

CALIFORNIA  
STATE  
UNIVERSITY  
– CHICO



MIDDLE  
TENNESSEE  
STATE  
UNIVERSITY



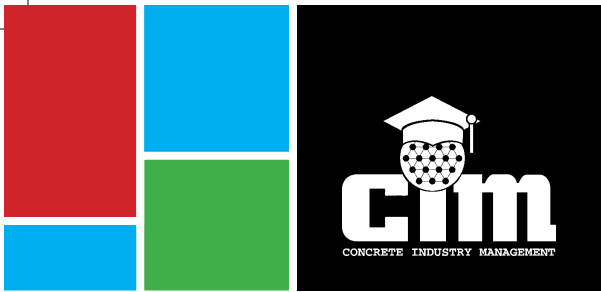
NEW JERSEY  
INSTITUTE OF  
TECHNOLOGY



2016-2017 ANNUAL REPORT

TEXAS STATE  
UNIVERSITY





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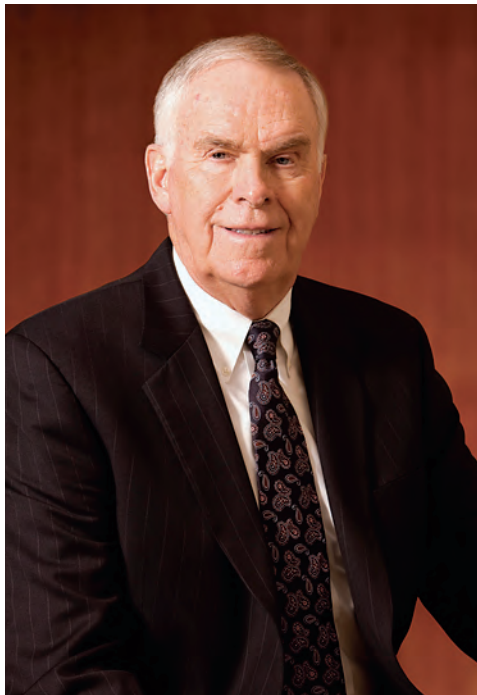
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## INTRODUCTION FROM THE EXECUTIVE DIRECTOR



SINCE THE INCEPTION of the Concrete Industry Management (CIM) program at Middle Tennessee State University in 1995, so much of what was envisioned then



is now reality. With the first freshman class of five students in 1996 until now, the program has produced more than 1,000 graduates. Most impressive is the fact that well over 80 percent of those graduates are pursuing careers in the concrete industry. Today, there are four outstanding universities with CIM programs. In addition to the initial program established at Middle Tennessee State University, there are programs at California State University-Chico, New Jersey Institute of Technology and Texas State University. Enrollment in the programs today approaches 500

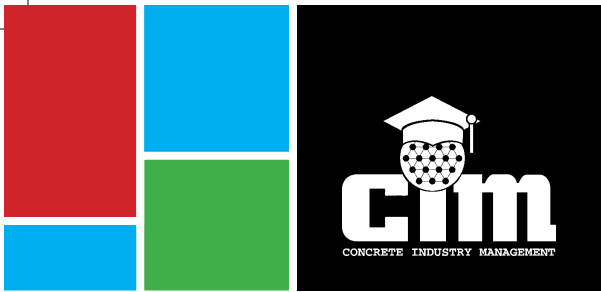
students actively pursuing CIM degrees. While this growth is impressive, it is obvious that there is still a great deal to be done to fully meet the concrete industry's need for CIM graduates. That task falls squarely on the shoulders of the National Steering Committee (NSC) for CIM, each program's local industry Patrons groups and the program universities.

The NSC, in fiscal year 2016-2017, had another successful year in its efforts to advance the CIM program. I encourage you to read in this annual report all the activities of the various NSC committees and learn how they are actively executing the NSC's mission of providing oversight,

direction, funding and advancement to the CIM program. Each of the committees are chaired by industry professionals uniquely qualified to lead their committees. In this report you will also read how each of our program universities are successfully educating students in this unique concrete industry experience. The students of today are receiving a matchless education that is steeped in extensive exposure to the many facets of the concrete industry.

The foundation for the success of the CIM program is dependent on the partnership that the NSC has with each program's local concrete industry Patron group and the program universities. The NSC's focus is on the broader aspects of advancing the overall CIM program through oversight, collaborative efforts and funding that provides for a consistent level of excellence with all graduates. Each local Patron group similarly directs their focus on their individual program and their program universities. Much of the NSC's direction through its committees and Board of Directors is a culmination of collective input from both the local Patrons and program universities. Likewise the NSC provides input to both the Patrons and program universities.

While the NSC is proud of what has been accomplished, it is mindful of the challenges it has yet to fully address. Even with the success of four outstanding program universities, producing more than 1,000 CIM graduates and 850 future industry leaders, we are well aware that there is much more to be done. This past year, the NSC has been focused on two major issues that were identified as critical for the continued advancement of the CIM program. Over the past several years, as the concrete industry recovered from the recession, it is obvious there is a need to recruit more students to the program. This is evidenced by the concrete industry's demand for more CIM graduates. Currently, every graduate that actively pursues employment in the industry is guaranteed a job. In fact, many of our graduates have multiple job offers upon graduation. Consequently,



## INTRODUCTION FROM THE EXECUTIVE DIRECTOR

there are job openings that are left unfilled. The NSC, in collaboration with the local Patron groups, over the past several years have developed new student scholarships that are designed to assist with recruiting additional new students to the program. Because of the initial success of this new program and the growing need for graduates, this past year, the NSC Board of Directors voted to double the amount of dollars committed to the scholarship program to \$50,000 per university. This commitment is matched by each of the local Patron groups. While this investment is helping raise student headcount, there is more that needs to be done. Therefore, the NSC continues to keep student recruitment as a top priority and is currently exploring additional ways to collaborate with local Patrons and program universities to grow student population.

A second, and equally important, initiative that was a major focal point for the NSC this past year was growing its own membership. While the concrete industry has, in general, been supportive of the efforts of the NSC and has been willing to contribute financially to its progress in advancing CIM, the actual work of NSC has been left to a small group of very dedicated individuals. With the growth of CIM and the growing number of both opportunities and challenges that exists, a broader representation on the NSC is needed from the concrete industry to continue to advance the program. Therefore, to address this issue, a

membership committee was formed late in this fiscal year. The committee has been actively developing a target list of companies and industry associations and foundations that fit the description of those that should be represented on the NSC. The committee will be actively recruiting in the 2017-18 fiscal year. Many of the targeted companies understand the importance of NSC's role in sustaining a successful CIM program, as they have benefited by employing a significant number of CIM graduates. Knowing our industry as I do, I believe it is more a case of not being asked rather than a willingness to serve. We believe by expanding the NSC it will greatly assist in the overall growth of the CIM program. A requirement of NSC membership includes the entity's participation in all Patron groups in regions where they are established. The expansion of the local Patrons will greatly assist the program university's student recruitment efforts.

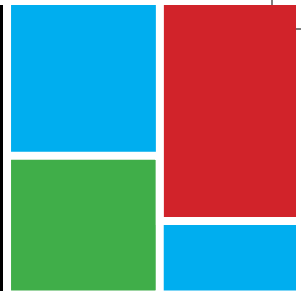
If you are someone who is a part of our great concrete industry, I hope you see the importance of the CIM program and want to help it succeed. If you have, or know of someone that has a young person that may be graduating high school and considering college, let them know about the CIM program and the great opportunities that a CIM degree affords. Once again, I encourage you to read this report in its entirety. There is much to absorb about how the NSC, local Patrons and program universities are "advancing the concrete industry by degrees."

Sincerely,

**Eugene Martineau**

Executive Director, CIM National Steering Committee

## MESSAGE FROM THE CHAIRMAN OF THE BOARD



IT IS WONDERFUL TO BE CELEBRATING the 22nd year since the founding of the Concrete Industry Management Program! To say it has been a success is perhaps an understatement. Our graduates are a testament to the benefit to the concrete industry with more than 1,000 of them contributing in some way. Please feel free to share this report with others who are willing to exhibit commitment to the CIM program.

We would be remiss if we did not credit the incredible personnel who have served in leadership roles at their perspective universities. At Texas State University, Dr. W. James Wilde, P.E. has been named the new program director and there is every reason to believe that he will take CIM to the next level. Middle Tennessee State University's, Dr. Heather Brown has recently been named one of Concrete Construction Magazine's 2017 Most Influential People in the concrete construction industry. Dr. Mohamed Mahgoub, program director of New Jersey Institute of Technology's CIM program was presented with the 2017 Robert W. Van Houten Award for Teaching Excellence. Doug Guerrero was awarded an honorary Doctor of Humane Letters during commencement ceremonies at California State University at Chico, recognizing him for his extraordinary dedication and service to the CIM program and its students, as well as his leadership on the University Foundation Board of Governors.

Heartfelt gratitude goes out to each of the committee chairs from the CIM NSC who work tirelessly to assure the continuity and success of the CIM Program.

**Education** – Dr. Rex Cottle (Trinity Industries). Each year, this committee reviews strategic plans from each university and monitors the curriculum, objectives and outcomes. The committee also facilitates sharing of best practices among the four programs.

**Finance** – Nicole Maher (National Ready Mix Concrete Association). Responsibilities for providing leadership in managing the financial assets of the steering committee falls on this committee. Assuring that the generous financial support provided by industry partners is utilized in the best possible ways is also the responsibility of this committee.

**Long-range planning** – Alan Nedza (BASF). At a meeting

in Denver, Colorado, Alan expertly led the steering committee through a process to update the CIM NSC Long Range Plan. His committee provided a clear and concise path to future growth and expansion.

**Marketing** – Brian Gallagher (O'Neal). The CIM NSC had a booth at the 2017 CONEXPO-CON/AGG show in Las Vegas. An advertising campaign was also launched focusing on reaching the entire concrete industry with information about the CIM Program.

