

2015  
2016



2015-2016 ANNUAL REPORT

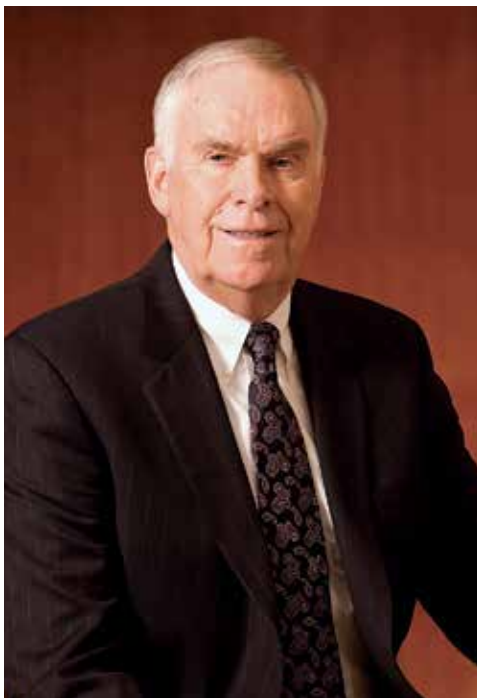
"Advancing The Concrete Industry By Degrees."

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AS WE RECAP the National Steering Committee's (NSC) activities for fiscal year 2015-16, it is appropriate to label it the year of milestones. This year marked the 20th



anniversary of the launch of the initial CIM program at Middle Tennessee State University. From that initial modest start, it would have been difficult for anyone to predict that twenty years later there would be four CIM program universities that collectively have produced more than 1,000 graduates. Even more impressive is the fact that more than 80 percent of those graduates have remained in the industry. Therefore, it is accurate to claim that CIM is, in fact, helping to **“advance the concrete industry by degrees.”**

All of this has been accomplished in spite of

the industry experiencing four years of the worst business recession since the Great Depression. Today, as the industry continues to recover and experience growth that it has not experienced in the last ten years, the demand for CIM graduates is accelerating. All CIM 2015-16 graduating seniors had multiple opportunities for employment to choose from as demand exceeded supply. The challenge now for the NSC is to promote, support and grow CIM to keep pace with the industry's appetite for graduates.

The success and growth of the CIM programs is directly proportioned to the industry's continued financial support.

The NSC and the four local Patrons' groups have fundraising responsibilities as a key component of their missions. In order to keep pace with this accelerated demand, the NSC has achieved two additional fundraising milestones this past year. The first milestone was holding the tenth annual CIM/NSC World of Concrete (WOC) auction. The second milestone was achieving record-setting auction proceeds. Since its inception, the auction has emerged as the single largest means for the NSC to raise funds for program support. We are greatly indebted to our partners, WOC and Ritchie Bros., who have contributed greatly to the auction's success. Because of the success of the auction in recent years, the NSC has been able to increase its support of program universities. One recent means has been the adoption of an additional scholarship program targeting new students entering the program. During the year, the NSC, in collaboration with its local Patron partners, contributed additional new student scholarship funding to each program. The results of this investment were impressive and are detailed later in this report. The use of the revenues raised from the auction are detailed in the financial report section of this annual report.

Equally important as fundraising is the NSC's oversight and management of all CIM programs. Paramount in the NSC's oversight responsibility is ensuring a high quality of consistency of all graduates. This responsibility is delegated by the NSC Board of Directors to the NSC Education Committee. The Education Committee is a collaborative committee populated by academic representation from all four participating universities in conjunction with representatives from concrete industry national associations, foundations and participating companies. Much of the Education Committee's activities are directed towards the CIM core curriculum, which is consistently reviewed for enhancements and to ensure uniformity across all programs. You can learn about all of the ways the Education Committee has carried out its mission over the 2015-16 academic year by reviewing the Education Committee section of this report.

# INTRODUCTION FROM THE EXECUTIVE DIRECTOR



In order to ensure that the CIM program continues to grow, the NSC delegates funds to the promotion and marketing of the program and its auction fundraising initiative. This responsibility belongs to the NSC Marketing Committee. Once again, due to the success of the auction, the Marketing Committee was able to significantly increase its promotional activities during the year. When you review the Marketing Committee section of this report, you will see the many ways the committee is publicizing and promoting the program and the auction.

The many successes of the CIM program can be directly linked to the fact that the NSC, since the inception of the program twenty years ago, has executed a well-conceived game plan. The overall direction is delegated to the NSC's Long-Range Planning Committee (LRP). Annually, the LRP reviews and makes adjustments and additions to the plan in order to ensure the NSC continues to advance CIM to achieve its mission of providing the concrete industry with future leaders.

All of the activities of the NSC I have listed, and many more, are made possible through the dedication of industry members who donate their time to serve on the NSC. The activities of the NSC are overseen by a Board of Directors and carried out by the active committees. Those serving on the NSC represent many aspects of the concrete industry

as well as the program universities. As you review this report you will recognize many of the names of concrete industry leaders that populate our Board of Directors and chair our committees. We are fortunate to have their dedication and leadership for this most important concrete industry initiative. The NSC restricts its efforts to activities that are directed at advancing the overall CIM program on a national platform. Therefore, the NSC committee is populated by individuals who represent concrete industry associations, foundations and companies that have a national orientation. However, the success of the program is dependent on the three-legged stool partnership of the program universities, the local industry Patron groups and the NSC. Each of the local industry Patron groups focus their efforts on assisting the growth and development of their individual university's CIM program, consistent with the NSC's LRP. The membership of the local Patron groups is open to any company or individual located in the region where the represented university resides.

I hope you enjoy your review of this annual report, and we thank you for your support of the CIM program. If you are not currently engaged in either a local Patron group, the NSC or in supporting the NSC auction, as you peruse the report it is my hope that you will become motivated to become involved. If you need assistance, do not hesitate to visit our web site at [www.concretedegree.com](http://www.concretedegree.com).

Sincerely,

**Eugene Martineau**

Executive Director, CIM National Steering Committee

WELCOME TO THE SEVENTH CIM PROGRAM annual report which gives our industry supporters an update of this past year's activities and accomplishments. The report shows the current status of all four of our current CIM programs. Each of the institution reports shows enrollment information, faculty updates/research, student activities/service projects, Patrons' group activities and program financial information.

This report also shows the work of each of the CIM committees. The efforts and work product of these committees allow the CIM program to remain unique within our industry. CIM students are able to complement their classroom education with field trips and the opportunity to attend various industry events. This past year, I had the opportunity to interact with CIM students at ACI, ASCC, NRMCA and World of Concrete events. Students have competed in the ACI student competitions and have done very well and have always proudly represented CIM and their universities.

The Education Committee, under the leadership of Dr. Rex Cottle (Trinity Industries), has had a busy year. This committee reviews the five-year strategic plans that are submitted annually by each of the universities. They continue to monitor the learning outcomes and objectives of the various CIM courses and help coordinate the best practices of each of our four programs. The Marketing Committee under the leadership of Brian Gallagher (O'Neal) continues to inform prospective students and the industry about the CIM program. Through the website and social media, people are able to stay abreast of the latest CIM events. The Long-Range Planning Committee, under the leadership of Alan Nedza (BASF), continues to provide vision and direction for the CIM program. The Finance Committee, under the leadership of Nicole Maher (NRMCA), is responsible for making sure we leverage the financial support which our industry generously provides.

World of Concrete and Ritchie Bros. Auctioneers continued their support of the annual CIM Auction. Under the leadership of Mike Philipps (CEMEX), the Auction Committee (with unprecedented industry support) raised a record setting \$925,000. This event has become the major source of income for the CIM National Steering Committee

and allows us to continue funding the four programs and provide scholarships to students.

The Executive MBA program at MTSU, under the leadership of Dave Vickers, Dr. Heather Brown and Ayaz Ahmed, is now in its third cohort. MTSU is actively recruiting candidates for the next program which will start in August of 2017. This is just one more example of how the CIM program is providing a steady stream of qualified future leaders to the concrete industry.

I would like to thank all of the local Patron groups which have been the backbone for CIM. These groups continue to provide guest lecturers, sponsor field trips, hire students and graduates and provide financial support that matches or exceeds that of the National Steering Committee. One of the most exciting things about the Patron groups is the growing leadership role which is being provided by CIM alumni.



All of us are now engaged in a recruiting war for talent. This is caused by several things including the continued economic recovery of our industry and the current and impending retirement of the "baby boomers." We need your continued support for CIM as we try to fill the leadership pipeline and we need everyone's help in recruiting students to the program. We must also continue to provide internship opportunities for the students and full-time jobs for the graduates. Working together we can provide the leaders that this industry will need in the future.

Thank you for your continued commitment to the CIM program. Please review this annual report and feel free to share it with others. Any suggestions and comments are welcome.

Sincerely,



**Mike Schneider**

Chairman, CIM National Steering Committee



## DR. REX COTTLE

**Chairman**  
Education  
Committee

THE DEMAND FOR CONCRETE INDUSTRY Management graduates continues to increase as the construction industry recovers from the great recession. To meet the growing demand, our CIM programs have aggressively recruited students, expanded course offerings and developed strategic initiatives for future expansion. Last year, the CIM National Steering Committee (NSC) and the CIM Patrons provided matching funds for scholarships to help attract quality students into our programs.

The Education Committee assessed the impact of these scholarships on entering students during the past academic year and found a high student retention rate. The scholarships were a significant financial help to the students and showed them the commitment that the concrete industry has in preparing CIM students for rewarding careers in the concrete industry. As a result of the success from last year, the NSC and the local Patrons extended the scholarship program for the coming academic year. Some of the scholarships will be designated for non-traditional students, community college transfers, and military personnel who are returning to civilian life.



The Education Committee reviewed how the CIM programs have implemented the recommendations by the visitation team from the initial industry accreditation cycle. The Education Committee will continue to work with each CIM program to ensure compliance with the accreditation objectives. The second industry accreditation cycle will begin next year. The NSC will assess accreditation options as part of the Long-Range Planning process.

Students selected from every CIM program competed for the second annual Bob Weatherton Award at the World of Concrete in February 2016. Each student presented either his or her capstone project, internship experience or community project. We greatly appreciate the World of Concrete for the opportunity to showcase our CIM students to the attendees.

The Phase II joint research activity, funded by ASCC, ACI Foundation and RMCREF, supported all of our CIM programs investigating surface void tolerances on concrete walls. This is a wonderful example of how collaborative research by the CIM faculty is benefiting the concrete industry.

The Education Committee is planning a curriculum update with representatives of the concrete associations to ensure the most contemporary information about the broad range of concrete applications is being incorporated into the CIM curriculum. We are indebted to the concrete associations for providing technical information, research findings, applications and certifications for our students.

The Concrete Industry Management Journal will begin publication next year! The journal will be a peer-reviewed publication and will feature articles by academic and industry professionals which will enhance the level of knowledge about the managerial and technical aspects of the concrete industry. The journal will attract not only CIM faculty, but scholars and researchers outside of our program. This will broaden the marketing exposure of and interest in the CIM program.

WE ARE PLEASED TO REPORT THAT DURING fiscal year 2015-16, the National Steering Committee (NSC) recorded record revenues from industry association and foundation support, as well as the auction held at World of Concrete totaling \$968,975. With the addition of \$4,678 in interest income, total revenue was \$973,653.

Expenses for the year totaled \$728,673. The two largest expense categories were support of our four university programs amounting to \$400,000 and scholarship grants for new students entering the program of \$122,000.

The net of revenues and expenses resulted in an increase in reserves of \$244,950. This surplus was primarily due to the record auction revenues and the delay of some planned expenditures. As of fiscal year ending June 30, 2016, the NSC has unaudited assets of \$1,870,957.

This is the strongest financial position the NSC has ever held, and it helps to not only guarantee that the NSC will be financially able to sustain our existing programs, but increase our efforts to address the concrete industry's growing demand for CIM graduates.

One of the ways the NSC is addressing the ever-increasing concrete industry demand for graduates is through a scholarship program designed to assist new

students entering the program at all four CIM universities. It is a requirement that each university local industry Patrons' group match the scholarship dollars contributed by the NSC to the program. This scholarship program, initially launched in 2013-14, has proven to successfully increase new CIM student enrollment. Because of the success of the scholarship program and the NSC increase in reserves, we intend to continue the program with significantly increased dollars in fiscal year 2016-17.

The NSC Board of Directors has approved a budget including this scholarship increase, as well as several other program enhancements for promotion and education. With the success of the auction, we will be able to maintain our reserve and working capital target of \$1.5 million even with these increases.

CIM/NSC is financially positioned for continued growth within our existing programs and poised for future expansion in order to keep up with the demand for graduates. In order for this to succeed, we will depend on the continued growth and success of the CIM auction, the continued support of our concrete industry associations and foundations and the ongoing commitment of local concrete industry Patron groups.

The following highlights budget vs. actual financial results for Fiscal Year 2015-16 and projected June 30, 2016 equity balance:

		BUDGET	ACTUAL
Revenues		\$842,450	\$973,653
Expenses		\$785,683	\$728,673
Increase in Reserves		\$56,767	\$244,950
Audited Equity	6/30/15		\$1,636,228
Projected Equity	6/30/16		\$1,870,958



**NICOLE MAHER**  
**Chairman**  
*Finance Committee*



**ALAN NEDZA**

**Chairman**  
*Long-Range  
Planning  
Committee*

THE VISION OF THE CONCRETE INDUSTRY Management (CIM) program is to be a resource to provide the concrete industry with professional leaders for tomorrow. The mission is to develop, support, promote and sustain a network of higher learning institutions with programs that produce future professional leaders with degrees in concrete industry management. We represent a national, broad-based industry coalition in partnership with CIM institutions and local industry patron groups, dedicated to a collaborative process to accomplish this goal.

