University Carbondale. Over the summer Kretch worked as an intern with Spartan Light Metal Products in Sparta, IL. He designed work stations and fixtures for various operations utilizing Spartan’s CAD system. He also worked on control plans, process documents, and work instructions. Kretch gained additional experience as he helped run equipment and helped conduct studies on parts. His internship gave him a real look at what he would be doing in the future and has said that it makes him even more excited than he was before to go to work after he graduates.

WILLIAM MCKONE
UNIVERSITY OF WISCONSIN-PLATTEVILLE
MINNEAPOLIS DIE CASTING LLC

William McKone is an Industrial Technology Management major at the University of Wisconsin – Platteville. McKone interned at Minneapolis Die Casting LLC in New Hope, MN. He spent most of his internship shadowing the senior process engineer, and learned the die
casting process from the beginning design stages through the end of production. McKone frequently found himself in the tool room reviewing and repairing the tools. He was also able work on a number of projects that he then saw put into production. His internship lead him to gain a new perspective on the die casting process, and has sparked an interest in pursuing a career in the die casting industry. He is currently taking a number of classes related to the metal casting field in order to expand his knowledge of the foundry industry which he hopes to apply to his career after college.

**BRENDAN MELNICK**
**PURDUE UNIVERSITY**
**CHICAGO WHITE METAL CASTING, INC.**

Brendan Melnick is a Mechanical Engineering major at Purdue University. Melnick interned with Chicago White Metal for his third time in the summer of 2014. During his time at CWM he assisted with CAD model work, customer part analysis, project management and mold flow simulation. In addition, Melnick took the lead in purchasing a new aluminum furnace for CWM. He commented that these internships in which he was cross-trained outside of engineering has really shown him how much an engineering degree helps in building an efficient operation, and truly how exciting American manufacturing can be.

**AMelia PIERSOn**
**THE OHIO STATE UNIVERSITY**
**RIMROCK CORPORATION**

Amelia Pierson is a Food Engineering major at The Ohio State University. This year marked Pierson’s third summer interning at Rimrock Corporation in Columbus, OH. During her time in the engineering department she completed robot simulations for cell layout confirmation, detailed drawings for design for manufacture components and a spray nozzle performance analysis for Rimrock’s line of spray nozzles. She hopes that with the help of this scholarship and all of her experience at Rimrock, she will be able to excel in her coursework and will hopefully be able to continue working with robotics and machinery as a career.

**THOMAS RING**
**TENNESSEE TECHNOLOGICAL UNIVERSITY**
**WALKER DIE CASTING, INC.**

Thomas Ring is an Engineering Technology major at Tennessee Technological University. Ring has been interning at Walker Die Casting, Inc. in Lewisburg, TN, since May of 2012. As a project engineer intern he has had many, varied responsibilities. He has run special projects to troubleshoot customer issues with quality. After pinpointing the exact problem Ring helped adjust the die casting machine so that the issue (porosity) would not occur in a specific spot. Ring was also was put in charge of a big safety project. He had to document all the dies that Walker had in the plant by their weights and locations in order to prevent accidentally dropping a die in transport. Ring also was placed in charge of building a leak tester machine. He stated that he had an excellent experience working in the die casting industry over the last year, and he will definitely pursue a career in this field.

**VINCENT RUEDINGER**
**UNIVERSITY OF WISCONSIN - MADISON**
**MERCUry MARINE**

Vincent Ruedinger is a Materials Science and Engineering student at the University of Wisconsin - Madison. Ruedinger interned at Mercury Marine in the Materials Lab. During his time in the lab he was exposed to all aspects of materials engineering including corrosion testing, failure analysis of die cast, lost foam, investment cast, sand cast, forged , welded, extruded and machined components used in the manufacturing of Mercury’s outboard and stern-drive products. Ruedinger worked closely with Dr. Raymond Donahue on an experimental heat treatment method for die casting. If successful, it will allow for T6 mechanical properties from die cast parts, increasing their strength and ductility – opening market applications for die casting that were not previously thought practical.

**JOSEPH SCHWARTZ**
**UNIVERSITY OF ILLINOIS (URBANA CHAMPAIGN)**
**RCM INDUSTRIES INC. - INLAND DIE CASTING COMPANY**

Joseph Schwartz is an Industrial Engineering student at the University of Illinois (Urbana Champaign). This year marked Schwartz’s third year as an engineering intern at RCM Industries Inc. - Inland Die Casting Company. Schwartz was able to use Solidworks 3-D modeling software while also continuing to improve his skills in Autodesk Inventor and CAD.
He also assisted in the maintenance department. He was tasked to create a new spare parts cage outside of the maintenance office. Using AutoCad he was able to create a layout of the area that was to be used and how spare parts would flow in and out of the area as efficiently as possible. He was able to directly see how a more efficient spare parts system could drastically reduce down time, thus making more quality castings and making the maintenance technicians jobs easier. Schwartz also worked closely with Gary Grochowski, a consultant hired to help make the foundry department more efficient, safer, and easier on the workers.

Wilson Spivey is a Mechanical Engineering student at the University of Tennessee at Martin. Spivey interned in the maintenance department on the rebuild crew at Walker Die Casting, Inc. The rebuild crew is responsible for reworking and assembling new machines. Spivey had the privilege of building a die cast machine from the ground up; consequently, he learned how a die cast machine works and what all is required for one to run efficiently. Spivey plans to go back to Walker Die Casting Inc. in the spring and work on the next project or challenge they have for him. Upon his graduation from the University of Tennessee at Martin he would like to return to Walker Die Casting as a mechanical engineer and help to improve and make the die casting process as efficient as possible.

ANDREW STORLIE
LUTHER COLLEGE
DECO PRODUCTS

Andrew Storlie is a Physics major at Luther College. Storlie interned at Deco Products in Decorah, IA. His internship covered a number of different projects starting with an overall shot velocity reference for all of the large tonnage machines at Deco Products. This project opened up more questions on why they were seeing discrepancies in the shot velocities where there shouldn’t necessarily be any. This then led to an in-depth cycle time study that encompassed a great deal of changes that decreased the cycle times of machines an average of more than 10%. A final project that went along with this idea was realigning the tie bars of the machines and organizing a process to repair the unite holders so that maximum lock up could be achieved (consistently) with as flush a surface as possible.

Are you ready to find a die casting intern for the summer? NADCA can reach out to local universities or technical schools, and has a database of current student resumes available online at: www.diecastingdesign.org/interns. NADCA also offers guidance on what companies should expect when hiring an intern on its Web site at www.diecasting.org/scholarship/laine.

Finally, the David Laine Intern & Scholarship Program is supported entirely by contributions and pledges from the die casting community. Your help is appreciated, and goes directly into helping emerging engineers finance their education, while spending time in our industry. Visit www.diecasting.org/scholarship/laine to find out how you or your company can help.