**Membership** – Steve Cox (Command Alcon). This newly created committee is charged with recruiting companies and associations from the concrete industry to serve on the NSC.

**Auction** – Mike Philipps (Sandler Training).

The 2017 CIM Auction at the World of Concrete raised \$875,000. These funds are primarily used for scholarships and financial support as matching funds along with local Patron groups at each of the four universities with CIM programs.

And of course, I would be remiss if I didn't recognize the tireless efforts of our Executive Director, Gene Martineau, who had the vision to start the CIM program and to assure its continued success.

Thank you also to all of our supporters including Patrons groups, the concrete industry, universities and faculty and individual donors. Without your commitment to CIM, we would not be able to provide scholarships, internships, field trips and other learning experiences and a pipeline from students getting a college degree to a job.

Without a doubt, the CIM program will continue to be mutually beneficial for young people and for the concrete industry.

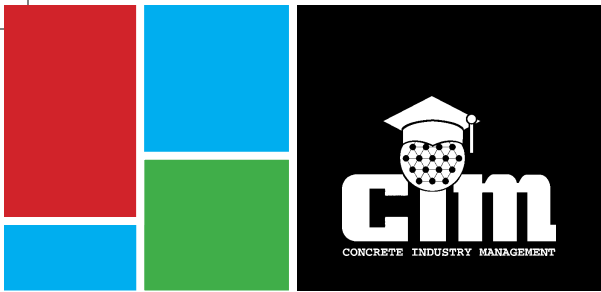
Sincerely,

**Wally Johnson**

Chairman, CIM National Steering Committee







## EDUCATION COMMITTEE REPORT



**DR. REX COTTLE**

**Chairman**  
Education  
Committee

THE EDUCATION COMMITTEE focused on assisting the CIM programs with recruiting and developing students to become future leaders in the concrete industry. With a growing demand for CIM graduates, our programs have enhanced their student recruiting efforts. The National Steering Committee (NSC) and the local Patrons have continued to provide matching funds for scholarships to increase the number of majors in the CIM programs. The Education Committee monitors how the funds are utilized and suggests ways to allocate them effectively.

The Concrete Preservation Institute (CPI) is sponsoring military personnel who are ending their service commitment to assist in concrete repair projects at National Park Services at Alcatraz and Pearl Harbor. Given their strong work ethic, dedication to excellence and “can do” spirit, veterans have the experience and attitude essential for successful careers in the concrete industry. CIM programs are investigating ways to attract these veterans into our programs. Middle Tennessee State University’s (MTSU) CIM program will conduct a pilot program providing work experience credit to candidates from CPI projects who enter its program.

The Education Committee is working with the Association of Technology, Management and Applied Engineering (ATMAE) to determine if the entire CIM program (NSC, Patrons and CIM program universities) can effectively transition our industry accreditation requirements into ATMAE while retaining the original CIM goals and objectives. These discussions will continue in the coming year.

The NSC sponsored a summer faculty retreat for CIM faculty from our four universities. The objectives were to review the CIM core courses and share best practices. Several action items came out of the retreat: (1) create a Dropbox account to share lecture notes, course syllabi and research, (2) determine how best to develop the learning objectives updated by the Strategic Planning Committee of the NSC, (3) assess how MTSU’s pilot program with veterans working in the CPI projects (mentioned above) can be implemented at the other universities, (4) develop a strategy for recruiting graduates from community colleges into CIM programs, and (5) MTSU will assist other CIM programs in the fall of 2017 to implement an individual capstone course. This course will allow each student to integrate the concrete and business knowledge she/he has obtained from the required CIM curriculum.

The concept of a CIM Journal continues to evolve. This would enable academic scholars and business leaders to share research on relevant management issues facing the concrete industry. The Education Committee is working with a publisher to create this unique forum.

The CIM programs are growing in majors and in graduates. Another cohort of students is starting in the CIM MBA program at MTSU. Scholarship support is increasing. It is an exciting time to be a part of the CIM program that is changing lives one degree at a time!



## FINANCE COMMITTEE REPORT



WE ARE PLEASED TO REPORT THAT DURING the 2016-2017 fiscal year, The National Steering Committee (NSC) enjoyed another highly successful fundraising year. Revenues for the fourth straight year reached a new record level of \$966,800. This milestone was achieved due to the success of our World of Concrete (WOC) auction and ongoing industry association and foundation sponsor support.

On the expense side of the ledger, we recorded record expenditures. While taken at face value, this statement might be a cause for concern. However, there is no reason to wonder if the NSC board has strayed from its historically fiscal conservative management of expenses. Of the record \$1,047,830 in total expenses, \$821,000 was distributed to the four participating CIM university programs. The remaining \$226,000 included \$116,000 for marketing and auction expenses and \$110,000 for normal operating expenses which were at or below budget.

Due to the historically fiscally conservative mode of operation of the NSC, a reasonable level of reserve funds have been amassed over the past several years. Consequently, the NSC Board of Directors was comfortable in approving a budget that included ongoing support payments to the four CIM programs of \$400,000, and an additional \$200,000 for new student scholarships. The annual \$100,000 per program is to support the unique aspects of the CIM

program that include students, program directors and faculty travel and expenses to attend and participate in numerous industry-related sponsored events such as WOC. This has proven to be very valuable in exposing students to the multitude of opportunities that exist in all aspects of the concrete industry.

In the second half of our fiscal year, California State University-Chico developed a plan to significantly expand their concrete laboratory. The university approached the NSC and inquired whether it would consider funding a portion of this project. After a formal presentation at the NSC's spring board meeting and with an agreement that the NSC contribution would be matched by both the local Patrons and the university, the NSC board approved a \$200,000 expenditure. This was a first ever capital contribution to one of our program universities. The board recognized that this was a departure from previous policy, but because of the agreed partnering of both the Chico Patrons and the university and the potential benefit to CIM, it was warranted. Future similar capital projects, in order to be considered, would have to meet the same funding formula. This unbudgeted expenditure resulted in full year expenses exceeding revenues by \$80,544. However, due to the NSC's strong reserve position and with the continued success of the auction and sponsor support, the NSC believes that it will be able to continue to help support and grow the CIM program.

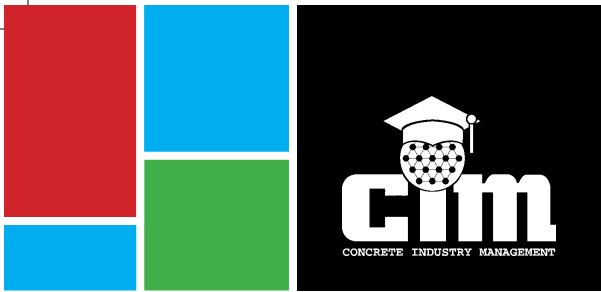


**NICOLE  
MAHER**

**Chairman**  
*Finance Committee*

**The following are financial highlights for 2016-2017 fiscal year ending June 30, 2017.**

	BUDGET	ACTUAL
Total Revenues	\$908,000	\$966,800
Total Expenses	\$884,030	\$847,830
Non Budgeted Expense		\$200,000
Increase/Decrease in Cash	\$23,970	(\$80,544)
Audited Equity 6/30/16		\$1,872,837
Audited Equity 6/30/17		\$1,792,293



## LONG-RANGE PLANNING COMMITTEE REPORT



**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.

During 2017, we held a special Long-Range Planning meeting to review the overall plan, the vision, the mission and the strategic goals for the CIM program. Through this process, we have slightly adjusted the vision and have streamlined the strategic goals going from six to five. Our new vision and five strategic goals that will drive our future actions are as follows:

### Our Vision

- To be a resource to provide the concrete industry with professional leaders for tomorrow.
- Advancing the concrete industry by degrees.

### Key Strategic Goals

- **Goal 1:** Monitor the needs of the concrete industry and adapt the scope of the Concrete Industry Management program curriculum, network of institutions and local Patrons to meet those needs.
- **Goal 2:** Preserve, protect and enhance the value and integrity of the Concrete Industry Management brand.
- **Goal 3:** Promote the use of the Concrete Industry Management university network to conduct coordinated research and collaborative activities that benefit both the Concrete Industry Management programs and the concrete industry.
- **Goal 4:** Facilitate the generation and appropriate allocation of National Steering Committee (NSC) and Patron funds in support of the Concrete Industry Management program.
- **Goal 5:** Ensure the NSC is configured and operated to lead and provide for the continued success of the Concrete Industry Management program.

For 2018, the committee will focus on increasing the number of enrolled students into all of our CIM programs and to aggressively pursue a new certified CIM program located in the Great Lakes region.





## MARKETING COMMITTEE REPORT



Each year, the CIM Marketing Committee focuses on a few key areas to promote the CIM programs and build the CIM brand.

The Committee employed several strategies and tactics to increase awareness of the CIM program. Our key goals were directed at helping educate prospective students and influencers about educational and career opportunities in the concrete industry. The CIM marketing program was developed 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:

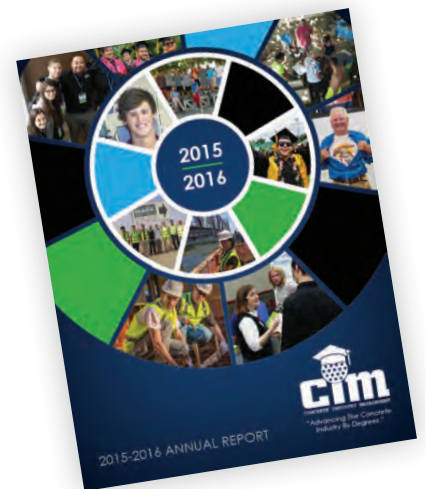
- **Advertising:** During the fall of 2016, we began an advertising program with Construction Executive magazine. Our efforts included a combination of print, digital and content marketing. This effort helped us gain valuable exposure to the entire construction industry throughout the year. New print and web ads helped promote the CIM and 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 2017 CIM Auction was again a tremendous success. The CIM Marketing Committee took an aggressive approach to promoting the auction and highlighting several unique items. The 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 and Promotional Materials:** The committee produced promotional materials to support the CIM brand, including brochures, graphics and other materials. The committee

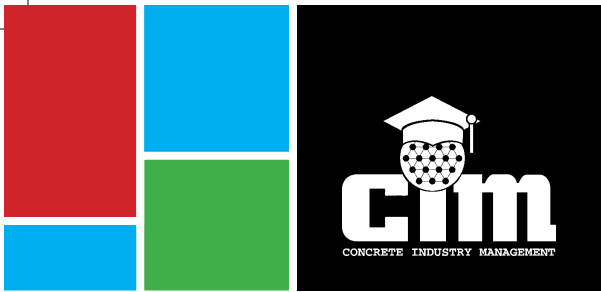
also produces the Annual Report and Executive Summary, developed to inform, educate and update stakeholders on national and institutional activities.