The main focus of this committee are the six strategic goals listed below.

1. Determine the emerging market needs for CIM graduates regionally, nationally and internationally and ensure the network of institutions is sufficient to meet those needs.
2. Preserve and protect the value of the CIM brand.
3. Determine the scope and outreach of the CIM program.
4. Promote the use of the CIM university network to conduct coordinated research that benefits the concrete industry.
5. Determine the appropriate allocation of National Steering Committee (NSC) funds in support of the CIM program.
6. Determine the long-term goal and leadership succession of the NSC.

In support of some of these goals the long-range planning committee has conducted a survey of concrete industry organizations for the purpose of estimating prospective annual demand for program graduates both regionally and by industry segment, to facilitate the ability of the NSC to manage the program's future growth and development.

### **Major findings from the study**

- Familiarity of the respondents with the CIM program was mixed so the committee developed

outreach programs through associations. CIM university exposure needs to be intensified to increase awareness of the CIM program.

- New graduates are anticipated to account for about 20 percent of all full-time hires over the next few years.
- From a regional perspective, hiring of new graduates will continue to be the heaviest in the South Atlantic followed by the West South Central, Pacific, East North Central, and East South Central regions.
- More than half of the companies interviewed offer college internships (52 percent), which is a positive development and one that we will continue to foster and encourage.
- Respondents estimated that just over a third of the new graduates they hire over the next year – 36 percent - will be recruited from colleges and universities which is a good sign for our program.
- Of those that had not hired CIM graduates, the primary reason was lack of familiarity with the program which is being addressed with our communication strategy.
- The strengths of the CIM graduates were their general understanding of the concrete industry and, in particular, their knowledge of ready mixed concrete operations.
- More than half of respondents (56 percent) indicated that they are likely to hire a CIM graduate within the next five years.
- In regard to job functions that CIM grads are most likely to be placed into, technical services and operations were the most likely, followed by project management. Sales and production management functions were slightly less likely as initial entry points.

The strategic goals listed above and the findings of the industry survey will be utilized to prioritize the activities of the committee and appropriate adjustments to the long-range plan will be made in order to continue to move the program forward.



PROMOTING THE CIM PROGRAM, the Executive MBA Program and the CIM auction was the key focus of the Marketing Committee for the 2015-2016 school year. Our efforts to increase awareness of the CIM program were directed at helping educate prospective students and influencers about educational and career opportunities in the concrete industry.

We have developed the CIM marketing program to reach a variety of targets, including the construction industry, the concrete industry, the general media, the academic community and potential students and student influencers. Our approach includes:

- Advertising: In January 2016, the CIM NSC sponsored an advertising and editorial placement in Engineering News Record. This effort helped us gain valuable exposure to the entire concrete industry just prior to the World of Concrete. We developed new print and web ads to help promote the CIM program, the Executive MBA program and the CIM auction.
- Association and Patrons' Group Support: CIM's association and Patrons' groups are tremendous partners for our efforts. We have helped develop materials and information for our associations and Patrons' Groups to share our messages.
- Auction Support: The 2016 CIM auction was a huge success. We took an aggressive approach to promoting the auction and highlighting several unique items, such as the Vintage Ready Mix Truck. The Marketing Committee remains an instrumental part of the annual CIM auction. We manage activities including an auction item solicitation tool, press releases, promotional collateral, advertisements and web marketing.
- Collateral & Promotional Materials: The committee produced promotional materials to support the CIM brand, including brochures, graphics and other materials. The committee also produces the Annual Report and Executive Summary, developed to inform, educate and update stakeholders on national and institutional activities.
- Digital Media: ConcreteDegree.com is a valuable resource for the program. The website is built on a content management system and has a responsive design to present a consistent experience on different browsers and mobile devices. Our digital media efforts have focused on content marketing and enhanced social media efforts.
- Events & Trade Shows: CIM had exposure at several events in 2015-2016, including the World of Concrete, NRMCA's annual meeting, Concrete-Works, the ACI's convention, ICRI's annual meeting and several others, .
- Public Relations: Public relations is an important part of our marketing approach and focused on promoting CIM programs to the industry, promoting CIM programs to students and influencers, and promoting the Executive MBA Program. The committee also continues to publish the CIM e-news six times per year, reaching more than 3,000 people with each edition. We also helped promote the 20th Anniversary of the CIM program at MTSU. We also work with the concrete industry trade associations to disseminate our message. For the last several years, CIM has been working with Constructive Communication, Inc. on a proactive public relations campaign that has resulted in the distribution of 9 press releases and placement of more than 50 articles in industry publications such as Engineering News Record, Concrete Construction, Concrete Producer, Concrete Technology Today, Concrete Repair Bulletin and Better Roads. Online coverage included TheConcreteProducer.com, ConcreteConstruction.net, ENR.com, ConcreteProducts.com, ForConstructionPros.com, AggregateResearch.com, Equipment Journal Online, and many others.
- Video Production: We developed and produced several videos for the 2016 CIM auction that helped promote our "Call for Donations," specific items that were donated and the auction itself.



**BRIAN GALLAGHER**  
**Chairman**  
Marketing Committee





**MICHAEL  
PHILIPPS**

**Chairman**  
*Auction Committee*

THE 2016 CONCRETE INDUSTRY Management (CIM) Auction was a tremendous success. The annual auction was held in conjunction with the World of Concrete (WOC) in Las Vegas on February 3, 2016. Gross proceeds from the event set a record and were in excess of \$925,000. The CIM auction Committee consists of over 40 industry professionals that worked together to solicit items and promote the event. CIM program universities are the primary beneficiaries, as the CIM auction has increasingly become the major source of NSC funding.

Because of its strong nucleus of members, the committee has become increasingly effective and has developed a game plan to assure a successful auction. Once the 2016 auction was completed, the committee was hard at work on the 2017 event. Hanley Wood, The World of Concrete, Informa and Ritchie Bros. Auctioneers have been tremendous partners for CIM. Without their commitment and support, the auction would not be possible. The World of Concrete management ensures that the NSC has the full support of the entire WOC staff. All of the promotion for WOC, both leading up to the event and at the convention center, highlight and advertise the auction. Ritchie Bros. has provided the NSC with their expertise in both promoting and being on site conducting the auction. Through Ritchie Bros., we are able to include online participation for people who are not able to attend the auction. We are pleased to note that a significant percentage of the live auction proceeds come from online bidders, a percentage that continues to increase each year.

There were two signature items at the 2016 auction. For many years, Mack and McNeilus Co. have collaborated to donate a ready-mixed concrete truck. This year was no exception, as the final item in the auction was a Mack Granite® Axle Forward concrete truck chassis mounted with a McNeilus 11-cubic-yard Bridgmaster® concrete transit mixer, donated by Mack Trucks, Inc. and McNeilus Co., a Division of

Oshkosh Truck. The winning bidder was Rockingham Redi-Mix of Harrisonburg, VA. We also auctioned a vintage 1951 ready-mixed mixer that was donated by Allied Concrete in Houston, a Summit Materials company.

As in the past, NSC partnered with GiveSmart — a user-friendly bidding technology service providing customized auction and event solutions primarily for non-profit organizations. With GiveSmart, participants were able to register for the auction, sneak preview silent and live auction items, make a donation and bid on their favorite silent auction items immediately from mobile devices. Once again this year, participants who were not able to attend the live auction were able to bid online during the event.

We are also fortunate to increase the number of concrete industry companies that recognize the importance of the event to CIM and make donations. Many of the leading suppliers to the concrete industry are repeat donors. The ever-expanding number of auction items made available to the committee for either the live or silent auctions included such high profile items as a ready-mix truck donated by Mack Trucks, a truck-mounted mixer donated by McNeilus and a laser screed machine donated by Somero Enterprises. Other high profile donated items include cement and fly ash, and equipment used in the production of concrete or in concrete construction. This ensures that the auction contains items that are of interest to the thousands of attendees at WOC. In addition, there were many exciting sports travel packages including trips to college and NFL football games, MLB baseball games, NBA basketball games, NHL hockey games, the Rose Bowl, The Masters, The Kentucky Derby, golf at Sawgrass and the Indy 500. Further, there are a number of exciting vacation trips to Orlando, Cleveland, New Orleans, New York City, San Francisco, Chicago, Dallas, Nashville and San Antonio as well as luxury items like flat screen televisions, laptop and tablet computers, jewelry and more.

RECRUITING EFFORTS for the fourth cohort of the concrete industry management executive MBA degree program, which will begin in August 2017, is in full swing. A kick-off meeting at MTSU is planned which will allow all students and faculty to get to know each other at the start of the program. The goal is to have eight candidates at the beginning of the fourth cohort.

The current cohort, which began in January 2016, has six students in the program. They visited MTSU on April 28 – 29 for their first visit and a return visit on November 17 – 18. A graduation ceremony is planned for May 2017.

This customized MBA is a rigorous, highly interactive degree program that thrives on diversity of cultures with mutual benefit to participants and sponsoring companies. Its major themes are globalization, leadership, strategy, and execution. The program takes participants beyond basics to a true understanding of forces that shape the concrete and construction industry. The current participants are able to immediately impact their businesses by implementing strategies and insights gained from the completed courses resulting in immediate ROI for the sponsoring companies. Throughout the program, the participants are taught the skills needed for leadership and team building and motivational skills to create synergy and energize their teams with

the aim of achieving excellence throughout the organization. They are taught to look at their organizations from a holistic point of view and understand the cause and effect relationship between decisions. With the growing need for middle management talent in the industry as the economic recovery gets underway, the CIM Executive MBA program is well placed to continue to provide those highly qualified managers the industry will need.

The 15-month-long program is administered in 7-week blocks. The format includes distance learning, webinars and on-campus visits to MTSU or other designated industry events. This distinctive program is designed to develop long term relationships amongst participants, while fostering a collaborative learning environment and allowing national and international recruitment with limited campus visits that are intensive and focused.

Industry professionals participating in the CIM MBA program are required to have a minimum of three years experience in the industry. GMAT or GRE is not required due to this experience requirement. Academically, all participants will have at least an undergraduate degree from an accredited institution of higher education. While participants must have at least a bachelor's degree, that degree does not have to be in business.

The total cost of the CIM Executive MBA program is \$39,000 per participant.



**AYAZ AHMED**  
*Associate Professor*  
CIM MBA Program



**DR. HEATHER BROWN**  
*School of Concrete and Construction Management*  
Director/Professor  
MTSU CIM

## PROGRAM MISSION



### LEARN

In addition to highly-immersive sessions on campus, cohorts will study construction, management, finance, accounting and statistics.

### LEAD

Cohorts will enhance their leadership skills through situational- and case-based learning, preparing them to effectively lead an organization

### BUILD

The program provides the most advanced techniques in logistics, process improvement, strategy, and sustainable construction and development.

### INSPIRE

Surrounded by other hardworking, like-minded students, cohorts are encouraged to become the catalyst for positive change in their field.



THE FIRST-OF-ITS-KIND COLLEGE degree program for concrete construction in the United States celebrated its 20th anniversary this year. First introduced in 1996 with two students, the undergraduate program now includes more than 350 students at four program universities including Middle Tennessee State University (MTSU); California State University, Chico; Texas State University in San Marco; and New Jersey Institute of Technology in Newark. To date, more than 1,000 students have graduated from CIM programs.

“Over the last 20 years, CIM has remained strong throughout the many changes in the economic climate,” said Executive Director of the CIM National Steering Committee Eugene Martineau. “I attribute our success to two things – the dedication of the National Steering Committee (NSC) and the local Patron groups. The NSC exemplifies how firmly entrenched the concrete industry is in CIM. The leadership of the board is comprised of ready-mix suppliers, admixture suppliers, concrete contractors, engineering firms, research organizations, and trade associations. Their mission is to develop, support, promote and sustain a network of higher learning educational institutions with programs that produce graduates with degrees in CIM. The local Patron groups are the backbone of the CIM program. These groups provide guest lecturers, sponsor field trips, hire students and graduates, provide internships and financial support that matches or exceeds that of the NSC.

**FOUR  
PROGRAM  
UNIVERSITIES**

FIRST CIM PROGRAM  
BEGAN AT MTSU in  
**1996**

MORE THAN  
**1,000**  
GRADUATES OF  
THE PROGRAM  
since INCEPTION

EXECUTIVE  
MBA in CIM  
PROGRAM  
BEGAN in  
OCTOBER  
**2012**

PARTNERSHIPS between NATIONAL  
CONCRETE INDUSTRY,  
ACADEMIA and LOCAL PATRONS

NATIONAL  
STEERING  
COMMITTEE  
that PROVIDES  
CURRICULUM  
CONSISTENCY, PROGRAM  
OVERSIGHT, GOVERNANCE,  
FUNDING and PROMOTION

**10** ANNUAL AUCTIONS at  
WORLD OF CONCRETE

STRONG PATRONS' GROUPS that PROVIDE RESOURCES,  
SUPPORT, GUIDANCE, FUNDING, PROMOTION,  
RECRUITMENT and GUEST LECTURES



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Today, CSU, Chico is a comprehensive university serving not only the local region, but also the state, the nation, and the world, through instruction, research, and public service.