- **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 and Trade Shows:** CIM had exposure at several events in 2016-2017, including World of Concrete, CONEXPO-CON/AGG, NRMCA meetings, ConcreteWorks, ACI's convention, ICRI's annual meeting and several others events.
- **Public Relations:** Public relations is an important part of our marketing approach and is focused on promoting CIM programs to the industry, 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 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 6 press releases and placement of more than 39 articles in industry publications such as Concrete Construction, Concrete Producer, Concrete Business Owner, Concrete Décor, Heavy Equipment Guide and Better Roads. Online coverage included Aggregates Manager, Concrete Construction, Concrete Products, Equipment Journal, Equipment Today and many others.
- **Video Production:** We developed and produced several videos for the 2017 CIM auction that helped promote our "Call for Donations," specific items that were donated and the auction itself.



**BRIAN  
GALLAGHER**  
*Chairman  
Marketing  
Committee*





## AUCTION COMMITTEE REPORT



**MICHAEL  
PHILIPPS**

**Chairman**  
*Auction Committee*

THE 2017 CONCRETE INDUSTRY Management Auction was a tremendous success. The annual auction was held in conjunction with the World of Concrete (WOC) in Las Vegas on January 18, 2017. Gross revenue from the event were in excess of \$875,000. The CIM Auction Committee consists of more than 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 ensure a successful auction. Once the 2017 auction was completed, the committee was hard at work on the 2018 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 percent of the live auction proceeds come from online bidders, a percentage that continues to increase each year.

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 Liquid Stone Concrete from Burleson, Texas.

Again this year, NSC partnered with GiveSmart — a user-friendly bidding technology service providing customized auction and event solutions primarily for nonprofit 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. 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 and travel packages.

## EXECUTIVE MBA DEGREE IN CIM PROGRAM UPDATE



MIDDLE TENNESSEE STATE UNIVERSITY (MTSU) proudly graduated the third cohort of the CIM MBA program on May 5, 2017. Six graduates from all areas of the country successfully completed the requirements, and four of the six traveled to MTSU to walk across the stage. The graduates are:

- Miguel Morales, Arthur J. Gallagher & Co, Texas
- Erik Wagner, Structural Technologies, Pennsylvania
- James Hopper, Vulcan Materials, Georgia
- Adam Wallace, Schwing America, Minnesota
- Tim Ketavongsa, Delaware Valley Concrete, Pennsylvania
- Matthew Arnold, Triple C Concrete, Texas.

Members of our 2016-17 cohort say they are excited to be part of an elite group of CIM MBA graduates, but they also want the industry to know how valuable of an opportunity this was for them and to ensure more industry professionals connect with this



program. They offered to talk to prospective students thinking about how to juggle work life, personal life and a distance-learning 15-month MBA program.

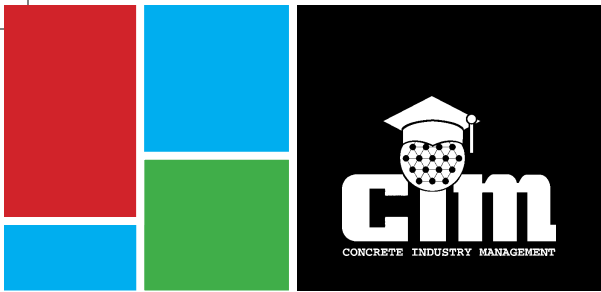
MTSU is continuing to recruit for the next CIM Executive MBA class, which starts January 2018. This program has proven valuable for the advancement of the students' business knowledge and current strategy principles, which they are able to apply to real-world scenarios quickly.



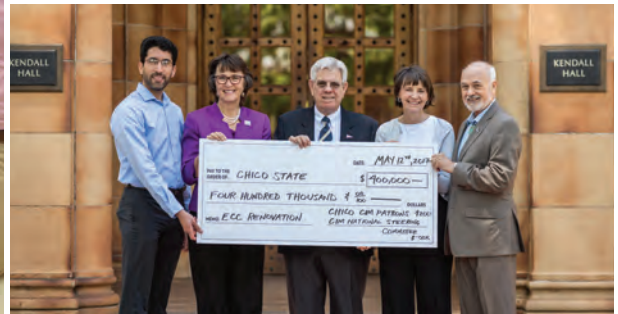
**DR. HEATHER BROWN**  
**School of Concrete and Construction Management**  
**Director/Professor**  
**MTSU CIM**







## ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017



College of Engineering, Computer Science, and Construction  
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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

#### Program Enrollment:

Fall 2016: 105  
Spring 2017: 112

#### Graduates:

Fall 2016: 3  
Spring 2017: 5  
Total graduates to date: 108

### INTERNSHIPS

35 students had internships for the 2016-2017 school year

### EMPLOYMENT

All graduating seniors had jobs at the time of graduation.

### STAFF/FACULTY INFORMATION

- Dr. Mohammed Albahtiti, Ph.D., joined the CIM program at Chico State in spring 2017.

# ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017



## PATRONS' GROUPS

- Doug Guerrero is the lead of the Chico State CIM Patrons' group.
- The Chico State CIM program had more than 40 active members of the Patrons' Group for 2016-2017.
- New Patrons members: The Chico CIM local Patrons group welcomes two new members: Folsom Ready Mix and Penhall Company.
- Patrons' Group met in September 2016 and April 2017.
- Patrons' Group supported the CIM program through field trips, guest lectures, recruitment activities, internship opportunities and student scholarships.

## AWARDS, SCHOLARSHIPS, GRANTS AND RECOGNITION

- Claudia Martinez: Women in Mining Scholarship, International Concrete Repair Institute (ICRI) Scholarship.
- Joanne O'Hara: Lt. Robert Merton Rawlins Merit Award, Valley Contractors Exchange Scholarship, ICRI Scholarship.
- German Fuentes: Arthur Maher Scholarship.
- Damien Bonis: American Concrete Institute Scholarship (ACI Foundation Richard D. Stehly Memorial Scholarship).
- Feraidon Ataie received the following grants:
  - "Improving Alkali Activated Slag Properties by Using Rice Straw Ash"; funded by California Rice Research Board; \$15,042; July 2017-June 2018.
  - "Improving Alkali Activated Metakaolin Properties by Using Rice Straw Ash"; funded by CSU-Agricultural Research Institute; \$29,440; July 2017-June 2019.
- 2016 ACI Outstanding University.
- CIM local Patrons' founder and Chair Doug Guerrero was awarded an honorary degree by Chico State.

## INDUSTRY RELATIONS

- World of Concrete 2017 in Las Vegas; 12 students, two faculty members, one college dean and four staff members; January 2017.
- American Society of Concrete Contractors (ASCC) Annual Convention in Dallas; six students and one faculty member; fall 2016.
- National Ready Mixed Concrete Association's (NRMCA) ConcreteWorks in San Antonio; four students and one faculty member; fall 2016.
- National Precast Concrete Association's The Precast Show in Nashville, Tenn.; eight students and one faculty member; spring 2017.

- Dr. Albahtiti attended the Portland Cement Association Education Foundation Professors' Workshop in Skokie, Ill., July 2017.

## PUBLICATIONS AND PRESENTATIONS

- German Fuentes, a CIM senior, presented a poster about his research, "Utilization of Rice Straw Fibers in Concrete," during the CSU-Agricultural Research Institute Showcase at Cal Poly-Pomona, Pomona, Calif., November 2016.
- Feraidon F. Ataie presented his research project, "Utilization of Rice Straw Fibers in Concrete," during the ACI Convention, spring 2017.
- Feraidon F. Ataie developed and conducted a one-day workshop on volumetric concrete production at World of Concrete in Las Vegas, January 2017. The workshop was well-attended by volumetric concrete producers.

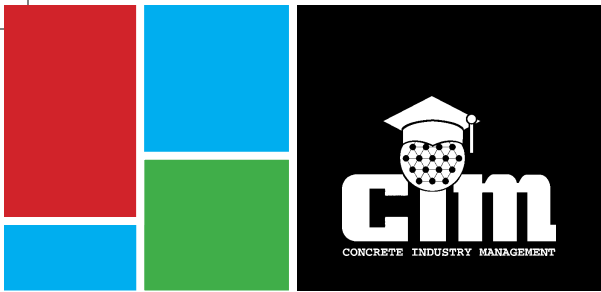
## CURRICULUM

### Updates to Curriculum:

- The CIM program at Chico State added a new class in advanced concrete technology.
- Lab renovation: A \$3 million lab renovation project began this summer in the College of Engineering. As a result of this project, the CIM program at Chico State will be getting new laboratory space. The program's industry supporters raised \$400,000 for the project, out of which \$200,000 was contributed by our local Patrons and \$200,000 was donated by the National Steering Committee.







## ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017

### NETWORKING AND OUTREACH

- CIM Patron Student Social Event; more than 50 students attended, and most Patrons did as well.
- We visited more than 25 high schools to promote the CIM program via presentations, booths and activities.
- The Alumni BBQ, with more than 50 students and alumni in attendance, took place in April 2017.