**FERAIDON ATAIE**  
**CSUC CIM**  
**Program Director**

## ENROLLMENT DATA

### 2015-2016 Enrollment

Majors	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	56	48	50	57	57	65

### Graduates:

Fall 2015: 2  
Spring 2016: 5  
Total graduates to date: 104

## PROGRAM STATUS

The Concrete Industry Management (CIM) program at Chico State that had been functioning as a pilot program has been approved as a permanent regular program effective Fall 2015.

## FACULTY PROFESSIONAL ACTIVITIES

### Research Projects

- **Feraidon Ataie** was awarded a grant from California Rice Research Board and CSU-Agricultural Research Institute for conducting research on utilization of rice straw fibers in concrete (2016-2017).



- Our Student Ambassadors, along with program administrator **Amanda Muller**, have done a fantastic job in recruiting students to the program. We have also had other CIM students and Patrons that have helped us with our recruitment efforts and activities.

## CURRICULUM

Two new courses were developed for this academic year:

- Concrete Projects Estimating
- Bidding and Safety Practices and Management.

## STUDENT SCHOLARSHIPS AND AWARDS

- **Claudia Martinez**, junior, has been awarded the CSU Trustees' Award for Outstanding Achievement. She was the only Chico State student and one of the 23 CSU system-wide students to receive this award. Claudia has also received the Dean's Excellence Scholarship from the College of Engineering, Computer Science, and Construction Management. In addition, she was awarded two other scholarships this year, one from Women in Mining – CA Chapter and one from ICRI.
- **Joanne O'Hara**, senior, received the Chico State Outstanding Student Service Award for 2015-2016 for her excellent record of on-campus and community service. She was one of four students campus-wide to be selected for the award.

## PROGRAM ACTIVITIES

### CIM Program Community Involvement

CIM students participated in several community projects throughout the 2015-2016 academic year, working with Habitat for Humanity, Beale Air Force Base in Marysville and the largest of the projects, the Sierra View Elementary Courtyard renovation.

### Student and Faculty Conference and Event Attendance

- **World of Concrete 2016** (Las Vegas, NV): Twelve students, two faculty members, college dean, four staff members (Spring 2016)
- **ASCC Annual Convention** (Dallas, TX): Six students, one faculty (Fall 2015)
- **NRMCA ConcreteWorks** (San Antonio, TX): Four students, one faculty (Fall 2015)
- **The Precast Show** (Nashville, TN): Eight students, one faculty (Spring 2016)

## PROGRAM SUPPORT

### Chico State CIM Patrons

- The Chico State CIM Patrons' Group celebrates its 11th year since its founding as a non-profit 401(c)(3) educational foundation.
- The organization now contains more than 40 active members that provide field trips, guest lectures, recruitment activities, internship opportunities and scholarships for CIM students.
- The Patrons' Group met in September 2015 and April 2016.

### Additional Program Notes

- The CIM program was featured in three news articles in INSIDE Chico State. One of the articles, "A Perfect Mix," published in October 2015, highlighted the uniqueness and the success of the CIM program at Chico State, tremendous opportunities for students, and 10 years of successful academia-industry relationship.
- "Is Rice Nice for Concrete?" was the second article published in INSIDE Chico State that highlighted the program's research accomplishments. Two CIM program students, Joanne and Henry, were selected as top-ten student researchers campus-wide. They have been helping CIM director Feraidon Ataie on his research on utilization of rice straw fibers in concrete.
- The third article highlighted our students' hard work and dedication to community service for their project at Sierra View Elementary school in Chico, CA.

## FINANCIAL INFORMATION

### Chico State Income/Expenses 2015-2016

INCOME	Patrons	\$85,050
	Patron Scholarships	
	National Steering Committee	\$125,000
	University	\$210,000
	<b>Total Income</b>	<b>\$420,000</b>

EXPENSES	Salaries	\$205,000
	Operating/Equipment	\$35,000
	Travel	\$80,000
	Patron Scholarships	\$70,000
	<b>Total Expenses</b>	<b>\$390,000</b>



# MIDDLE TENNESSEE

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Located in Murfreesboro, MTSU is the oldest and largest institution in the Tennessee Board of Regents system. With an enrollment of about 23,000 students, it is the No. 1 producer of graduates for the Greater Nashville economy.



**DR. HEATHER  
BROWN**  
MTSU CIM  
*Department Chair &  
Professor*

## ENROLLMENT AND GRADUATES

### Program Enrollment:

	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016
Enrollment Fall	306	259	155	187	149	165
Enrollment Spring	303	226	178	190	143	151
Enrollment MBA			8	6	0	0

### Number of Graduates: 834 graduates to date

Fall 2015: 19 graduates  
Spring 2016: 17 graduates  
Summer 2016: 2 graduates

## PROGRAM STATUS

The Department of Concrete Industry Management merged with the Construction Management program to create a new School of Concrete and Construction Management effective July 1, 2016. Additionally, the CIM Study Abroad course was developed and implemented in summer 2016. The MTSU CIM program was named an ACI Excellent University in 2015-2016.

## FACULTY PROFESSIONAL ACTIVITIES

### Research and Proposals

- Continued work on TDOT grant investigating the development of low permeability bridge deck concrete through the use of supplemental cementitious materials (silica fume, metakaolin and slag).
- Continued work on TDOT grant investigating precast corrosion
- Continued work on TVA URS grant investigating beneficial reuse of fly ash
- Continued research on fibrillated fiber effects on concrete with the FiberMesh company.
- Continued research with ASCC on concrete wall surface imperfections

### Professional Affiliations/Services

- **Dr. Marcus Knight** is a member of the Masonry Institute of Tennessee.
- **Dr. Heather J. Brown** sits on the Emerging Leaders Committee for the ASCC and serves as a fellow and committee member for the ACI.
- **Mr. Ayaz Ahmed** is a member of the NPCA.

### Publications

- **Zhifu Yang, Heather Brown, Jon Huddleston** and Wayne Seger, "Performance Evaluation of Rapid-Set Prepackaged Cementitious Material for Rehabilitation of Surface Distress of Transportation Concrete Structure," *PCI Journal*, March-April, 2016.
- **Zhifu Yang, Heather Brown, Jon Huddleston** and Wayne Seger, "Restrained Shrinkage Cracking and Dry Shrinkage of Rapid-Set Prepackaged Cementitious Materials," *Journal of Materials in Civil Engineering*, 2016, 28(6), 10pp.
- Ryan Otter, Brian Bachner, Spring Nolin, Jessie Weatherly, **Heather Brown** and John DiVincenzo, "Fly Ash Amended Pervious Concrete: A Laboratory Study on Removal Potential for Inorganic Contaminants," *International Journal of Environmental Engineering*
- **Heather Brown** and Crabtree, J., "Does Cold Curing Water Cause Concrete Surfaces to Crack," *Concrete Construction Magazine*, 8/20/15

### Additionally, CIM faculty reviewed the following publications:

- *Journal of Materials in Civil Engineering*, "Monitoring of Concrete Shrinkage and Creep Using Fiber Bragg Grating Sensors," 10-12-2015
- *Journal of Materials in Civil Engineering*, "Mesoscopic damage model of concrete subjected to freeze-thaw cycles using mercury intrusion porosimetry and differential scanning calorimetry (MIP-DSC)," 02-18-2016

- *Journal of Materials in Civil Engineering*, "Time-dependent capacity and runoff of pervious block subjected to repeated rainfall simulation," 4/11/2016
- Reviewed one journal article related to Dry Stacked Masonry strength for the American Society of Civil Engineers (ASCE) *Journal of Materials in Civil Engineering*.
- *Frontiers of Structural and Civil Engineering*, "Evaluation of different surface treatments on pervious concrete"
- *Center for Environmentally Sustainable Transportation in Cold Climates (CESTiCC)*, "Evaluation of Deicer Impacts on Pervious Concrete Specimens"
- *Journal of Materials in Civil Engineering*, "Effects of Carbonation on the Quality of Outlet Water percolated through Enhanced Porosity Concrete"

### Workshops and Presentations

- **Mr. Huddleston** mentored **Katie Poss**, who was accepted to the Tennessee Experiential Learning Symposium in Knoxville, TN and presented a poster on CIM's recent study abroad trip to the Dominican Republic.
- **Dr. Brown** mentored **Roger Insyxiemay** to present a poster on CIM's recent study abroad trip to the Dominican Republic in the MTSU Scholars Week
- **Dr. Heather J. Brown** Presentations
  - Smryna Rotary Club Presentation, June 9, 2016
  - Tri State Concrete Convention CIM Presentation, June 4, 2016
  - CAT Presentation to Annual Sales Meeting, March 22, 2016
  - NPCA Precast Show – Mix Design Seminar, March 5, 2016
  - Nebraska Quality Concrete Conference, January 13-15, 2016
  - Cane Ridge Women in Concrete Presentation, November 5, 2015
  - Canada Cement Council Presentation, September 22, 2015

### Program Representation and Outreach

- **Nicole Green** conducted two workshops for Career and Technical Educators across the state of Tennessee at the CTE Conference on Concrete Industry Management as a major and career option; 12 CTE teachers attended two workshops. (7/8/15)
- CIM partnered with Construction Management and Interior Design departments on campus to host 17 high school kids at a week-long ACE Camp on MTSU's campus, exposing the students to construction, concrete and interior design. (7/12-7/18/15)
- Rutherford County College Night – CIM hosted a table with approximately 20 students stopping by for information. (8/31/15)
- **Dr. Brown** and **Nicole Green** traveled to East Tennessee to talk with community college students and staff at three two-year schools: Walters State Community College in Harriman (10 staff attended); Pellissippi State Community College in Knoxville



(conversations with 1 staff and 4 students); and Roane State Community College in Oak Ridge, TN (12 staff attended). (9/21-9/22/15)

- **Nicole Green** attended the Nashville True Blue Tour; attending a luncheon for local school counselors and hosting a table for prospective students (approximately 25 students and parents asked questions). (10/11/15)
- **Nicole Green** attended the Huntsville True Blue Tour; attending a luncheon for local school counselors and hosting a table for prospective students (approximately 15 students and parents asked questions; very good reception due to out of state perks). (11/4/15)
- CIM hosted the Blackman Collegiate Academy, 20 students in 2 sessions made concrete coasters and talked about concrete basics. (11/5/15)
- **Nicole Green** took part in the Career Fair at Daniel McKee alternative school: talked for 20 minutes to 5 groups of 5 students about opportunities in the industry. (1/21/16)
- CIM hosted the Blackman Collegiate Academy, 20 students, made concrete coasters, gave a lab tour, and talked about concrete basics. (1/28/16)
- Spoke about CIM and took questions from four classes at Centennial High School in Franklin, TN. Talked with approximately 100 students total. (2/22/16)
- CIM hosted the Blackman Collegiate Academy, 20 students, made concrete coasters, gave a lab tour, and talked about concrete basics. (4/7/16)
- CIM hosted a group of 20 high school students, talked about concrete basics, made coasters and watched lab groups mix test batches of concrete in CIM 3000. (4/8/16)
- Annual CIM Women's Luncheon, speaker from ACI Institute, invited 18 high school girls to attend from Cane Ridge and Central Magnet schools. (4/13/16)
- **Nicole Green** hosted a workshop and made concrete coasters with 25 counselors at Roane State Community College in Crossville, TN. (5/25/16)

## RECRUITMENT AND MARKETING ACTIVITIES

- 51 individual employers made 71 total visits to MTSU to recruit.
- 16 different companies hosted 17 socials.
- 32 companies held 41 interview sessions on campus.
- Approximately 634 interviews were held between companies and students on campus in 2015-2016.
- Seven part-time positions, 45 internships and 268 full-time jobs were emailed to the department in 2015-2016, totaling 320. Of the total, 94 (29.4 percent) were companies within the state of Tennessee, and 198 (61.9 percent) were in the southeast.
- A networking event took place on October 21, 2015, attended by 31 companies and 97 students.

## STUDENT SCHOLARSHIPS AND AWARDS

- Three students, **Roger Insyxiengmay**, **Hussaen Ismail** and **Peter Roldan** all were awarded funding through the Benjamin A. Gilman International Scholarship for study abroad travel.
- **Bobby Crass** received a Tennessee Concrete Association Scholarship.
- **Garrett Floyd** received a Southeast Portland Cement Association Scholarship.
- **Natalie Martin** received a Southeast Portland Cement Association Scholarship and a Homer Woods Davenport Scholarship.
- **Chris Joyner** received a William Avery Scholarship and a Lehigh Cement Scholarship.
- **Jacob Cope** received a William Avery Scholarship.
- **Rebecca Ingalls** and **Cranston Gentry** each received a Sika Scholarship.
- **Cole Johnson** received an FRCA Scholarship and a JW Red Victory Memorial Scholarship.
- **Hayden Bilyeu** received an FRCA Scholarship and a Jim Scott Memorial Scholarship.
- **Heath Holden** received an Earl Keese Scholarship.
- **Jacob Lannom** received an Elton Cook Scholarship and a Tennessee Concrete Association Scholarship.
- **Samuel Harris** received a Lehigh Cement Scholarship.
- **Jordan Fischer** received a BASF Scholarship.
- **Robert Bradley** and **Joshua Baker** each received a GRMCA Scholarship.
- **Peter Rolden** received a Concrete Supply Scholarship.
- **Derek Ausloos**, **Kristina Kortman**, **Storm Carpenter**, **Michael Wickizer**, **Matthew Burnham**, **Noah Hawkins**, **Chris Bailey**, **Ashley Lancaster** and **Andrew Symonds** received NSC Industry Scholarships.