### VOLUNTEER SERVICE

- The Women in Concrete & Construction club participated in Chico State Society of Women Engineers' (SWE) Imagineer Day and Chico State's STEM Academy. Both events, which expose grade school students to science, technology, engineering and math fields through hands-on activities, took place during the spring semester.

### FINANCIAL INFORMATION

#### Chico State Income/Expenses 2016-2017

INCOME	Local Patrons	\$120,000
	National Steering Committee	\$150,000
	<b>Total Income</b>	<b>\$270,000</b>

EXPENSES	Travel	\$80,000
	Scholarships	\$120,000
	Other Expenses	\$70,000
	<b>Total Expenses</b>	<b>\$270,000</b>





# ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017



## MIDDLE TENNESSEE STATE UNIVERSITY

1301 East Main Street • Murfreesboro, TN 37132 • (615) 898-2300

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:

Fall 2016: 173  
Spring 2017: 167

#### Graduates:

Fall 2016: 19 graduates  
Spring 2017: 21 graduates  
Summer 2017: 5 graduates  
Total graduates to date: 877

### INTERNSHIPS

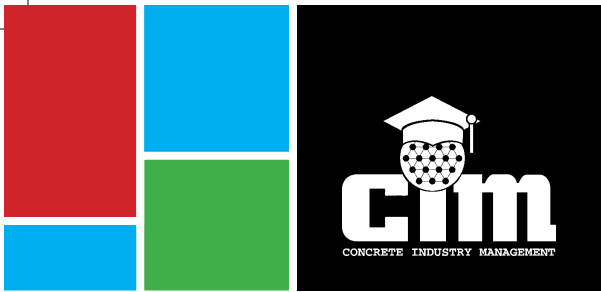
40 students had internships for the 2016-2017 school year.

### EMPLOYMENT

100 percent of graduating seniors had jobs within three months of graduation.

### STAFF/FACULTY INFORMATION

- Kevin Overall became CIM Laboratory manager, September 2016.
- Brittany Shelton moved into a new position as event coordinator in November 2016
- Ayaz Ahmad is no longer with MTSU CIM (as of August 2017).



## ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017

### FACULTY/STAFF ASSOCIATION AFFILIATIONS

- Dr. Marcus Knight, Ph.D., Masonry Institute of Tennessee.
- Dr. Heather J. Brown, Ph.D., American Society of Concrete Contractors (ASCC), Emerging Leaders Committee and American Concrete Institute (ACI), Fellow and Committee Member, Faculty Co-Chair.
- Jon Huddleston, ACI, Faculty Co-Chair.
- Ayaz Ahmed, Precast Concrete Institute (PCI) and National Precast Concrete Association (NPCA), Member.

### PATRONS' GROUPS

- Nick Edwards, Sequatchie Concrete, is the lead of the MTSU CIM Patrons' Group
- The MTSU CIM program had 72 active members of the Patrons' Group for 2016-2017

#### Patrons' Group Activities

- Classroom visits.
- Student mentors.
- CIM homecoming event and auction with more than 30 CIM students and alumni attending.
- CIM Skeet Shoot with students and alumni on Oct. 14, 2016—11 teams, five field sponsorships and luncheon; \$16,200 raised.
- CIM Golf Tournament on May 3, 2017—two flights and 52 teams plus sponsorships; \$98,200 raised.
- Student worker funds.
- Scholarships.
- Research assistance.

#### Patrons' Group Meetings

- Patrons Work Session and Scholarship Luncheon—Aug. 19, 2016.
- Patrons Meeting, Skeet Shoot and Auction—Oct. 14, 2016.
- Alumni Homecoming Tailgate—Oct. 15, 2016.
- Patrons Meeting at World of Concrete—Jan. 18, 2017.
- Patrons Board Meeting Conference Call—March 17, 2017.
- Patrons Meeting and Senior Dinner—May 2, 2017.
- Annual CIM Golf Tournament—May 3, 2017.
- CIM Patrons Board Meeting to discuss fundraising—May 25, 2017.

### ALUMNI ACHIEVEMENTS

- Reggie Polk, class of 2003; Polk is in his second season of filming with HGTV's "Listed Sisters," in which he is the featured contractor performing renovations on properties.
- Brandy Anderson and Christopher Anderson, class of 2006; Coffee County News: "Where the Journey Leads Featuring

Brandy & Christopher Anderson," April 8, 2017.

- Ben Petzinger, class of 2003; served as project manager for a 24-story office tower project that was honored with a 2017 Excellence in Concrete Award for innovative use of concrete by the Intermountain Chapter of ACI in March 2017.
- Jon Huddleston, class of 2006; raised nearly \$2,000 for childhood cancer research by shaving his head for St. Baldrick's Foundation in March 2017.
- De'Kaleigha "Day-Day" Wells, class of 2015; named Miss Highbury London 2016-2017; named Miss California Power Woman 2017 and won Miss Personality at the international competition in July 2017.
- Paul Ozinga, class of 2006; expanded operations into the Miami market with the opening of a new plant in February 2017.

### AWARDS, SCHOLARSHIPS AND GRANTS

- Tennessee Concrete Association Scholarship: Jacob Lannom and Esteban Lelli.
- Southeast Portland Cement Association Scholarship: Jeffrey Hughes, Dalton Mason, Connor Lane and Jaclyn Streeter.
- William Avery Scholarship: Chelsey Ellington.
- Sika Scholarship: Rebecca Ingalls and Tia Kortman.
- FRCA Scholarship: Christian Pena, Travis Chadwick and Lucas Rogers.
- Earl Keese Scholarship: Andrew Symonds.
- Elton Cook Scholarship: Dustin Heaton and Lucas Rogers.
- Lehigh Cement Scholarship: Brent Williamson and Bradley Warf.
- Jim Scott Memorial Scholarship: Hayden Bilyeu.
- BASF Scholarship: Jordan Fischer.
- GRMCA Scholarship: Robert Bradley.
- Concrete Supply Scholarship: Peter Rolden.
- Homer Woods Davenport Scholarship: David Greene.
- NSC Industry Scholarship: Alexis Bush, Rielly Bethmann, Joshua Brinegar, Jashield George, Jeffrey Hughes, Matthew Stephenson, Samuel Stewart, Taylor Northern, Connor Lane, Daulton Mason, Vince Gray, Jake Langan, McKinley Wallace, Andrew Symonds, Nicholas Brownlow, Dylan Brown, Jonathan Howland and Devan Whitworth.
- Total grant dollars requested: \$5,004,771
- Total grant dollars received: \$4,771

### Recognitions

- Recognized for having the most study abroad trips in the College of Basic & Applied Sciences.
- MTSU announced the launch of the School of Concrete and Construction (School of CCM) as a new academic unit under Dr. Brown in December 2016
- Dr. Brown was named 2017 Most Influential in Concrete

# ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017



Construction, in the January 2017 issue of Concrete Construction magazine. She was one of four people given this honor, for the work she did in 2016.

- Program awareness efforts covered by Daily News Journal: “Blackman Collegiate Academy students visit MTSU,” February 2, 2017.
- Dr. Brown was named a Trailblazer Honoree at MTSU for 2017 National Women’s History Month in March 2017.
- Hosted Speed Interviewing Day in March 2017.
- Participated in MTSU’s fifth annual ACE Mentoring Camp Program.
- Received additional university funding to help renovate space for new faculty offices and classrooms including a 24-seat computer lab.
- Nicole Green was certified as a professional career development facilitator.
- Dr. Heather Brown was nominated and awarded the Association of General Contractor’s Iris Award.

## RESEARCH AND STUDENT PROJECTS

- Continued work on a Tennessee Department of Transportation (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 a TDOT grant investigating precast corrosion.
- Continued work on a Tennessee Valley Authority-URS Corporation grant investigating the beneficial reuse of fly ash.
- Continued research on the effects of fibrillated fiber on concrete with the FiberMesh company.
- Continued research with ASCC on concrete wall surface imperfections.
- TDOT project: “Acceptable Chloride Ion Limit in Concrete.”
- LP Building Products water uptake study with two students and three faculty members, December 2016.

## INDUSTRY RELATIONS

- ASCC 2016 Annual Conference in Minneapolis; five students and one chaperone; Sept. 15-18, 2016.
- National Ready Mixed Concrete Association (NRMCA) Annual Convention in Nashville, Tenn.; nine students and two chaperones worked the show while another nine students plus one staff chaperone attended for a day; Sept. 18-20, 2016.
- Command Alkon Conference in Atlanta; four students and one faculty member; Oct. 31-Nov. 1, 2016.
- CIM 4060, Management of Concrete Products: Production Facilities class field trip to Buzzi Unicem Cement Plant in Chattanooga, Tenn.; 24 students, one staff chaperone and two faculty chaperones; Dec. 2, 2016.
- School of CCM Rollout Reception at Ascend Amphitheatre

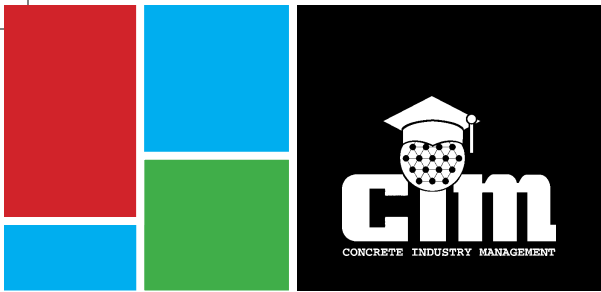
with approximately 50 industry professionals and alumni in attendance; Dec. 8, 2016.