**\$906,000 was requested in grants for 2015-2016; \$247,000 was received.**

- **Dr. Zhifu Yang**, TDOT Funding for Precast Corrosion on Bridge Deck Panels, \$84,000
- **Dr. Marcus Knight**, TDOT Funding for Supplementary Cementitious for Permeability, \$150,000
- **Dr. Heather J. Brown**, AECOM TVA URS Funding for Beneficial Reuse of Fly Ash, \$8,000
- **Dr. Heather J. Brown**, ASCC/ACI/RMC, ACI 347 Research Phase II, \$5,000

## PROGRAM ACTIVITIES

### Field Trips

- Study abroad trip to Bircham Newton, England, for students to participate in a construction project from conception and bid

- to completion and turnover to the client. This year, six students along with two faculty constructed a scaled-down version of the Brewery Warf footbridge located in Leeds England.
- Cemex Portland cement manufacturing facility in Knoxville, TN; 20 students and two faculty.
  - Tour/investigation of TDOT bridge construction projects; six students and two faculty.
  - Study Abroad Dominican Republic; nine students, two chaperones and one faculty. (May 2016)
  - Study Abroad Dubai, UAE; eight students and one faculty. (June-July 2016)

## CIM Program Community Involvement

- Fall 2015: Placed 9 yards for track and field sidewalk
- Spring 2016: Placed 15 yards for track and field maintenance area
- Spring 2016: Tested 4 concrete walls for surface voids
- Summer 2016: Tested 52 trucks of pervious concrete for research study conducted at Orgain Ready Mix
- Volunteering with Habitat for Humanity

## Student and Faculty Conference and Event Attendance

- **American Society for Concrete Contractors (ASCC)** Dallas, TX; 6 students and 1 chaperone
- **National Ready Mixed Concrete Association (NRMCA) ConcreteWorks Conference** in San Antonio, TX; 8 students and 1 faculty
- **National Ready Mixed Concrete Association (NRMCA) Annual Convention** in San Diego, CA; 4 students 1 faculty
- Working with the Portland Cement Association to create a student outreach and mentoring session at their annual conference. The first mentoring session with students took place in May 2016 at the **IEEE PCA annual conference** in Grapevine, TX; 4 students and 1 faculty
- Introduced students to Command Alkon Batching Software and Technology through the **Command Alkon Conference** in Las Vegas, NV in November 2015; 4 students and 1 faculty
- **World of Concrete** Las Vegas, NV; 20 students, 1 faculty, 2 staff
- **Precast Show**, Nashville, TN; 12 students, 2 faculty
- **ICRI Puerto Rico**; 3 students and 1 faculty

## Program Visitors and Presenters

The MTSU CIM program saw 28 speakers between August 2015 and May 2016. Below is a partial list of those that assisted:

- Garry Askew, Architect with Bauer Askew
- Guy Chaleunsinh | Fluor | Mining & Metals | PMC Engineering Manager
- Bob Grich, Gerdau Ameristeel

- Chris Davenport, Barnes Industrial Group
- David Parker, BASF
- Cameron Crews, Construction Materials Inc.
- Brandon Bivens, Lifestyle Communities
- Sara Andon, Turner Construction
- Mike Kusch, Forterra Precast
- Josh Stewart, Turner Construction
- Cody Eaton, CEMEX
- Will Phelps, Lithko Contracting
- Ojas Chowduri, TTU Ph.D. Student
- Hunter Wallace, ABC Fibers
- Tyler Woolman, Dayton Superior

**Additionally, the following notable programs were offered for students:**

- **Women in Concrete Luncheon**, guest speaker Ann Daughtery with ACI Foundation
- **Seminar on Professionalism in Concrete Industry**, Craig Cottongim

## PROGRAM SUPPORT

### MTSU CIM Patrons

There are currently 16 active members in the Patrons' Group. They provide classroom visits, mentors for students, a CIM homecoming event with students and alumni, a skeetshoot with students and alumni, student worker funds, scholarship, research assistance and educational support for the lab manager.

**The MTSU CIM Patrons met the following times in 2015 and 2016:**

- Annual CIM Skeet Shoot held at Big Springs – 10/1/15
- Alumni tailgate at homecoming with over 30 attending – 10/2/15
- Hosted the regular CIM Patron's Meeting this year but also added two work sessions on 9/15/15 and 12/15/15 to target growing the group and to develop new membership levels
- World of Concrete Alumni Reception in Las Vegas to celebrate 20 years of CIM, over 40 alumni in attendance – 2/3/16
- Annual CIM Golf Tournament and 20th anniversary reception afterwards at Mayday Brewery, over 50 alumni in attendance at both events – 4/27/16
- CIM Patrons Board Meeting on 10/1/2016 and 4/28/2016

### MTSU CIM Alumni Association

- **Day-Day Wells** (May 2015) – M.B.A. candidate in the U.K. was recently named Miss HighBury and will be competing for Miss London City 2016
- **Dr. Brown** went to Houston, TX to visit with area alumni. Five alumni hosted Dr. Brown at their place of employment for a tour and discussion on how to get more alumni to the area:

- **Brian Maxedon** and **Matthew Wilbanks** – Argos USA
- **Drew Brown** and **Thomas Salisbury** – Lattimore Materials
- **Darren Wilbanks** – Rinker Pipe and Precast

## Additional Program Notes

- **Nicole Green** was chosen by Dean Fisher as an employee who does great work behind the scenes and dinner with President McPhee.
- **Nicole Green** was nominated by **Dr. Heather Brown** for the 2016 College of Basic and Applied Sciences Dean's Staff Award for Exemplary Service.
- **Dr. Zhifu Yang**, **Dr. Marcus Knight** and **Sally Bradford** were honored in a ceremony for 10 years of service to the university.

## FINANCIAL INFORMATION

INCOME	Patrons	\$83,499.95
	Patron Scholarships	\$86,508.58
	National Steering Committee	\$100,000
	University	\$749,407
<b>Total Income</b>		<b>\$1,019,416</b>

EXPENSES	Salaries	\$681,058
	Operating	\$104,000
	Travel	\$58,000
	Patron Scholarships	\$75,508.58
	<b>Total Expenses</b>	<b>\$918,566</b>





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**DR. MOHAMED MAHGOUB**  
NJIT CIM  
Program Director

## ENROLLMENT DATA

### 2015-2016 Enrollment

2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
40	50	72	83	105	100

### Number of Graduates:

Fall 2015: 3  
Spring 2016: 10  
Summer 2016: 5  
Total graduates to date: 53

Students with internships in 2015-2016: 20  
Graduates with employment at time of graduation: 16  
Average starting salary of graduates: \$50,000

## STAFF/FACULTY COMMITTEE INVOLVEMENT

### Dr. Mohamed Mahgoub

- Committee Chair, American Concrete Institute (ACI) Committee 555 (Concrete with Recycled Materials) for a three-year term (March 2012 to March, 2018).

- Vice President, NJ ACI Chapter.
- Voting Member, American Concrete Institute (ACI) Committees: 130 “Concrete Sustainability;” 342 “Bridge Evaluation;” 343 “Bridge Design;” and 440 “Fiber Reinforcement Polymer.”
- Member, American Society of Civil Engineers, ASCE.
- Member, ASCE North Jersey Branch.
- Member, International Concrete Repair Institute, ICRI.
- Member, ICRI Metro NY Chapter.
- Member, Precast/Prestressed Concrete Institute, PCI.

## PATRON INVOLVEMENT

Patron involvement with the CIM program continues to be the driving force of our success. The unwavering support, sacrifice of time, and strong investment of our 20 members and head Jamie Gentoso cannot be thanked enough. A few examples of Patron support are listed below.

- The annual support from the Northeast Local Patrons. It included extra \$25,000 scholarship money offered this summer for the first time.
- The annual support from the Northeast Local Patrons. They always hold annual Benefit Fund Raising Dinner held in February. They have also matched the \$25,000 scholarship money offered by national Patrons.
- Scholarship programs available to CIM students include: Silvi Scholarship, Sika Scholarship, and CIM Northeast Patrons Endowed Scholarship.
- Offer CIM students internships, Co-Op’s, and full-time jobs.
- Provide CIM students with a golden opportunity to network and a chance to better understand the career potential. This happens during conferences, socials and organizational activities.
- Keep the students engaged, and encourage and guide them as they progress through their studies by being mentors.
- Provide support to undergraduate concrete research through supplies, donations and guidance.
- Approximately \$30,000 in scholarship funds were distributed thanks to the local Patrons.
- Allow plant tours, hold socials and offer guest lecturers and field visits.
- Host the bi-annual Northeast CIM Patron meetings, once in December 2015 and again in May 2016.

## ALUMNI INVOLVEMENT

NJIT hosted 2016 graduate dinner attended by 23 NJIT CIM graduates on July 21, 2016.

## AWARDS, SCHOLARSHIPS, GRANTS AND RECOGNITION

### 2016 Bob Weatheron Award

For the second year, the Bob Weatheron Award was presented at the 2016 World of Concrete to highlight the Concrete Industry Management’s success in developing young professionals. The award, and \$2,500 scholarship, was presented to two students with outstanding papers and presentations. The 2016 winner included Jerhard Evangelista, from New Jersey Institute of Technology.

### 2015 NSF I-Corps Grant

Donia Abdelmotaal, a senior dual major student in CIM and architecture was awarded a grant of \$500 from the NSF I-Corps to aid her in commercializing a design that will improve ambulance patient transport. The \$500 will be used for customer discovery interviews, including travel to meet with potential clients.

### 2016 ACI Graduate Scholarship

The American Concrete Institute (ACI) Foundation offers scholarships for eligible graduate students whose studies relate to concrete. We are pleased to note that 2015 NJIT CIM graduate Disan Katumba was the recipient of a 2016 ACI Graduate Scholarship.

### 2016 EPDAMI Concrete Beam Competition

Two teams from the NJIT ACI Student Chapter competed in the 31st Annual Student Beam Competition organized by the Eastern Pennsylvania and Delaware chapter of the American Concrete Institute (EPDAMI). The challenge of the competition was to design and construct a concrete beam reinforced with steel bars. The NJIT team won 1st place in the “highest ultimate load to weight ratio” category.

## UNDERGRADUATE RESEARCH

- Total grant dollars requested: \$200,000
- Total grant dollars received: \$175,000

## RESEARCH AND STUDENT PROJECTS

- Fine Content in Fine Aggregate (sand) (NJIT patent), NSF-I corps, (\$2,500), six months
- Concrete Voids Assessment, ACI Committee 347 Research (\$5,000), one year
- 90-Minute Rule of Ready Mixed Concrete, NJACI Chapter (\$22,000), one year
- Concrete Durability, NJIT Faculty Seed Fund (\$10,000), one year
- Structural Health Monitoring, Qatar National research (\$50,000), 3rd year

## PROGRAM RECOGNITION

- 2015 ACI Excellent University
- ACI Student Chapter's president and vice president were granted voting privileges at NJ ACI Chapter board meeting on November 19, 2016. This is the first ACI chapter with those privileges.

## INDUSTRY RELATIONS

### Student/Faculty Travel

- National Ready Mixed Concrete Association (NRMCA) ConcreteWorks Conference in San Antonio, TX - 3 students and 1 staff attended
- ACI Milwaukee, WI - 4 students and 1 faculty attended
- World of Concrete, Las Vegas, NV - 4 students, 1 faculty and 1 staff attended
- Precast Show, Nashville, TN - 3 students, 1 faculty and 1 staff attended
- ICRI Puerto Rico, 5 students and 1 staff attended

### Industry-Sponsored Guest Speakers

**We had 15 speakers between August 2015 – May 2016.  
Below is a partial list of those that assisted.**

- Sherif Girgis, Titan America
- Narguis Benyamin, State Line Consultation Co. Inc.
- Michael Ciallella, Titan America
- Ricardo Arocha, Weldon Materials
- Jamie Gentoso, Sika
- Zach Rich, Silvi Group
- Doug O'Neill, Senior Director of NRMCA
- Joe Tedesco, Euclid Chemical
- Jim White, Bedrock Concrete Corporation
- Maurice Bay, Concrete 3D Printing
- Tom Ament, Buzzi Unicem USA
- Keith Stewart, Vector
- Mark Howell, Pullman
- Dan Tyler, Pullman
- Ken Justice, NRMCA

## PUBLICATIONS AND PRESENTATIONS

- Nita, G., Mahgoub, M., Sharyatpanahi, S., Cretu, N., and Elfouly, T. (2015). Higher Order Statistical Frequency Domain Decomposition for Operational Modal Analysis. Seventh International Conference on Structural Health Monitoring of Intelligent Infrastructure. July, 1-3. Torino, Italy.
- Mahgoub, M., and Salama A. Chapter 4: Basis of Code Criteria for Transverse Live Load Distribution. Chapter of ACI Technical Report. Flexural Live Load Distribution Methods for Evaluating Existing Bridges. ACI 342R-16. American Concrete Institute, ACI, Committee 342: Evaluation of Concrete Bridges and

Concrete Bridge Elements. March, 2016

- Mahgoub, M. (2015). Seismic and Structural Properties of Recycled Aggregate Concrete. Strategic Development Council (SDC) of American Concrete Institute (ACI), St. Louis, MO.
- Mahgoub, M. (2015). Integrated Multi-sensor Monitoring Systems for Sustainable Concrete-based Infrastructure Assets. National Ready Mixed Concrete Association (NRMCA) Sustainability Conference. Miami, FL.
- Mahgoub, M. (2015). Hybrid OR\_MS and GIS to Optimize Ready-mix Concrete Deliveries. National Ready Mixed Concrete Association (NRMCA) Sustainability Conference. Miami, FL.
- Mahgoub, M. (2015). Using Wireless Sensor Networks to Monitor Concrete Bridges. Portland Cement Association (PCA) Professors Workshop. Skokie, IL.
- Mahgoub, M. (2015). Concrete Industry Management and Sustainability. New Jersey Tech Council (NJTECH) Summer Intern and Research Program. Edison, NJ.
- Mahgoub, M. (2015). Health Monitoring Using Wireless Sensor Networks, Finite Element Analyses. Concordia University, Montreal, QC, Canada.