- Presented to more than 75 fourth-graders at Reeves Rogers Elementary on concrete basics and set up materials for students to make a concrete cube for testing; Jan. 12, 2017.
- Faculty and staff served as the judges for the Tennessee Concrete Association’s Decorative Award; Jan. 12, 2017.
- Faculty and staff served as the judges for the Fiber Reinforced Concrete Association’s Innovative Fiber Project of the Year; Jan. 12, 2017.
- World of Concrete in Las Vegas, during which designated students also presented their internship or research experiences to industry in the CIM Presentation Competition; 21 students, one faculty, two staff; Jan. 16-20, 2017.
- NPCA’s The Precast Show in Cleveland; five students and one faculty chaperone; March 2-4, 2017.
- NRMCA/ConExpo-Conn/Agg in Las Vegas; eight students, one staff member, one faculty; March 4-9, 2017.
- Study-abroad trip for Constructionarium in Bircham Newton, England, to participate in a construction project from conception and bid to completion and turnover to the client. This year’s students constructed a scaled-down version of the Brewery Warf footbridge located in Leeds, England. Two faculty members chaperoned 13 students (11 CIM and two CM); March 31-April 8, 2017.
- Participated in the Tennessee Concrete Association’s Social Media Hack in Knoxville along with other state-association directors; one staff member; April 19-20, 2017.
- Study-abroad trip to Sosua, Dominican Republic; nine students, two staff chaperones and one faculty; May 9-19, 2017.
- Field trip with high school interns and CIM summer interns to watch the construction of a local home built with insulating concrete forms; June 29, 20/17.

## 10 industry speakers between August 2016 and May 2017:

- Chris Davenport, Barnes Industrial Group.
- Hayden Bilyeu, Collier Engineering.
- Jessie Boone, Southeast Cement Association.
- Steve Grant, Lifestyles Communities.
- Reggie Polk, Polk & Associates.
- Natalie Martin, Stalite.
- Joey Bell, Active Minerals.
- Andreas Tselibidis, BASF.
- Will Phelps, Lithko Contracting.





## ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017

### PUBLICATIONS AND PRESENTATIONS

- **Dr. Zhifu Yang**, Ph.D.; “Developing Mortar Mix for Evaluating Bond of Seven-Wire Steel Prestressing Strand”; Insteel Wire Products, August-December 2016.
- **Dr. Zhifu Yang** and **Dr. Heather Brown**; “Performance Evaluation of Grout Materials for Connecting Precast Concrete Bridge Deck Panels”; final report submitted to Tennessee Department of Transportation; January 2017, page 163.
- **Dr. Zhifu Yang**, **Jon Huddleston** and **Dr. Heather Brown**; “Effects of Wood Ash on Properties of Concrete and Flowable Fill”; 2016 International Conference on Cement and Concrete Technology (CCT 2016); Suzhou, China; July 25-27, 2016.
- **Ronald L. Kozikowski**, **Dr. Heather Brown**, **Ward Malisch**, Ph.D., P.E., and **Bruce A. Suprenant**, Ph.D., P.E., FACI; “Effect of Cold Curing on Concrete”; Concrete International, Volume 38, Issue 8, August 2016.
- **Dr. Zhifu Yang**, **Jon Huddleston** and **Dr. Heather Brown**; “Effects of Wood Ash on Properties of Concrete and Flowable Fill”; 2016 International Conference on Cement and Concrete Technology (CCT 2016); Suzhou, China; July 25-27, 2016.
- **Dr. Marcus Knight**; “Use of Thin Overlays on Tennessee Bridges at the Mid-Continent Transportation Research Symposium”; Madison, Wis.; October 2016.
- **Dr. Zhifu Yang**, **Dr. Heather Brown**, **Jon Huddleston** and **Wayne Seger**, P.E.; “Performance Evaluation of Rapid-Set Patching Materials for Concrete Bridges”; PCI Committee on Bridges; Rosemont, Ill.; Oct. 13-15, 2016.
- **Dr. Brown** mentored **Darius Johnson**, **Cody Martin** and **Noah Hawkins** to present the poster “Deicer on Pervious Concrete Research” during MTSU Scholars Week and CBAS Scholars Day.
- **Dr. Zhifu Yang**, **Dr. Heather Brown**, **Jon Huddleston** and **Wayne Seger**, P.E.; “Effects of Aggregate Extension on Properties of Rapid-Set Prepackaged Patching Materials”; International Concrete Repair Institute 2017 Spring Convention; Montreal; March 15-17, 2017.
- **Ayaz Ahmed**; “Lean Concepts in the Concrete Masonry Industry”; National Concrete Masonry Association membership.
- **Ayaz Ahmed**; “Building a Lean Culture in the Precast Organization”; NPCA membership.
- Additional presentations by **Dr. Heather Brown**:
  - Exchange Club of Murfreesboro, August 2016.
  - Reeves Rogers Elementary School concrete presentation, September 2016.
  - “Young at Heart” (about CIM), First Baptist Church, October 2016.
  - “Out of the Blue,” TV Spot, November 2016.
  - “Flowable Fill” with Griggs and Maloney, Inc., Stormwater Association, November 2016.
  - Command Alkon presentation, December 2016.

- AEC Power Women Panel, January 2017.
- Pervious Concrete presentation, Jackson, Tenn., June 2017.
- “Bug Holes are Beautiful,” Concrete Foundations Association, July 2017.
- “Bug Holes are Beautiful,” Arkansas Ready Mixed Concrete Association, August 2017.
- McMinnville Rotary Club presentation, August 2017.

### Reviewed Publications by CIM Faculty

- **Dr. Heather Brown**, “Benefits of Internal Curing Pervious Concrete using Lightweight Aggregates,” Construction & Building Materials.
- **Dr. Heather Brown**, “Heavy Metal Removal Capacity of Individual Components of Permeable Reactive Concrete,” Journal of Water Resource and Protection (JWARP).
- **Dr. Heather Brown**, “Surface Runoff Dynamics of Permeable Pavements and Grazing Land in Low Mountain Ranges, Water,” authors Peter Chiffard, Dennis Moulding, Jann-Thorben Petri, Julian J. Zemke and Martin Reiss.
- **Dr. Heather Brown**, “Enhancing Mechanical Properties of Pervious Concrete Using Carbon Fiber Composite Reinforcement,” Journal of Materials in Civil Engineering.
- **Dr. Heather Brown**, Gygi Von Weiss Scholarship Review Board.
- **Dr. Heather Brown**, ASTM Bryant Mather Scholarship Review Board.
- **Dr. Heather Brown**, ACI Fellowship/Scholarship Review Board.

### CURRICULUM

- 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, with Dr. Heather Brown as the director of the school.
- CIM Internship Course, CIM 3300, has been expanded to be more flexible to students, giving them three, six or nine credit hours for their 200, 400 or 600 working hours, respectively.
- Implemented a core curriculum for all majors within the School of Concrete and Construction Management.

### Student Projects

- Elephant Armor sidewalk repair demonstration, **Dr. Brown**, **Kevin Overall** and three students, spring 2017.
- Campus dumpster pads, **Jon Huddleston** and CIM 3050 class, fall 2016.
- Campus bicycle pads, **Jon Huddleston** and CIM 3050 class, spring 2017.
- MTSU Horse Farm sheds, **Kevin Overall** and three students, summer 2017.

# ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017



## JOB POSTINGS

Job postings emailed to the department in 2016-2017

	Part time	Internship	Full time	Total
<b>Total number of positions</b>	22	67	425	514
<b>Within the Southeast</b>	22 (100%)	50 (74.6%)	237 (55.8%)	309 (60.1%)
<b>Within the state of Tennessee</b>	22 (100%)	34 (50.7%)	112 (26.4%)	168 (32.7%)

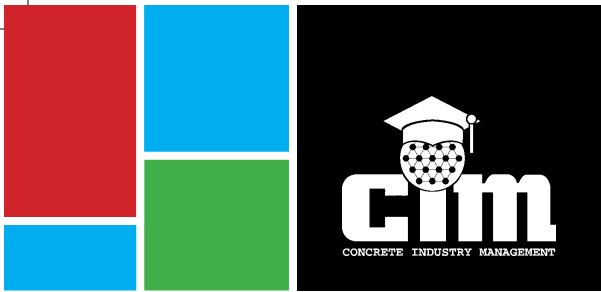
## RECRUITMENT

- 67 individual employers made 87 total visits to MTSU to recruit.
- 13 socials were hosted by 12 different companies for CIM students.
- 36 companies held 38 interview sessions on campus.
- 105 traditional interviews were held between companies and students on campus with another 893 six-minute interviews between CIM majors and employers during the Speed Interviewing Event.

## NETWORKING AND OUTREACH

Date	Name of Event and Attendance
9/29/16	Donley's social – 30 students at social, 6 students interviewed
10/4/16	Argos social – 25 students at social, 9 students interviewed
10/4/16	Land Development 1 marathon – 1 student at event
10/6/16	Batten & Shaw social – 20 students at social
10/20/16	Baker Concrete social – 29 students at social, 6 students interviewed
10/21/16	Resume workshop – 8 students at event
10/24/16	Networking tips workshop – 8 students at event
10/24/16	Purchasing and estimating marathon – 3 students at event
10/26/16	Work in CIM Lab – 8 students at event
10/26/16	US MIX interviews – 7 students interviewed
10/26/16	Networking event – 179 students at event, 41 companies participated
10/27/16	Lithko interviews – 7 students interviewed
10/27/16	Maschmeyer interviews - 7 students interviewed