## REVIEWED PUBLICATIONS

### (reviewed by Dr. Mohamed Mahgoub)

- Engineering Structures – 7/13/2015
- Construction & Building Materials – 8/5/2015
- Construction & Building Materials 8/20/2015
- Fibers – 12/31/2015
- Sensors – 12/31/2015
- Sensors – 1/27/2016
- Journal of Materials in Civil Engineering – 3/9/2016
- Construction & Building Materials - 3/13/2016
- Construction & Building Materials – 5/10/2016
- Book proposal – Recycled concrete – 5/14/2016
- Proposal – Sun Grant Western Regional Center – 5/15/2016
- ASTM Advances in Civil Engineering Materials – 6/16/2016
- Cement and Concrete Composites – 7/17/2016
- Construction & Building Materials – 8/14/2016
- Construction & Building Materials – 8/14/2016
- Emerging Materials Research Journal – 8/17/2016
- Construction & Building Materials – 8/22/2016

## CURRICULUM/SPECIAL PROJECTS

- Fall 2015: Students tested 50 yards of concrete at Silvi Ready Mix plant - placed nine yards for track and field sidewalk.
- Spring 2016: Four students tested concrete wall for surface voids.
- Spring 2016: Students from four CIM program universities traveled to the National Construction College in Bircham Newton, England to participate in Constructionarium. During

their week, two students from California State, Chico, two students from NJIT, five students from Texas State and six students from Middle Tennessee State University constructed a scaled down replica of the Brewery Wharf Footbridge. Students from NJIT and MTSU were the first CIM program universities to participate in Constructionarium during the summer of 2014.

- Summer 2016: Six students performed laser scanning of concrete and steel bridges.
- Summer 2016: CIM hosted nine exchange students from Brazil for 11 weeks.

## JOB POSTINGS

**235 total positions were emailed to the department in 2015-2016**

- 200 full-time openings | five part-time | 30 internships
- 20 employers made five total visits to NJIT to recruit
- 5 socials were hosted by five different companies
- 20 employers made five total visits to NJIT to interview students
- Total of 30 students were interviewed

## NETWORKING AND OUTREACH

**During the 2015-2016 academic year, five socials were hosted by five different companies and attended by 100 students. These socials included:**

- BASF - April 2015
- Vector - October 2015
- High Company, LLC - December 2015
- Silvie - March 2016
- Questmark Flooring - April 2016



## FINANCIAL INFORMATION

INCOME	National Patrons	\$100,000
	National Patrons (scholarships)	\$25,000
	Local Patrons	\$40,000
	Local Patrons (scholarships, match)	\$25,000
<b>Total Income</b>		<b>\$190,000</b>

EXPENSES	Travel by program director, faculty, staff, students	\$30,500
	Guest speakers, field visits, seminars, workshops, attending local events	\$3,250
	Undergraduate research	\$20,000
	Concrete laboratory	\$10,000
	Recruitment, CIM promotion and marketing, fundraising	\$10,000
	Socials (6 per year)	\$8,000
	Student competitions (4 per year)	\$11,500
	Supplies (copying, printing, stationary, etc.)	\$5,000
	ACI and ICRI student chapters	\$5,000
	Local Patrons meeting (twice per year) and NSC meeting	\$25,000
	Salaries	\$10,000
	Scholarships (waiting for final signatures)	\$45,000
	<b>Total Expenses</b>	

## RECRUITING EVENTS

- Anlee Orama and CIM Students introduced CIM program to 52 New Jersey high school students.
- NJIT hosted approximately 600 students in December, 2015.
- Anlee Orama introduced CIM program to 500 students at Educational Opportunity Program at NJIT.
- Student Ambassador Program is moving forward: students visited high schools and community colleges introducing CIM program to students.
- Anlee Orama and CIM students introduced CIM program to high school students at NJIT Open House and Newark College of Engineering Career Day twice a semester.



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**DR. JOHN SCHEMMEL**  
*Texas State*  
**Program Director**

**ENROLLMENT DATA**

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
<b>CIM Program</b>	42	55	50	48	42	52

**Number of Graduates**

Fall 2015: 5  
Spring 2016: 3  
Total graduates to date: 18

**PROGRAM STATUS**

- **Dr. Yoo Jae Kim** earned tenure and promotion to associate professor in Fall 2015.
- **Dr. Federico “Fred” Aguayo** will be joining the CIM faculty at



Texas State starting in Fall 2016. Dr. Aguayo holds a B.S. (May 2011), M.S. (December 2012), and Ph.D. (May 2016) in Civil Engineering each from the University of Texas at Austin. His dissertation focused on an accelerated test method, mechanisms and mitigation techniques related to sulfate attack. While at UT Austin, Dr. Aguayo was also involved in research related to chemical admixtures and precast concrete for the Texas Department of Transportation, sulfate attack for the Portland Cement Association, as well as durability and carbonation of concrete for Lafarge Inc. Dr. Aguayo is a member of the American Concrete Institute, ASTM International, American Society of Civil Engineers, and the Society of Professional Hispanic Engineers. He is an Engineer-In-Training (EIT) in Texas. Dr. Aguayo is originally from Odessa, Texas.

- **Dr. John Schemmel** was elected to serve a three-year term as secretary for ASTM C09 Concrete and Concrete Aggregates. In addition, Dr. Schemmel authored two new procedural guidelines for ASTM C09, one for the Sanford E. Thompson best paper award and the other for delivering symposiums and workshops.
- After serving two years as the director of the CIM program at Texas State University, **Dr. Schemmel** has been named the first Ingram Endowed Chair for Civil and Environmental Engineering at Texas State. In this position, Dr. Schemmel will be responsible to establishing a new civil and environmental engineering degree program, set to commence in Fall 2019. Efforts are well underway to conduct a national search for the next full-time director at Texas State.

## FACULTY PROFESSIONAL ACTIVITIES

### Research

- Kim, Y., (Co-PI), “REENERGIZE: Attraction, Recruitment and Retention of Students in STEM Programs through Renewable Energy Research and Education Partnership with Five Minority-Serving Institutions,” U.S. Department of Education, MSEIP Program, \$613,000, September 2014 - August 2017.
- Hu, J. (PI) and Kim, Y. (Co-PI), “Feasibility Study of Using Micro- and Nano- Clay as Additives in Concrete”, Texas State University Research Enhance Program (REP), \$8,160, January 2015 - December 2015.
- Lee, S. (PI), Humphries, E. (Co-PI), Hu, J. (Co-PI), and Kim, Y. (Co-PI), “Improved Crack Sealant Application Methods”, Texas Department of Transportation (TxDOT) (RTI 0-6832), \$229,640, September 2014 - August 2017.
- Torres, A. (PI), “Optimizing The Effect of Foundry Waste on the Performance of Concrete,” Concrete Industry Management (CIM) Patrons, \$6,000, May 1, 2015 - April 30, 2016.
- Torres, A. (PI), “Assessing Surface Void Ratio of In-Place Concrete Using Comparative Test Measures” American Society of Concrete Contractors, Education, Research, and Development

Foundation, St. Louis, MO, \$5,000, March 2016-March 2017.

- Torres, A. (PI), “The Impact of Fibers on the Compressive Strength of Conventional Concrete” Fountain People, San Marcos, TX, \$1,500, November 2015 - November 2016.
- Ge, Z. (PI) and Hu, J. (Co-PI), “Rheology and Shrinkage Study of SCC with Recycled Fine Aggregate as Internal Curing Agent”, National Science Foundation of China, \$133,546, January 2015 - December 2018.

### Proposals

- Lee, S., Hu, J., and Kim, Y., “Audible Lane Departure Warning for Seal Coat Surfaces,” TxDOT, \$335,646, September 2015 - August 2018.
- Kim, Y. (Co-PI) “Comparative Analysis of Tack Coat, Underseal Membrane, and Underseal Technologies”, Amount: \$481,140, Texas Department of Transportation (TxDOT), January 2016 - August 2020.
- Kim, Y. (Senior Personnel), “Improving Undergraduate STEM Education (IUSE)”, National Science Foundation (NSF), Amount: \$400,000, September 2016 - August 2018.
- Texas Tech, Smart Manufacturing Advanced Research, Technology & Innovation Institute (Smartii), DOE, 5yr, \$75M. If awarded, Texas State will serve as the cement industry research coordinator. Texas State would receive approximately \$1.1M over five years. If funded, Dr. Schemmel will serve as the Texas State PI.

### Professional Affiliations/Services

**Dr. Yoo Jae Kim** is a member of the Precast/Prestressed Concrete Institute (PCI), where he serves on the Seismic Design Committee and the Industry Design Handbook Committee. He is also a member of the TxDOT Research Management Committee Technical Advisory Panel – RMC 5 Structures and Hydraulics, as well as the American Concrete Institute (ACI).

**Dr. Anthony Torres** is a member of the ACI and the American Society of Civil Engineers (ASCE).

**Dr. Federico “Fred” Aguayo** is a member of the ACI, serving on the following committees:

- 201 Durability of Concrete
- 236 Material Science of Concrete
- 364 Rehabilitation of Concrete Structures
- 364-0A Editorial Subcommittee

Additionally, Dr. Aguayo is a member of the ASCE, the American Society for Testing and Materials International (ASTM International) and the Society of Hispanic Professional Engineers (SHPE), and also serves as Technical Manuscript Reviewer for Cement and Concrete Composites.

**Dr. John Schemmel** is heavily involved in the ACI, where he was a fellow in 2000 and obtained his certification award in 2011. He serves on the SOC Scholarship Council, is a C610 Concrete Field Testing Technician, and chairs the C601-G SCC Certification Program Development and S805 Colligate Concrete Council. Dr. Schemmel is also a member of ASTM International, where he serves as the secretary for C09 Concrete and Aggregates and C09.90 Executive Sub-Committee; as the chair for C09.47 Self Consolidating Concrete and C09.93 Symposia, Workshops and Research; and is a member of the following committees:

- C09.40 Ready-Mixed Concrete® 236 Material Science of Concrete
- C09.60 Testing Fresh Concrete
- C09.61 Strength Testing

In addition, Dr. Schemmel is a member of the ASCE, the American Society for Engineering Education (ASEE) and the Texas Concrete and Aggregate Association (TACA), serving on its Education Committee.

## Publications

- Torres, A. and Barr, R., “A quantitative characterization of micro-gravity and unit-gravity processed ZBLAN glass,” *Materials Characterization*, Volume 107, September 2015, 386-397, ISSN 1044-5803.
- Torres, A, Barr, R., “A Quantitative Characterization of Micro-Gravity and Unit-Gravity Processed ZBLAN Glass”, *Materials Characterization*, Volume 107, September 2015, Pages 386-397, ISSN 1044-5803.
- Torres, A., Hu, J., and Ramos, A., “The Effect of the Cementitious Paste Thickness on the Performance of Pervious Concrete,” *Construction and Building Materials*, Volume 95, October 2015, 850-859, ISSN 0950-0618.
- Torres, A. and Hu, J., “An Alternate Test Method for the Void Content of Pervious Concrete,” *Advances in Civil Engineering Materials*, Vol. 5, No. 1, 2016, pp. 24–45, doi:10.1520/ACEM20150022. ISSN 2165-3984.
- Torres, A. and Burkhart, A. (2016) Developing Sustainable High Strength Concrete Mixtures Using Local Materials and Recycled Concrete. *Materials Sciences and Applications*, 7, 128-137. <http://dx.doi.org/10.4236/msa.2016.72013>.
- Torres, A. Barr, R., (2016) “The Development of a Heated-Stage Optical Microscope for ZBLAN Microgravity Crystallization” *Microgravity and Science and Technology*, Volume 15 (64), Pages 1-14, DOI: 10.1007/s12217-016-9488-7.
- A. Kotwal, Yoo-Jae Kim, H. Jiong, and V. Sriraman, “Characterization and Early Age Physical Properties of Ambient Cured Geopolymer Mortar Based on Class C Fly Ash.”, *International Journal of Concrete Structures and Materials*,

Volume 9, No.1, 2015 pp.35-43. DOI 10.1007/s40069-014-0085-0.

## Technical Reports

- Yoo-Jae Kim (PI), “Synthesis on Geosynthetic Reinforced Steep Slopes,” Texas Department of Transportation, Report No. 0-6792-1, March 2016.
- Yoo-Jae Kim (Co-PI) “Synthesis on Cost Effectiveness of Extradosed Bridges,” Texas Department of Transportation, Report No. 0-6729-1, March 2016.

## Workshops and Presentations

- Kim, Y., “Composite Insulated Precast Wall Panels with Shear Transfer Provided By Carbon Fiber Grid,” Korea Institute of Construction Technology (KICT), Seoul, South Korea, July 7 and 24, 2015.
- Texas State offered the first CIM Summer Workshop for High School Teachers in July, 2015. Nine teachers from Austin, San Marcus and Houston participated in the week-long program. The main objective of program was to expose teachers to the CIM program and careers in concrete in the hopes that they might point students to CIM. Funding for the workshop came from the WR Grace Foundation, the Texas State Patrons and the Texas State CIM program.

## Program Representation and Outreach

- **Dr. Kim**
  - Represented the CIM program at Texas State’s Bobcat Day on April 16, 2016.
  - Represented the CIM program at Texas State’s Majors Fair on September 23, 2015.
  - Contributed to chapters in the PCI Design Handbook, 8th Ed.
  - Served as an instructor for the Renewable Energy Research & Education Training Program at Texas State University, May 16-20, 2016.
  - Served as a committee member for now Dr. Juan Gomez Ortega. Juan was a doctoral candidate in the Material Science, Engineering, and Commercialization program. He graduated in December, 2015.
- **Dr. Torres**
  - Represented the CIM program at Texas State’s Bobcat Day on February 13, 2016.
  - Represented the CIM program at Texas State’s Majors Fair on September 23, 2015.
- **Dr. Schemmel**
  - Represented the CIM program and Department of Engineering Technology at Texas State’s 2016 Employer Day.
  - Taught three lectures on concrete, cement production, and hydration to the Material Science, Engineering, and

Commercialization graduate student seminar course (MSEC 7402).

- Served as the technical advisor to now Dr. Ash Kotwal. Ash was a doctoral candidate in the Material Science, Engineering, and Commercialization program. He graduated in December, 2015.
- Met with area high school teachers for the Texas Mining and Reclamation Association's Industrial Minerals Workshop, Round Rock, TX, July 9, 2015.
- Met with the Education Coordinators for the Texas Veterans Commission at the 68th Annual Statewide Training Conference, Galveston, TX, September 17, 2015.
- Worked with Tom Greene (GCP Applied Technologies), Susan Schemmel, and several CIM students from Texas State to offer three day workshops on concrete mixture proportioning and fresh concrete testing at the World of Concrete.
- Developing a new certification program for self-consolidating concrete in cooperation with ACI and ASTM.
- Prepared new guidelines for ASTM C09's Sanford Thompson best paper award.
- Prepared new procedures for the proposal, review, and offering of symposia and workshops by ASTM C09.
- Continued to serve as a consultant to the ICPI Education Committee and NPCA Foundation.
- Developed a training program on aggregates and concrete testing for the government of Qatar.
- The Texas State CIM program was a vendor for the joint TxDOT and Cement Council of Texas (CTT) Concrete Conference held April 2016 in Austin, TX. Tate Talamini, David Sitz and Ben

Wallace assisted CCT with setup and also manned the CIM booth during this event.

- The Texas State CIM program has served, and will continue to serve, as a sponsor for the Austin Chapter of the National Association of Women in Construction (NAWIC).

## RECRUITMENT AND MARKETING ACTIVITIES

### Patron and Student Recruiting Program

- The Construction and Concrete Industry Career Fairs were held on October 1, 2015, and February 11, 2016. More than 70 companies attended each fair.
- The first fall CIM program meeting was held on August 31, 2015. All CIM students were invited to hear about fall semester ACI Chapter activities, travel, recruiting activities and other topics.
- CIM Patron **Victor Bretting**, Osburn Contractors of Fort Worth, TX, hosted a CIM recruitment social at Pluckers in San Marcos on September 17, 2015.
- A CIM program meeting was held on November 23, 2015. All CIM students were invited to hear about spring semester ACI Chapter activities, travel, recruiting activities and other topics.
- On January 6-7, 2016, the Texas Concrete and Aggregate Association held its annual TACamp professional development program at Texas State in the RF Mitte building. CIM student **Tate Talamini** participated in the Beginners Class. Tate also attended TACA's Short Course held in College Station, TX, March 10-11, 2016.
- The Texas State CIM program has served, and will continue to serve, as a sponsor for all of TACA's major events in 2016. This includes TACamp, TACA's Short Course, and the TACA Annual Meeting.

## STUDENT SCHOLARSHIPS AND AWARDS

- The ACI San Antonio Chapter awarded \$1,500 scholarships to **Alex Burkhart**, **Braden Byrd** and **Amy (Ramos) Jimenez**.
- The ICRI South Central Texas Chapter awarded \$1,250 scholarships to **Alex Burkhart** and **Brian Ledsinger**.
- The ACI Central Texas chapter awarded \$2,000 scholarships to **Brian Ledsinger** and **Amy (Ramos) Jimenez**.
- The National Precast Concrete Association's Foundation awarded a \$2,500 scholarship to **Cole Pilgrim**. Cole was sponsored by Dirk Franz of Tricon Precast, Houston, TX.
- The American Concrete Institute's Scholarship Council awarded the \$3,000 Richard D. Stehly Memorial Scholarship to **Cole Pilgrim**. Cole is the first CIM student from any of the four programs to receive a scholarship from ACI's Scholarship Council.



- The Texas State CIM Patrons awarded scholarships ranging from \$300 to \$3,200 to **Alex Burkhart, Braden Byrd, Jeremiah Crespo, Mason Davis, Michael Graves, Chase Hubbert, Tommy Huynh, Jake LaLanne, Bryce Martin, Cole Pilgrim, Ramon Vargas, Ben Wallace** and **Kady Williams**. Scholarships were distributed at the department's annual awards day, April 29, 2016. The Patrons scholarships for 2016 totaled \$15,000.
- Also on awards day, **Alex Burkhart** was recognized for research and received the Dr. Joe Walker Education Grant Scholarship, **Braden Byrd** was recognized for leadership, Brian McAshan for research and **Cole Pilgrim** for leadership, research and academic excellence as a senior.
- The CIM National Steering Committee provided scholarship funds to attract new students to the CIM program. These scholarship funds were matched dollar for dollar by the Texas State Patrons. Students receiving scholarships included **Amanda Amaya, Daniel Arkin, Jewel Arroyo, Quin Cooper, Ben Cosson, Jeremiah Crespo, Jesus Estrada, Rockne Flowers, Michael Graves, Tommy Huynh, Jake Markham, Parker Nerby, Johan Parra, Hayden Rowe** and **Kady Williams**. The NSC ISSF scholarships for 2015-2016 totaled \$16,500 from the NSC with an equal match from the Patrons.
- **Braden Byrd** received the second prize at the second CIM Presentation Competition held as part of the World of Concrete in Las Vegas, NV. The awards are named for Mr. Bob Weatherston.

## PROGRAM ACTIVITIES

### Student Presentations and Publications

- In March 2016, **Ryno Van Leeuwen** presented his study "The Effects Limestone Powder has on the Properties of Precast Concrete and the Environmental Benefits" as part of a poster session at the 2016 PCI Convention and National Bridge Conference in Nashville, TN. Mr. Van Leeuwen received a \$500 travel award from PCI.
- CIM 3330 Concrete Construction Methods: Students made presentations on their respective projects. Topics included: pervious concrete, fly ash and recycled aggregate concrete.
- CIM 4310 Senior Lab: Student projects included Self Consolidating Concrete with different Gradation of Coarse Aggregate, EPS Lightweight Concrete and Effect of Fly Ash Type C and F on Concrete Strength. Students presented their projects on December 8, 2015.
- Students in CIM 4340 Concrete Problems: Diagnosis, Prevention and Dispute Resolution made presentations to their class on their respective case studies.

### Student Chapters

- For the sixth year in a row, the Texas State ACI Student Chapter was recognized as an ACI Excellent University. The Texas State

chapter was one of 22 student chapters that received this award in 2015. Texas State is one of the only five chapters (Arizona State University, Missouri S&T, Texas State University, Universidad Autónoma de Nuevo León and the University of Arkansas), and the only CIM program that has received the Excellent University award every year since its inception in 2010. The chapter was recognized at the ACI Spring Convention in Milwaukee, WI on April 17, 2016.

- The ACI Student Chapter elected officers for the 2016-2017 academic year. Officers are **Tate Talamini** (President), **Ben Wallace** (Vice President), **Bryce Martin** (Treasurer) and **Kady Williams** (Secretary). In addition, **Cole Pilgrim** will serve as Appointments Chair. **Dr. Aguayo** will serve as the new faculty adviser for the 2016-2017 academic year.

### Certifications

- CIM 3420 Fundamentals of Concrete: Properties and Testing: Ten students took and passed the ACI Field I Certification exam on April 23, 2016. The ACI Central Texas Chapter administered the exams.

### Field Trips

- Students visited the following industry offices and facilities
  - CIM 4310 Senior Lab, WJE Material Laboratory, Austin, TX, September 1, 2015.
  - CIM 3420 Fundamentals of Concrete: Properties and Testing.
- Martin Marietta quarry and cement plant, February 24, 2016.
- Ingram Ready Mix batch plant, March 2, 2016.
- A group of CIM students and guests toured the Circuit of the Americas (COTA) race track in Austin, TX on September 11, 2015. COTA is an international racing facility with several concrete structures.
- While attending the ACI Fall and Spring Conventions, Dr. Schemmel, Alex Burkhart, Michael Graves (Fall) and Cole Pilgrim (Spring) were able to visit local concrete-related facilities. The group visited Colorado Precast on November 10, 2015 and Putzmeister on April 19, 2016.

### CIM Program Community Involvement

- CIM 3340 Understanding the Concrete Construction System: Students worked on an actual concrete rehabilitation project previously completed by Gaeke Construction. Mr. Robert Gaeke, President of Gaeke Construction, presented an overview of the project.

### Student and Faculty Conference and Event Attendance

- **Dr. Kim**
  - Attended NRMCA (San Antonio, San Diego), PCI (Louisville, Nashville), PCMA (San Antonio), NPCA (Minneapolis, Nashville), ASCC (Dallas).



- **Dr. Torres**
  - Attended ICRI (San Juan).
- **Dr. Schemmel**
  - Attended ACI Chapter meetings (Austin, San Antonio, Oklahoma City, New Mexico), CMAA Chapter meeting (San Antonio), ICRI Chapter meetings (Austin, Dallas), NAWIC Chapter meeting (Austin), ACI (Denver, Milwaukee), ASCC (Dallas), ASTM (Tampa), ICPI/NCMA (Orlando), ICRI (Dallas), NPCA (Minneapolis, Nashville), NRMCA (San Antonio), TACA (Austin, Dallas, San Marcos) and WOC (Las Vegas).
  - Met with representatives of Argos, Baker Concrete, BASF, Bautex, BHM Systems, CMC Commercial Metals, Lehigh Hanson, National Slag Association, Sedalco, Structural, Sundek, TMT Solutions, TxDOT and QuestMark.
  - Attended Industry Dry as part of the Texas Tech Smartii consortium research proposal.
- **Dr. Schemmel and Torres**
  - Hosted several representatives of the TxDOT at Texas State to continue discussions regarding research and contract study opportunities.
- In October 2015, five Texas State CIM students attended the ACI Convention in Denver, CO along with **Dr. Torres** and **Schemmel**. **Alex Burkhart, Michael Graves, Amy (Ramos) Jimenez** and **Brian Ledsinger** represented Texas State in the Pervious Concrete competition.
- Several CIM students attended NRMCA's ConcreteWorks conference in San Antonio, TX, September 20-22, 2015. Those attending included **Alex Burkhart, Braden Byrd, Jesus Estrada, Tyler McKay, Cole Pilgrim, Kevin Robbins, Josh Sell, David Sitz, Tate Talamini, Derek Watson, Dr. Schemmel** and **Ben Reese** (CIM adjunct instructor).
- **Alex Burkhart** (NPCA Scholarship recipient) and **Dr. Schemmel** attend the NPCA Annual Meeting and NPCA Foundation meeting and fundraiser in Minneapolis, MN, October 21-24, 2015.
- Ten CIM students and **Dr. Schemmel** attended the World of Concrete in Las Vegas, NV in February 2016.
- **Daniel Arkin, Alex Burkhart, Mason Davis, Bryce Martin, Cole Pilgrim, Kady Williams** and **Dr. Schemmel** attended the NPCA Precast Show in Nashville, March 4-7, 2015.
- **Alex Burkhart, Tyler McKay, Cole Pilgrim, David Sitz,**



**Ben Wallace** and **Dr. Schemmel** joined two students from Chico State, six students and two faculty members from Middle Tennessee State, and two students from NJIT to participate in Constructionarium in Bircham Newton, England. Dr. Schemmel had the opportunity to meet with the Steffono brothers who provided the original funding for Constructionarium. **Mr. Robin Holdsworth** coordinated the event for CIM.

- **Dr. Schemmel, Alex Burkhart** and **Cole Pilgrim** attended the ACI Spring Convention in Milwaukee, WI, April 17-20, 2016. Alex presented his research “Effect of Foundry Waste on the Mechanical Properties of Portland Cement Concrete” during the S805 committee session “Undergraduate Research on Concrete Materials, Structural Design, or Construction.”

## Program Visitors and Presenters

- **CIM 3420 Fundamentals of Concrete: Properties and Testing**
  - **Mel McCall**, Sundek, February 10, 2016.
  - **Dan Greene** and **Brian Short**, QuestMark, April 13, 2016.
  - **Chris Leonard**, Bautex, April 25, 2016.
  - **Michael Howarth**, representing the National Slag Association, April 25, 2016.
- **CIM 4310 Senior Lab**
  - **Dr. Derek Cong**, WJE Associates, Inc, November 10, 2015.
- **CIM 4398 Capstone**
  - **Jim Sorg**, Structural, September 9, 2015.
  - **Greg Elliott**, BHM Systems, September 23, 2015.
  - **Al and Ashley Mikolas**, Baker Concrete, Houston, September, 30, 2015.
  - **Scott Howard**, Sundek, November 4, 2015
- **CSM 2342 Construction Materials and Processes**
  - **Michael Beer** and a colleague, Argos, December 18, 2015.
- **Justin Dickey**, TEX-MIX and CIM alumni, spoke to the ACI Student Chapter on October 21, 2015.
- **Representatives from Argos** spoke to the ACI Student Chapter on November 18, 2015.
- **Representatives from both Sundek and Myers Concrete** were on campus February 10, 2016, to make presentations to CIM students. **Mel McCall** of Sundek spoke to the students in CIM 3420 while **Randy and Charlene Myers** spoke to the ACI student chapter.
- **John Ziebell**, Texas Protective Coating Consultants, Inc. (TPCCI), spoke to the ACI Student Chapter on March 9, 2016
- **Dan Greene** and **Brian Short**, QuestMark, spoke to the ACI Student Chapter on April 13, 2016.