10/27/16	Cemex interviews – 6 students interviewed
10/27/16	BASF interviews – 12 students interviewed
11/2/16	Turner interviews – 8 students interviewed
11/3/16	Low-impact development marathon – 3 students attended event
11/8/16	Elephant Armor demo – 7 students attended event
11/10/16	Smith's Decorative Concrete demo – 9 students attended event
11/15/16	imi interviews – 4 students interviewed
2/2/17	Baker Concrete social – 21 students attended social
2/2/17	Habitat for Humanity build – 9 students attended event
2/3/17	Habitat for Humanity, two shifts – 11 students attended event
2/6/17	Chandler Concrete social – 20 students attended social, 9 students interviewed
2/6/17	U.S. Concrete interviews – 5 students interviewed
2/9/17	Recruiting roundtable – 26 students attended event, 5 companies attended event
3/1/17	Vector Group social – 11 students attended social
3/2/17	Internship Speed Interviews (47 CIM, 12 CM) – 21 companies participated
3/2/17	Preferred Materials social – 6 students attended social
3/10/17	Home and Remodeling Show booth – 2 students attended event
3/11/17	Home and Remodeling Show booth – 2 students attended event
3/12/17	Home and Remodeling Show booth – 2 students attended event
3/14/17	Turner breakfast social – 23 students attended social
3/16/17	Ceco Concrete social – 32 students attended social, 9 students interviewed
3/22/17	Landmark Homes breakfast social – 21 students attended social
3/23/17	Allen Engineering social – 36 students attended social, 3 students interviewed
3/30/17	Maschmeyer social – 23 students attended social, 7 students interviewed
4/6/17	BASF guest lecturer – 53 students attended event



## ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017

4/10/17	Dam speaker – 6 students attended event
4/12/17	Elephant Armor demo – 5 students attended event
4/18/17	Lehigh Hanson networking time – 42 students attended event
4/18/17	Sam Safety Officials SE Conference – 2 students attended event
4/19/17	Sam Safety Officials SE Conference – 2 students attended event
4/20/17	Sam Safety Officials SE Conference – 2 students attended event
4/23/17	Habitat for Humanity—Dickson – 16 students attended event

### K-12 Student Outreach

#### 2016

8/11	Nicole Green presented to Blue Elite Tour Guides on campus, for them to “Concrete Up Your Tour” and talk about our program and projects on campus to groups of families they meet with daily.
8/31	Recruited industry professionals into the CIM Executive MBA program in the UAE during study-abroad trip; nine students and one faculty member.
9/7	Marketed programs at Rutherford County College Night.
9/15	Participated in Blackman Collegiate Academy Day on campus, making concrete coasters and teaching concrete basics to high school students.
10/4	Nicole Green oversaw alumni efforts in Chattanooga, Tenn., to staff a table for CIM to talk with prospective students attending the MTSU True Blue Tour stop.
10/5	Nicole Green oversaw alumni efforts in Atlanta to staff a table for CIM to talk with prospective students attending the MTSU True Blue Tour stop.
10/11	Nicole Green oversaw alumni efforts in Huntsville to staff a table for CIM to talk with prospective students attending the MTSU True Blue Tour stop.
10/18	Meet and present CIM facts and highlights to new admissions counselors at MTSU.
11/1	Nicole Green oversaw alumni efforts in Nashville, Tenn., to staff a table for CIM to talk with prospective students attending the MTSU True Blue Tour stop.
11/18	Nicole Green presented about concrete and CIM to two sections of University Studies for undeclared students on campus.

#### 2017

2/2	Participated in Blackman Collegiate Academy Day on campus, making concrete coasters and teaching concrete basics to high school students.
2/14	Presented on concrete basics and hosted a concrete coaster design competition for 26 Smyrna High School students in the school’s interior design class.
4/4	Hosted admissions recruiters on campus so they could learn more about the majors offered.
6/1-30	Hosted two high school seniors for a one-month internship in the CIM Laboratory.
7/16-22	The school hosted 18 high school students at a weeklong camp on MTSU’s campus, exposing the students to careers in architecture, engineering, construction and concrete.

### COMMUNITY SERVICE

- Habitat for Humanity student volunteers, fall and spring 2016/2017.
- Dr. Heather J. Brown, Salvation Army, board member and monthly volunteer.
- Dr. Heather J. Brown, Rutherford County Construction Council member.
- Dr. Heather J. Brown Cane Ridge High School Advisory Board.

### FINANCIAL INFORMATION

INCOME	Patrons	\$125,956.22
	Scholarships	\$102,626.00
	National Steering Committee	\$100,000.00
	University	\$1,282,630.00
	<b>Total Income</b>	<b>\$1,611,212.22</b>

EXPENSES	Salaries	\$1,217,614.00
	Operating	\$163,738.25
	Travel	\$87,300.56
	Scholarships	\$72,626.00
	<b>Total Expenses</b>	<b>\$1,541,278.81</b>



# ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017



Department of Engineering Technology • University Heights  
Newark, New Jersey 07102-1982 • (973) 596-8193

We are proud of our 130 years of history. We've doubled the size of our campus in the last decade, pouring millions into new research facilities giving our students the edge they need in today's marketplace.



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

## ENROLLMENT DATA

### Program Enrollment:

Total enrollment: 103

### Number of Graduates:

Fall 2016: 3

Spring 2017: 8

Summer 2017: 2

Total graduates to date: 71

## INTERNSHIPS

Students with internships in 2016-2017: 17

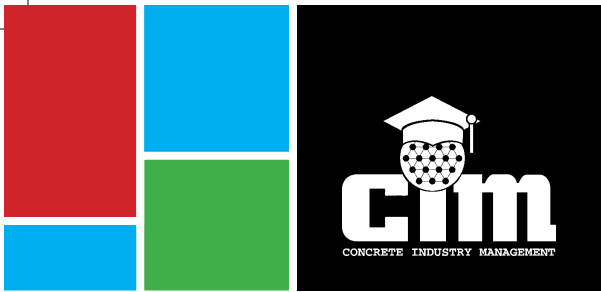
## EMPLOYMENT

Graduates with employment at time of graduation: 13

## 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 2015 to March 2018).
- Vice President, New Jersey ACI Chapter.



## ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017

- Voting Member, 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 New York Chapter.
- Member, Precast/Prestressed Concrete Institute (PCI).

### PATRONS' GROUP INVOLVEMENT

Patrons' Group involvement with the CIM program continues to be the driving force of our success. We cannot thank enough the 20 CIM Northeast local Patrons members and Patrons' head Jamie Gentoso for their unwavering support, sacrifice of time and strong investment. A few examples of Patron support are listed below.

- Offered an additional \$25,000 in scholarship money this summer.
- Hosted the annual benefit fundraising dinner, held each February. The 2017 dinner raised funds to match the \$25,000 scholarship money offered by national Patrons.
- Provided scholarship programs for CIM students: Silvi Scholarship, Sika Scholarship and CIM Northeast Patrons Endowed Scholarship.
- Made available to CIM students internships, co-ops and full-time job opportunities.

- Provided CIM students with golden opportunities to network and a chance to better understand their career potential. This happened during conferences, socials and organizational activities.
- Acted as mentors to students; kept the students engaged, and encouraged and guided them as they progressed through their studies.
- Provided supplies, donations and guidance for undergraduate concrete research projects.
- Funded approximately \$30,000 in scholarship funds.
- Hosted plant tours and field visits, held socials and offered guest lecturers.
- Organized the biannual CIM Northeast local Patrons meetings, which so far have occurred in December 2016 and May 2017.

### ALUMNI INVOLVEMENT

NJIT hosted the 2017 graduates' dinner on Aug. 3, which was attended by 25 NJIT CIM graduates. Alumni are always invited as guest speakers in all CIM classes.

### AWARDS, SCHOLARSHIPS, GRANTS AND RECOGNITION

For the third year, the Bob Weatherton Award was presented at World of Concrete to highlight the Concrete Industry Management program's success in developing young professionals. The award, with accompanying \$2,500 scholarship, was presented to two students with outstanding presentations. NJIT CIM student Daniel Regad was one of two 2017 winners.

#### NPCA 2017 Scholarship

Nikolaos Benyamin, a CIM freshman, was awarded the National Precast Concrete Association's (NPCA) 2017 Scholarship of approximately \$15,000 over four years.

#### 2017 EPDABI Concrete Beam Competition

One team from the NJIT ACI Student Chapter competed in the 32nd Annual Student Beam Competition organized by the Eastern Pennsylvania and Delaware chapter of the American Concrete Institute (EPDABI). The challenge of the competition was to design and construct a concrete beam reinforced with steel bars. The NJIT team won first place in the “highest ultimate load-to-weight ratio” category.

#### Teaching Excellence Award

Dr. Mahgoub won the prestigious 2017 Robert W. Van Houten Award for Teaching Excellence offered by the NJIT Alumni Association.



# ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017



## Third Place at International Competition

The ACI Student Chapter team placed third in the Mortar Workability Student Competition at the ACI Fall 2017 Concrete Convention and Exposition in Anaheim, Calif., Oct. 15, 2017.

## UNDERGRADUATE RESEARCH

- Total grant dollars requested: \$100,000.
- Total grant dollars received: \$60,000.

## RESEARCH AND STUDENT PROJECTS

- “Impact of Extended Mixing Time on Concrete Durability and Performance”; RMC Research and Education Foundation (\$50,000); one year.
- “Concrete Durability”; NJIT Faculty Seed Fund (\$10,000); one year.

## PROGRAM RECOGNITION

- 2016 ACI Excellent University

## INDUSTRY RELATIONS

### Student/Faculty/Staff Travel

- World of Concrete 2017 in Las Vegas; six students and one faculty member; Jan. 16-20, 2017.
- NPCA's The Precast Show/2017 PCI Convention and National Bridge Conference in Cleveland; four students and one faculty; March 1-4, 2017.
- ConExpo-Con/Agg 2017: International Construction Tradeshow in Las Vegas; five students and one staff member; March 7-11, 2017.
- 2017 ICRI Spring Convention in Montreal; six students and one staff; March 15-17, 2017.
- ACI Spring 2017 Concrete Convention and Exposition in Detroit; nine students and one faculty; March 26-30, 2017.
- National Ready Mixed Concrete Association's (NRMCA) ConcreteWorks 2017 in Grapevine, Texas; three students and one staff; Oct. 1-3, 2017.
- ACI Fall 2017 Concrete Convention and Exposition, Anaheim, Calif.; eight students and one faculty; Oct. 15-19, 2017.

### Industry-Sponsored Guest Speakers

**A total of 15 speakers participated between August 2016 and May 2017, including:**

- Michael Ciallella, Sika
- Ricardo Arocha, Weldon Materials
- Gaudi Nunez, Sika
- Zach Rich, Silvi Group
- Peter Emmons, Structural Group
- Frank Townsend, American Shotcrete Association
- Brian Goldberg, Beyond Concrete

- Tim Gillespie, Sika
- Joe Tedesco, Tedesco Concrete
- Danny Wilk, Concrete Systems, Inc.
- David Williams, Ferrara

## PUBLICATIONS AND PRESENTATIONS

- Mahgoub, M.; “Flexural Properties of Recycled Concrete”, ACI Fall 2016 Concrete Convention and Exposition; Philadelphia; Oct. 25, 2016.
- Mahgoub, M.; “Structural Health Monitoring (SHM) Using Wireless Sensor Networks (WSN)”; University of Western Ontario; London, Ontario, Canada; June 30, 2017.
- Mahgoub, M., Jamali, A. and Saadeghvaziri, M.; “Behavioral Model for Recycled Aggregate Concrete under Axial Compression”; ACI Special Publication (SP); March 3, 2017.

## CURRICULUM/SPECIAL PROJECTS

- CIM students carried out several concrete-sustainability and recycled-aggregate projects as part of their senior projects.
- Summer 2017: One CIM student spent the summer participating in a repair project at Alcatraz prison in San Francisco.

### Awarded Proposals

- “Impact of Extended Mixing Time on Concrete Durability and Performance”; Ready Mixed Concrete (RMC) Research & Education Foundation; amount: \$50,000; June 1, 2017.

### Awarded Undergraduate Proposals

- Aranda, A; “An Innovative Test Method for Estimating Fine Content of Soils in Subsurface Investigation”; sponsor: NSF I-Corps Site; amount: \$2,500; Oct. 3, 2016.
- Aguda, A. and Grant, S.; “Investigating the Use of Recycled Concrete Aggregate as Prime Ingredient in Mortar Mix Designs”; NJIT Undergraduate Research and Innovation (URI); amount: \$2,500; Oct. 18, 2016.

## Publications

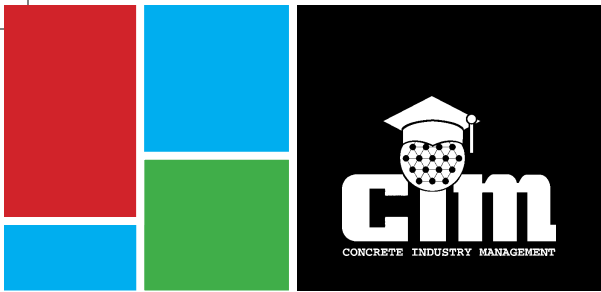
### Published Journal Papers:

- Mahgoub, M., Jamali, A. and Saadeghvaziri, M.; “Behavioral Model for Recycled Aggregate Concrete under Axial Compression”; ACI Special Publication (SP); March 3, 2017.

### Published Conference Papers:

- Mahgoub, M.; “Flexural Properties of Recycled Concrete”, ACI Fall 2016 Concrete Convention and Exposition; Philadelphia; Oct. 25, 2016.
- Mahgoub, M.; “Structural Health Monitoring (SHM) Using Wireless Sensor Networks (WSN)”; University of Western Ontario; London, Ontario, Canada; June 30, 2017.





## ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017

### Professional Presentations

- Mahgoub, M.; "Flexural Properties of Recycled Concrete"; ACI Fall 2016 Concrete Convention and Exposition; Philadelphia; Oct. 25, 2016.
- Mahgoub, M.; "90-Minute Research Project"; New Jersey ACI (NJACI) Chapter Presentation Dinner; Weehawken, N.J.; Nov. 17, 2016.
- Mahgoub, M.; "Extending the 90-Minute Rule for Ready Mixed Concrete"; American Society for Testing and Materials (ASTM) Conference; Orlando, Fla.; Dec. 6, 2016.
- Mahgoub, M.; "Can We Extend the Ready Mixed Concrete Time to 180 Minutes?"; Concrete Industry Board Morning Educational Seminar, New York City ACI Chapter; NYC; Feb. 22, 2017.
- Mahgoub, M.; "The 90-Minute Rule in Ready Mix: Time for Change?"; Eastern Pennsylvania and Delaware American Concrete Institute (NJACI) Chapter Presentation dinner; King of Prussia, Pa.; March 23, 2017.

### Student Competitions

- International Mortar Workability Competition; ACI Fall 2016 Concrete Convention and Exposition, Philadelphia; Oct. 23-27, 2016.
- International Bowling Bowl Competition; ACI Spring 2017 Concrete Convention and Exposition, Detroit; March 26-30 2017.
- Precast/Prestressed Concrete Institute's (PCI) Big Beam Competition; students worked with Northeast Precast of Millville, N.J.; June 16, 2017.

### JOB POSTINGS

**210 total positions were emailed to the department in 2016-2017:**

- 150 full-time openings, 30 part-time openings, 30 internships.
- 20 employers each made five total recruitment visits to NJIT.
- Four socials were hosted by four different companies.
- 20 employers each made five total visits to NJIT to interview students.

### NETWORKING AND OUTREACH

**During the 2016-2017 academic year, five socials were hosted by five different companies and attended by 100 students. These socials included:**

- Vulcan Materials; October 2016.
- Lithko Contracting; November 2016.
- High Company, LLC; March 2017.
- Silvi; March 2017.

### RECRUITING EVENTS

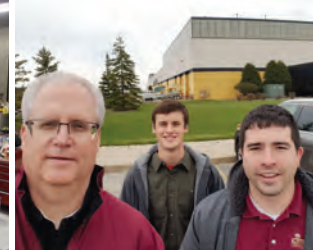
- NJIT Academic Advisor Anlee Orama and CIM students introduced the CIM program to 52 New Jersey high school students.
- NJIT hosted approximately 600 students in December 2016.
- Orama presented the CIM program to 500 students at NJIT's Educational Opportunity program during summer 2017.
- The Student Ambassador program is moving forward: Students visited high schools and community colleges to promote the CIM program.
- Orama and CIM students introduced the CIM program to high school students at NJIT Open Houses and Newark College of Engineering's Engineering Career Days twice a semester.

### FINANCIAL INFORMATION

INCOME	National Patrons	\$100,000
	National Patrons (scholarships)	\$50,000
	Local Patrons	\$50,000
	Local Patrons (scholarships, match)	\$50,000
<b>Total Income</b>		<b>\$250,000</b>

EXPENSES	Travel by program director, faculty, staff, students	\$50,000
	Guest speakers, field visits, seminars, workshops, attending local events	\$4,000
	Undergraduate research	\$20,000
	Concrete laboratory	\$20,000
	Recruitment, CIM promotion and marketing, fundraising	\$10,000
	Socials (4 per year)	\$6,000
	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)	\$80,000
<b>Total Expenses</b>		<b>\$246,500</b>

# ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017



## TEXAS STATE UNIVERSITY

*The rising STAR of Texas*

Department of Engineering Technology  
601 University Drive • San Marcos, TX 78666 • (512) 245-2137

With an enrollment of more than 36,000 Bobcats, Texas State University is the fourth-largest university in Texas and our outstanding faculty are recognized at the highest state and national levels.



**W. JAMES WILDE**  
Texas State  
Program Director

### ENROLLMENT DATA

#### Program Enrollment:

Fall 2016: 50  
Spring 2017: 47

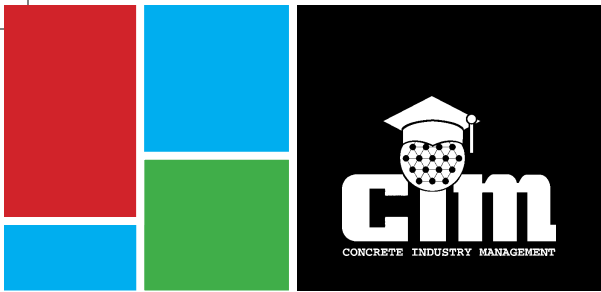
#### Number of Graduates

Fall 2016: 4  
Spring 2017: 4  
Total graduates to date: 51

The following students graduated in Dec. 2016 or May 2017:

Student	Graduation
Cole Pilgrim	Spring 2017
Tommy Bailey	Spring 2017
Jake LaLanne	Spring 2017
Robb Hunter	Spring 2017
Braden Byrd	Fall 2016
Chase Hubbert	Fall 2016
Eric Martin	Fall 2016
Landon Snider	Fall 2016





## ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017

### FACULTY ACTIVITIES

#### Professional Updates

- Dr. Yoo-Jae Kim, Ph.D., P.E., LEED AP, is taking a faculty development leave to work as a visiting researcher in the Fire Investigation, Research, Testing and Education Division at the Korea Institute of Civil Engineering and Building Technology Research (KICT) in Seoul, South Korea. The research topic is “Fire Damage Assessment of Concrete Filled Steel Tube (CFT) Columns.”
- Dr. Federico “Fred” Aguayo, Ph.D., presented at the 7th National Concrete Mixing Design Contest in Toluca, Mexico. This was a collaborative event hosted by the Mexican Institute of Cement and Concrete (IMCYC) and the Center for Innovation in Construction Technology Holcim Mexico (CITEC). The event promotes the exchange of best practices of innovation in a meeting space with companies related to the concrete industry. Dr. Aguayo presented to a group of students and professionals on his expertise in concrete durability. His presentation was entitled “The Fundamentals of Concrete Durability.”

#### Active Research

- Kim, Y.-J. (PI); “The Effects of Limestone Powder Particle Size on the Mechanical Properties and the Life Cycle Assessment of Concrete”; Texas State University Research Enhance Program (REP); \$8,000; January 2017-December 2017.
- Kim, Y.-J., (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, Minority Science and Engineering Improvement Program

(MSEIP); \$613,000; September 2014-August 2017.