## PROGRAM SUPPORT

### Texas State University CIM Patrons

The Texas State Patrons Board met on September 9, 2015, November 5, 2015, January 6, 2016, and April 22, 2016, in San Marcos, TX. They also met on June 29, 2016, during TACA’s annual meeting in San Antonio, TX.

## ADDITIONAL PROGRAM NOTES

- CIM students Alex Burkhart, Amy (Ramos) Jimenez, Brian Ledsinger, Justin Sullivan and Derek Watson served as “models” for marketing pieces that appeared in a special educational publication distributed by Texas Contractor magazine.
- Alex Burkhart, Amy (Ramos) Jimenez, Ash Kotwal (MSEC student), Brian Ledsinger, Tyler McKay and Justin Sullivan all served as “technicians” for ASTM’s updated video demonstrations for its concrete field and strength testing training materials. These videos will be used across the world to help train technicians in the proper testing of concrete. Videos were shot during the week of November 16, 2015.
- The fall 2015 NSC Board of Directors meeting, and other related meetings, were held at Texas State University, October 6-7, 2015.

## FINANCIAL INFORMATION

INCOME	National Steering Committee	\$100,000
	CIM Patrons	\$20,524.20
	Scholarships	\$15,000
	CIM Faculty Salary	\$370,254.20
	<b>Total Income</b>	<b>\$505,778.40</b>

EXPENSES	Salaries - Faculty	\$370,254.20
	Salaries - Student Employees	\$2,467.56
	Operating	\$42,647.84
	Travel	\$77,043.14
	Scholarships	\$15,000
<b>Total Expenses</b>	<b>\$507,412.74</b>	



**ROGER  
INSYXIENGMAI,  
MTSU**

**What school are you currently attending and when is your intended graduation date?**

I am currently a senior at Middle Tennessee State University and intend to graduate in May 2017.

**Why did you choose this university?**

I chose MTSU because the facilities here for my major are second to none. I grew up in Middle Tennessee and consider myself very fortunate to be a local resident to the oldest and largest CIM program in the country. MTSU was a no-brainer decision for me because the CIM program has a great reputation within our town.

**What made you decide to join the CIM program?**

I joined the program because I've always been fascinated with infrastructure. The concrete industry sparked my interest when I realized that there will always be a demand for concrete and it's used in everything around us. CIM was also recommended by my sister, mentor, and friends who are all alumni of the program and spoke highly of the close-knit family environment.

**The CIM program works with businesses in providing summer internships. Have you been able to take advantage of that program or any other special program to develop your industry knowledge?**

I'm currently at my two-month summer internship at Nael in Dubai, UAE. Nael has several different plants which include ready-mix, precast, pre-stressed hollow core slabs and cement. In the ready-mix plant, I worked in quality control and was given the task to test materials and create various mix designs. In the precast and cement plants, my responsibilities were to improve the production and operation management in the facilities.

**How has CIM prepared you for working in the concrete industry?**

The CIM program has single handedly developed me into a professional. The program constantly challenges me to improve my personal, public speaking and interview skills. The CIM lab and the program's involvement in the community have given me numerous opportunities to get hands-on experience. CIM has taught me the management side of the industry.

**Have you had any particularly meaningful or exciting experiences in the program?**

My favorite experience is the coral reef restoration project in the Dominican Republic. MTSU's CIM program spent two consecutive summers to help rehabilitate the small fish population. We completed 19 concrete prisms the first year and 26 the second year to help benefit the environment.

**What advice would you give to someone considering joining the CIM program?**

My advice would be to join the program without any hesitation. The program will get to know you on an individual basis and help you be successful in life. CIM will teach you how to be a professional, connect you with industry leaders and allow you to have fun while enjoying what you're doing.

"I joined the program because I've always been fascinated with infrastructure. The concrete industry sparked my interest when I realized that there will always be a demand for concrete and it's used in everything around us."

“The program is a mixture of hands-on and book knowledge. Engineering programs do not always offer that, which I personally think is important. Students must know how to apply the knowledge they learn from books to tackle real-world problems.”



**DONIA  
ABDELMOTAAL,  
NJIT**

**What school are you currently attending and when is your intended graduation date?**

I am currently attending New Jersey Institute of Technology. I will be graduating in May of 2017.

**Where are you from originally?**

I am proud to say I am originally from Egypt.

**Why did you choose this university and the CIM program?**

I chose NJIT because it is known to have one of the best engineering and architecture programs in the tri-state area. I began as a civil engineering major, but within a semester, I decided it was not for me. I transferred to the architecture program, with an environmental and sustainability studies minor. Halfway into the architecture program, I heard about the CIM program and found it to be different and interesting. I reached out to Dr. Mahgoub and immediately became part of the NJIT CIM family, while continuing my five-year architecture program. And, I have to say, it was one of the best decisions I made in my life.

**How has the CIM program prepared you for your upcoming graduation and entrance into the business world?**

The CIM program helped me from the beginning. All of the courses are taught by individuals that are heavily involved in the concrete industry. The program is a mixture of hands-on and book knowledge. Engineering programs do not always offer that, which I personally think is important. Students must know how to apply the knowledge they learn from books to tackle real-world problems. Additionally, I have been able to network and meet individuals that I probably would not have met outside the program.

**The CIM program works with businesses in providing summer internships. Have you been able to take advantage of that program or any other special program to develop your industry knowledge?**

Last summer, I was fortunate to intern at the Port Authority of New York and New Jersey (PANYNJ) in the materials department. I shadowed numerous engineers and technicians in the concrete department inside the lab and out in the field. The experience taught me so much and I was easily able to apply the knowledge I learned at school. I am still interning with PANYNJ and also working in the World Trade Center construction department.





**GERMAN FUENTES,  
CALIFORNIA STATE  
UNIVERSITY CHICO**

**What school are you currently attending and when is your intended graduation date?**

I am currently attending California State University, Chico and my expected graduation date is May 2018.

**What made you decide to join the CIM program?**

Coming into college I had my mind set on becoming a registered nurse, which I found out did not suit me at the end of my freshman year. Working in construction with my father my whole life, I found that I had a liking for what I did. Coming into my sophomore year, I had looked into other majors before deciding to go with the CIM program. I saw that the other programs did not offer the type of environment, interesting selection of courses and the many opportunities upon graduation that CIM offers.

**The CIM program works with businesses in providing summer internships. Have you been able to take advantage of that program or any other special program to develop your industry knowledge?**

I was fortunate enough to intern with Holliday Rock Co., Inc. this past summer. I spent time in many different departments with a focus on learning how processes work to provide Holliday Rock's customers a high level of customer service. I worked in the quality control lab testing and designing mixes, dispatching, taking customer orders, outside sales in building relationships with the top buying customers, and, most importantly, learning how the plants operate.

**How has CIM prepared you for working in the concrete industry?**

The CIM program offers many opportunities for internships and community service opportunities to build and learn. The internships that the Patrons of the program provide are also great for the students because we are able to experience and learn what happens in the field and inside the office.

**What advice would you give to someone considering joining the CIM program?**

Don't be afraid to try something new. The name of the major might not seem as appealing, but it is possibly one of the best majors and most enjoyable that one would ever join. Also, get involved in the activities because it is a great way to build relationships with people in the program.

**Is there anything else you would like to share about your experience with CIM?**

CIM has been one of the best decisions that I have made. I have learned to grow from this program and found a passion for a career. The CIM family (faculty, classmates and friends) that one builds in this program is something that I will treasure.

“CIM has been one of the best decisions that I have made. I have learned to grow from this program and found a passion for a career. The CIM family (faculty, classmates and friends) that one builds in this program is something that I will treasure.”

“Texas State’s CIM program has prepared me for my future in more ways than I can express. Every day when I’m on our jobsite, I see and experience things that I have learned about in the classroom.”



**BRADEN BYRD,**  
TEXAS STATE  
UNIVERSITY

to the general contractor, keeping inventory on all material and pieces of equipment that are delivered to us, performing take offs to help track our concrete yield throughout the project, and assisting the management team in any way I can.

**How has CIM prepared you for working in the concrete industry?**

Texas State’s CIM program has prepared me for my future in more ways than I can express. Every day when I’m on our jobsite, I see and experience things that I have learned about in the classroom. I understand that I still have a lot left to learn, but Texas State has provided me with an amazing foundation to base the rest of my career on.

**Have you had any particularly meaningful or exciting experiences in the program?**

The best experience by far was getting to attend World of Concrete in Las Vegas with eight other Texas State students. While in Las Vegas, I got to compete against seven CIM students from across the country where we gave presentations about past internships, and I was lucky enough to receive runner-up.

**What advice would you give to someone considering joining the CIM program?**

My advice would be simple: join the program! The countless opportunities this program offers to each and every student are simply amazing.

**What is something you’ve learned from the program that will stick with you long after you’ve graduated?**

The biggest thing that the CIM program has taught me over the past three years is that getting out of your comfort zone can provide you with opportunities you would have never thought imaginable.

**What school are you currently attending and when is your intended graduation date?**

I am attending Texas State University and plan to graduate in December, 2016.

**Why did you choose this university?**

Texas State has a small school feel with big school opportunities. Plus, who doesn’t love the San Marcos River?

**What made you decide to join the CIM program?**

An academic advisor told me about the program when I was looking to change my major. After doing some research and learning about all the job opportunities the state of Texas has to offer, I decided the CIM program was where I needed to be.

**The CIM program works with businesses in providing summer internships. Have you been able to take advantage of that program or any other special program to develop your industry knowledge?**

In the summer of 2016, I interned with Osburn Structures in Dallas, Texas. Currently, I am on a project called the Irving Music Factory. My job duties include documenting daily work activities



**MATTHEW  
VALENCIA,  
NJIT**

environment is faced with, which is storm water management. In the technical sales support representative role, I have the opportunity to develop relationships with individuals in the industry who are like-minded and are working toward the solution of storm water management.

**Why did you choose to attend your university?**

NJIT does an amazing job of not only educating students, but also developing individuals to have a strong work ethic. During my time at NJIT, I was able to develop leadership skills with the Lisa A. Pierce Center for Leadership that have already proven to be critical in my development, both in my personal and professional life. During my decision-making process to attend NJIT, it was evident to me that this was the perfect school where I could develop as an individual.

**What made you decide to join the CIM program?**

The CIM program was appealing to me in that it represents a \$237 billion industry with many different opportunities. The CIM program created the avenue for me to enter an industry that was very technical in nature, but also has the business and environmental impact that interests me.

**How did CIM prepare you for working in the concrete industry?**

The CIM program has prepared me to be successful in this industry by setting the foundation early on so that it can be built upon with my experiences. They have instilled a good understanding of what kind of work ethic is required to be successful in this industry.

**What advice would you give to someone considering joining the CIM program?**

CIM is a great program that will provide many opportunities for you to succeed in this industry. However, if you don't put in the work to take advantage of those opportunities, they will be handed to the person that is willing to go the extra mile.

**What school did you graduate from and in which year?**

I graduated from the New Jersey Institute of Technology in May 2016.

**Who is your current employer and where are they located?**

I currently work for StormTrap in Romeoville, Illinois.

**When did you start your current job, what is your position and what are your job responsibilities?**

I started with StormTrap in June 2016 as a technical sales support representative. I am responsible for supporting territory managers (TM) in selling high-end storm water design services and solutions to civil engineers and site work/utility contractors in a complex multi-stage sales environment. Extensive contact is required with the northeast team to communicate timely project details and specific product details.

**Why did you choose this position and company?**

I choose StormTrap because they are a young, progressive company that is solving one of the biggest issues the

“CIM is a great program that will provide many opportunities for you to succeed in this industry. However, if you don't put in the work to take advantage of those opportunities, they will be handed to the person that is willing to go the extra mile.”

“No other major will compare to the great jobs that CIM has created for its graduates. This major isn’t the easiest and probably isn’t for everyone, but with hard work you will have a very rewarding career.”



**ROBBY ADKISSON,**  
MTSU

**What school did you graduate from and in which year?**  
I graduated from Middle Tennessee State University in May 2015.

**Who is your current employer and where are they located?**  
I am working for Wirtgen America in Nashville, Tennessee. (Wirtgen Group: Windhagen, Germany)

**When did you start your current job, what is your position and what are your job responsibilities?**  
I started with Wirtgen Group as an intern May 2014 and began full-time employment in May 2015. I am currently a field service engineer for concrete slip-form pavers, curb-gutter machines and concrete texture-cure machines. Once an order has been placed for a slip-form machine, I will review job specifications and prepare the machine accordingly for the job. I then travel to the jobsite and set up the required machine and train the customer on proper operation. I also work with the customer’s ready mix supplier to ensure that we will have a good mix design for the job to achieve the best finish.

**Why did you choose this position and company?**  
I chose Wirtgen Group because they are the world’s largest manufacturer of road construction equipment and have been in the concrete slip-form paving business throughout the world for decades. Wirtgen Group introduced slip-form products into the American market five years ago, and because of the concrete knowledge I learned from the CIM department at MTSU, I felt that I could be a great fit to help grow our business.

**What made you decide to join the CIM program?**  
I started as an agriculture business major, but quickly realized that there were no jobs upon graduation for that degree. CIM was already a major I was interested in before I made my final decision. I went to the CIM department and learned at that time that job placement before graduation was around 70 percent, even at the end of the recession!

**What advice would you give to someone considering joining the CIM program?**  
Look at the other majors you might be interested in and compare them to CIM and its career placement. No other major will compare to the great jobs that CIM has created for its graduates. This major isn’t the easiest and probably isn’t for everyone, but with hard work you will have a very rewarding career.

**What advice would you give a student about to graduate and enter the working world?**  
Go to every event and attend every social, talk to everyone that you can and network with industry professionals. Go to World of Concrete in Las Vegas and talk to people at the show. I have travelled throughout the United States and discovered a lot of people know of the CIM program and are ready to hire students.



**SALLY VICTORY,**  
MTSU

The career opportunities are endless within this industry. Once people get past the blue collar work mindset and learn that it is much, much more, parents and students learn of the great industry opportunities. You can have a lifelong career in this industry. Strong industry support and fundraising efforts that allow CIM students to visit, explore and participate is a wonderful perk.

**What advice would you give to a student who isn't sure about the career path they want to take?**

Hopefully the Introduction to Concrete (CIM 1010) class will give you some idea of the difference between the two paths. Also, do multiple internships on both sides of the concentrations. Being out on different job sites allows you to get a definite feel for what is for you, and with that students can certainly decide.

**What advice would you give a student about to graduate and enter the working world?**

If at all possible, leave your options open for location. Go with your area of interest first, the company you prefer, and in the end you will be happier. Make the best of what you have learned to further your career. Show a good strong work ethic.

**In your opinion, what is something the CIM program offers that no other programs in the country do?**

The curriculum is full of concrete knowledge and incorporates a business portion — which is critical to succeed in the concrete industry. Highly trained faculty in this particular field is not easy to find and CIM has those.

**Is there anything else you would like to share about your experience with CIM?**

I've learned so much about the concrete industry working at MTSU. The industry is so large, yet has such a close-knit family feel. I've been able to meet so many people and I take pride seeing our alumni succeed with their careers.

**Which CIM program are you involved with and what are your responsibilities?**

I have been with the CIM program at Middle Tennessee State University for 11 years. After MTSU received a National Science Foundation Grant to expand the CIM Program to other universities, there was a lot of work to be done. My role was to offer clerical support to this effort. After completion, it was evident that another staff person was needed to keep up with the growth of the flagship program.

**Have you had any particularly meaningful or exciting experiences during your time with the program?**

Because CIM is still so unique it didn't take long to feel the family environment. The close relationships that are established with students-turned-alumni are very rewarding. Seeing alumni so successful in their careers makes you realize that you somehow made a small difference to many.

**What advice would you give to someone considering joining the CIM program?**

“The career opportunities are endless within this industry. Once people get past the blue collar work mindset and learn that it is much, much more, parents and students learn of the great industry opportunities. You can have a lifelong career in this industry.”

“CIM is a rare jewel. I've been so honored to represent such a unique program and I couldn't be more proud of the students that graduate from our university. This program has such great support from its industry and supporters that truly believe in what we are doing as a program.”



**AMANDA MULLER,  
CALIFORNIA STATE  
UNIVERSITY CHICO**

**Which CIM program are you involved with and what are your responsibilities?**

I am currently the Administrative Coordinator of Student Outreach and Recruitment at California State University, Chico. This fall, I am teaching the CIMT 101 class and am a part-time lecturer.

**What made you decide to join the program?**

I applied for the program when I heard about the amazing opportunities and success the program had for its students. It's amazing to see the student-industry relationship developing as soon as they declare the major. There aren't a lot of majors out there that provide the support and tools to be a successful graduate and representative of this program. I'm truly lucky to be a part of this program.

**Have you had any particularly meaningful or exciting experiences during your time with the program?**

This program is one of the best things that has happened in my career. Being able to develop students and provide the support they need to be successful in the classroom and in the industry

is very rewarding. I take pride in knowing the students by name and being able to guide them through their college experience. In my position I'm also able to spread the word to students at both the high school and community college level about the opportunities available.

**What advice would you give to someone considering joining the CIM program?**

College is a very confusing place. You need to know your options. If this degree sounds interesting, I think you should AT LEAST take the CIMT 101 class to see if this could be the path for you. There are so many different pathways this degree offers. Something that isn't vocalized enough is the family atmosphere that is offered when joining the program here at Chico.

**In your opinion, what is something the CIM program offers that no other programs in the country do?**

CIM is a rare jewel. I've been so honored to represent such a unique program and I couldn't be more proud of the students that graduate from our university. This program has such great support from its industry and supporters that truly believe in what we are doing as a program. The scholarship program available for students is phenomenal. More and more I see students struggling to find the funds to go to college. With the support of the Patrons group and the industry, this program makes dreams possible. I recruit students from various backgrounds, and some of those students are in serious need of aid to pursue their futures. I can't thank the National Steering Committee, our Patrons and industry enough for their generosity to help CIM students worry less about how to pay for school and to focus more on the classroom.



**STEPHAN BUOL,**  
NORTHERN CALIFORNIA  
AREA SALES MANAGER  
*Vulcan Materials Company*

proud alumnus. I am always eager to take advantage of any opportunity that I can get to promote our wonderful industry and the “Chico Experience.”

**What is your favorite part of being a Patron? What has been the most difficult part of it?**

I would have to say that my favorite part is when I am invited to be a guest lecturer. To think that I used to sit in those same classrooms so many years ago, and now I am standing up front, it just makes me proud. As far as the most difficult part, it is probably judging the capstone presentations. They are all so good and it is usually very hard to pick the best one.

**What advice would you give to someone considering becoming a Patron of the CIM program?**

Give it a try. I think that once you are involved, you will wonder why you didn’t participate earlier. It is up to us, the members of our industry, to pay it forward, pay it back and do our part in succession planning. The future leaders of our industry are developing now.

**In your opinion, what is something the CIM program offers that no other programs in the country do?**

CIM provides exposure to the industry, and conversely industry member exposure to future talent, that I believe is unmatched by other programs. In this program, companies and students are afforded the opportunity to get to know each other over an extended period of time. Each individual is able to spend time and benefit from this exposure. It only helps achieve a better understanding of all parties involved.

**What kinds of activities, events and opportunities do the Patrons provide for CIM students?**

In addition to the many internships that are offered to the students, many of the Patrons open their facilities to plant tours or field trips. Also, during the student socials and board meetings, many of the Patrons sit down and speak with the students one-on-one about our industry and possible careers. Lastly, many of the graduated students are hired by the Patrons.

**Why are the Patrons such a critical part of the CIM program?**

The ability of the Patrons to give input on what skill set is needed for potential future leaders of our industry is a key component. Also, the financial backing of the Patrons’ group is a huge consideration in this day and age. In addition, the exposure the students get to the current leaders of our industry is, in my opinion, invaluable to the students.

**What made you decide to serve as a Patron?**

For one, I truly believe that a career in our industry is a rewarding and vital career. I want to pass that sentiment along to the students. I am a graduate of Chico State and I am an extremely

“CIM provides exposure to the industry, and conversely industry member exposure to future talent, that I believe is unmatched by other programs. In this program, companies and students are afforded the opportunity to get to know each other over an extended period of time.”

# ASSOCIATIONS



American Concrete Institute  
*Always advancing*



Portland Cement Association



American  
**Concrete Pipe**  
Association

National Concrete Masonry Association  
**FOUNDATION**

**PCI**  
**FOUNDATION**



INTERNATIONAL  
**CONCRETE REPAIR**  
INSTITUTE



PROVIDING THE MEANS TO ADVANCE CONCRETE CONSTRUCTION



The following resources are a vital part of the curriculum in all of the CIM universities. Association publications and websites play a huge role in developing and maintaining the program — they allow our curriculum to be current and relevant.

American Concrete Institute (ACI)

American Concrete Pavement Association (ACPA)

American Concrete Pipe Association (ACPA)

American Society of Concrete Contractors (ASCC)

American Society for Testing and Materials (ASTM)

Concrete Reinforcing Steel Institute (CRSI)

Federal Highways Administration (FHWA)

Hanley Wood

International Concrete Repair Institute (ICRI)

National Concrete Masonry Association (NCMA)

National Precast Concrete Association (NPCA)

National Ready Mixed Concrete Association (NRMCA)

Portland Cement Association (PCA)

Precast/Prestressed Concrete Institute (PCI)

The Masonry Society (TMS)

The Post-Tensioning Institute (PTI)

## Advancing the Concrete Industry by Degrees

Recognizing the need for people with enhanced technical, communication and management skills, the Concrete Industry Management (CIM) program was developed in 1996 at Middle Tennessee State University (MTSU). The individuals graduating from this program have the skill set necessary to meet the growing demands of the progressively changing concrete industry of the 21st century. It is a business intensive program, providing solid management skills that can be used in any industry, but has been developed specifically for the concrete industry. The program gives students many advantages including entering the concrete work force with exposure to the industry early in their careers, unlike others coming in with generic business degrees.

The goal of the program is to produce broadly educated, articulate graduates grounded in basic business management, who are knowledgeable of concrete technology and techniques and are able to manage people and systems as well as promote products or services related to the concrete industry. It entails a broad range of courses, from English and history to science and mathematics. A series of required business courses such as finance, marketing, management and business law are also taken throughout the length of the program. The concrete-specific courses teach the fundamentals of concrete, properties and testing, concrete construction and more. All of these courses provide much more than what is simply in the text – they emphasize problem solving, quality assurance and customer satisfaction. They utilize practical case studies and an internship to make sure the student obtains real-world experience essential to starting a successful career.



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### 2015-2016 NSC Leadership

The need for such a program was recognized and put into action by the concrete industry. The end-result was a partnership between the concrete industry and MTSU to develop the CIM program, implementing it with its first two students in 1996. Available at MTSU, California State University, Chico, the New Jersey Institute of Technology, and Texas State University, the program has been successful for both the industry and the graduates.

### The National Steering Committee

Administrative bodies were needed within the concrete industry to manage participation, guidance, and other forms of support related to the program. A grassroots advisory group, the CIM Patrons, was formed to raise funds, promote the program, recruit and mentor students, and provide guest lecturers for classes. A National Steering Committee (NSC), made up of pioneering concrete industry executives, was established to provide oversight to the CIM curriculum and supply guidance for general program direction from a national perspective.

The NSC Board of Directors includes the leadership of long-standing CIM financial supporters RMC Research & Education Foundation (RMCREF) and the Portland Cement Association (PCA). It has been joined by the National Ready Mixed Concrete Association (NRMCA), the American Society of Concrete Contractors (ASCC), The American Concrete Pipe Association (ACPA), National Concrete Masonry Association (NCMA), International Concrete Repair Institute (ICRI), the National Precast Concrete Association (NPCA), the Precast/Prestressed Concrete Institute (PCI) and the American Concrete Institute (ACI) Foundation.

For more information, visit [www.concretedegree.com](http://www.concretedegree.com).




# 2016-2017 BOARD OF DIRECTORS

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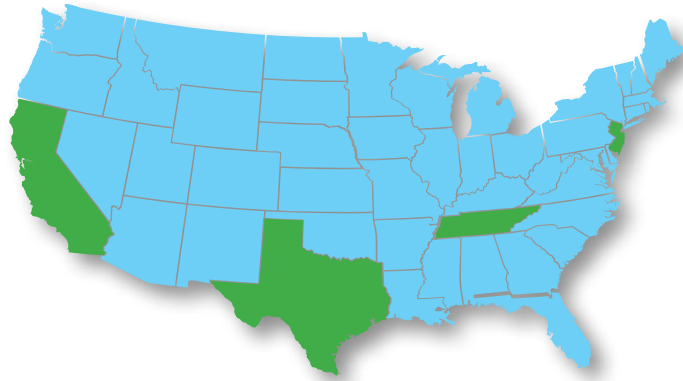
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**382**  
TOTAL  
PROGRAM  
ENROLLMENT  
*in 2015-16*

**1,009** CIM GRADS  
TO DATE

**SEVENTY-ONE**  
*Grads in 2015-16*



**\$122K**

SCHOLARSHIP GRANTS FOR NEW  
STUDENTS ENTERING PROGRAM  
AVAILABLE FROM NSC

AT CHICO

**100%**  
PERCENT OF  
2015-16  
GRADUATES  
HAD JOBS UPON  
GRADUATION

**300** Hours of  
community  
service by  
students and faculty  
at Sierra View  
Elementary school  
courtyard project



JOB INTERVIEWS  
HELD ON  
CAMPUS THIS YEAR

**630+**

AT MTSU

**7,528** Miles from Murfreesboro,  
TN to Dubai, UAE for  
summer internships  
with Nael Cement Products

AT NJIT

**89%** PERCENT OF 2015-16  
GRADS HAD EMPLOYMENT  
UPON GRADUATION

AMOUNT IN SCHOLARSHIP  
DOLLARS GENEROUSLY  
PROVIDED BY LOCAL PATRONS

**\$25K**

**24%**

PERCENT  
INCREASE IN  
ENROLLMENT  
FROM 2014-2015

**\$15K**

AMOUNT IN  
SCHOLARSHIPS  
PROVIDED BY  
PATRONS

AT TEXAS  
STATE



*“Advancing The Concrete Industry By Degrees.”*

[www.concretedegree.com](http://www.concretedegree.com)