- Kim, Y.-J. (Co-PI); “Improved Crack Sealant Application Methods”; Texas Department of Transportation (TxDOT) (RTI 0-6832); \$229,640; September 2014-August 2017.
- Aguayo, F. (PI); “Concrete, Aggregates, Cement Materials, and Concrete Pavements Testing and Data Collection”; Texas Department of Transportation (TxDOT) (Contract No. 46-7MTTA010); \$200,000; December 2016-November 2018.
- Aguayo, F.M. (PI) and Torres, A. (Co-PI); “Durability Testing of Sustainable High Strength Concrete”; Texas State University Research Enhancement Program (REP); amount: \$16,000; January 2017-May 2018.

#### Research Proposals

- Lee, S.-J.(PI), Aguayo, F. (Co-PI), Kim, H. H. (Co-PI) and Kim, Y.-J. (Co-PI); “Establishing Best Practices for Construction and Design of Cement Treated Materials”; Texas Department of Transportation (TxDOT); amount requested: \$559,900; January 2018-August 2021.
- Portland Cement Association (PCA); “Determining the appropriate CO2 Concentrations and Ambient Relative Humidity to Assess Carbonation-Induced Corrosion Based on an Outdoor Exposure Site”; amount requested: \$35,000.

#### Publications

- Van Leeuwen, R., Kim, Y.-J. and Sriraman, V.; “The Effects of Limestone Powder Particle Size on The Mechanical Properties and The Life Cycle Assessment of Concrete”; Journal of Civil Engineering Research, Volume 6, No. 4, November 2016, Pages 104-113.
- Aguayo, F.M., Drimalas, T. and Folliard, K.J.; “Performance of Various Mixtures in Calcium, Magnesium, and Sodium Sulfate Using a Vacuum Impregnation Technique”; ACI Special Publication. (Accepted.)
- Aguayo, F.M., Torres, A., Talamini, T. and Whaley, K.; “Investigation on the Heat of Hydration and Alkali Silica Reactivity of Sustainable High Strength Concrete with Foundry Sand”; Advances in Materials Science and Engineering. (Accepted.)
- Talley, K. and Torres, A.; “Measuring the Impact of Rapid Feedback Daily Objective Pedagogy”; International Journal of Construction Education and Research, 2016, Pages 1-23; DOI: 10.1080/15578771.2016.1200697.
- Torres, A., Bartlett, L. and Pilgrim, C.; “Effect of Foundry Waste on the Mechanical Performance of Portland Cement Concrete”; Construction and Building Materials. (Accepted.)
- Torres, A., Sriraman, V. and Ortiz, A.; “Implementing Project Based Learning in a Concrete Industry Management Course”; International Journal of Construction Education and Research. (Under review.)





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## Technical Presentations

- Van Leeuwen, R., Sriraman, V., You, B.-H. and Kim, Y.-J.; “The Effects of Limestone Powder Particle Size on The Mechanical Properties and The Life Cycle Assessment of Precast/Prestressed Concrete”; Japan Prestressed Concrete Institute Symposium; Fukuoka, Japan; Oct. 20-21, 2016.
- Hu, J., Ledsinger, B. and Kim, Y.-J.; “Development of Eco-Efficient Self Consolidating Concrete (Eco-SCC) with Recycled Concrete Aggregate”; 8th International RILEM Symposium on Self-Compacting Concrete and 6th North American Conference on Design and Use of Self-Consolidating Concrete; Washington, D.C.; May 15-18, 2016.
- Aguayo, F.M., Drimalas, T. and Folliard, K.J.; “Performance of Various Mixtures in Calcium, Magnesium, and Sodium Sulfate Using a Vacuum Impregnation Technique”; ACI Convention; Philadelphia; October 2017.
- Aguayo, F.M., Huang, Y., Thomas, M.D.A., Drimalas, T. and Folliard, K.J.; “Effect of Environmental Conditions on the Propagation of Natural Carbonation”; The Corvallis Workshops—Service Life Prediction of Concrete; Corvallis, Ore.; July 17-19, 2017.
- Aguayo, F.M.; “The Fundamentals of Concrete Durability”; 7th National Concrete Mixing Design Contest; Toluca, Mexico; May 24-26, 2017.

## Industry Relations

**The CIM faculty participated in the following industry conferences and events.**

### Dr. Kim:

- Attended the Precast/Prestressed Concrete Institute (PCI) Annual Convention (Cleveland).
- Attended PCI Committee Meetings (Chicago).

### Dr. Torres:

- Attended the World of Concrete trade show and exhibition (Las Vegas).
- Attended the American Concrete Institute (ACI) Fall Convention (Philadelphia).
- Attended ACI Fall Convention (Detroit).

### Dr. Aguayo:

- Attended World of Concrete (Las Vegas).
- Attended the National Precast Show (Cleveland).
- Attended ACI Fall Convention (Philadelphia).
- Attended ACI Fall Convention (Detroit).
- Attended the ASTM C01 (Cement) C09 (Aggregates) Bi-annual Winter Meeting (Orlando, Fla.).
- Attended ASTM C01 (Cement) C09 (Aggregates) Bi-annual Summer Meeting (Toronto).
- Attended the Corvallis Workshops—Service Life Prediction of Concrete (Corvallis, Ore.).

## Other Faculty Activities

**The CIM faculty participated in the following activities.**

### Dr. Kim:

- Represented the CIM program at Texas State’s Bobcat Day, Nov. 19, 2016.
- Contributed to chapters in the PCI Design Handbook, 8th Edition.
- Served as an instructor for the Renewable Energy Research & Education Training Program at Texas State University, May 15-19, 2017.
- Served as a committee member for now Dr. Hyunhwan Kim, Ph.D., who was a doctoral candidate in the Material Science, Engineering, and Commercialization program and graduated in December 2016.

### Dr. Torres:

- Represented the CIM program at Texas State’s Bobcat Day, April 1, 2017.

### Dr. Aguayo:

- Represented the CIM Program at the CIM Summer Meeting at NJIT, May 2-4, 2017.
- Represented the CIM program at Texas State’s Bobcat Day, April 1, 2017.
- Represented the CIM Program at the Lone Star College-North Harris Campus Engineering/Engineering Technology Fair.
- Served as the ACI Student Chapter Faculty Advisor.

## Professional Affiliations

**The CIM faculty are members of the following organizations and committees.**

### Dr. Kim:

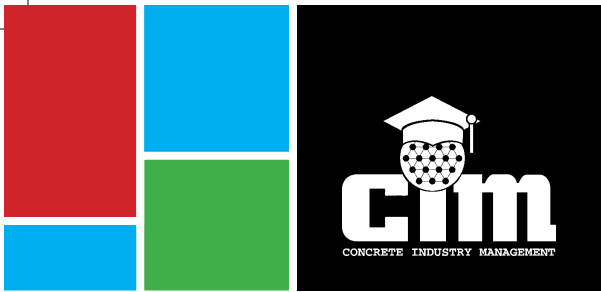
- Precast/Prestressed Concrete Institute
  - Seismic Design Committee
  - Industry Design Handbook Committee
- TxDOT Research Management Committee Technical Advisory Panel
  - RMC 5 Structures and Hydraulics
- American Concrete Institute

### Dr. Torres:

- American Concrete Institute
  - 555 Concrete with Recycled Materials
  - 522 Pervious Concrete
- American Society of Civil Engineers

### Dr. Aguayo:

- American Concrete Institute
  - 201 Durability of Concrete
  - 236 Material Science of Concrete
  - 364 Rehabilitation of Concrete Structures
  - 555 Concrete with Recycled Materials
- American Society for Testing and Materials International
  - ASTM C01 Cement



## ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017

- C01.26 Heat of Hydration
- C01.29 Sulfate Resistance
  - ASTM C09 Concrete and Concrete Aggregates
- C09.24 Supplementary Cementitious Materials
- C09.26 Chemical Resistance
- C09.48 Performance of Cementitious Materials and Admixtures Combinations
- C09.50 Risk Management for Alkali Aggregate Reactions
- American Society of Civil Engineers
- Society of Professional Hispanic Engineers
- Technical Manuscript Reviewer, Cement and Concrete Composites

### STUDENT ACTIVITIES

#### Scholarships

- The ACI San Antonio chapter awarded a \$1,500 scholarship to Cole Pilgrim.
- The ACI Central Texas chapter awarded \$2,000 scholarship to Cole Pilgrim.
- The Texas State CIM Patrons awarded scholarships ranging from \$750 to \$4,000 to Mason Davis, Michael Graves, Daniella Guillen, Tommy Huynh, Tate Talamini, Benjamin Wallace and Kady Williams.
- The CIM National Steering Committee (NSC) 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 Kolton Brockman, Jake Coronado, Anthony Esteban, Daniela Guillen, Jacob Mendoza, Kevin Whaley, Rockne Flowers and Charles Sorg. The NSC ISSF scholarships for 2016-2017 totaled \$20,300 from the NSC, with an equal match from the Patrons.

#### Student Projects

- **CIM 3420 Fundamentals of Concrete: Properties and Testing.** Ten students passed the ACI Field I Certification exam on April 1, 2017. The ACI Central Texas Chapter administered the exams.
- **CIM 4310 Senior Lab.** Student projects included “Effects of Limestone Powder on Concrete Properties and Cost Analysis,” “High Strength Pervious Concrete Using Silica Fume,” and “Mechanical and Acoustical Properties of Porous Concrete.” Students presented their projects Dec. 6, 2016.
- **CIM 3420 Fundamentals of Concrete: Properties and Testing.** Student teams were given the objective to design a high-strength concrete mix design. Several mix designs used locally available materials including various waste products, such as fly ash, limestone filler, etc., at more than 40 percent replacement of ordinary Portland Cement. These mix designs achieved more than 5,000 psi at seven days. Teams presented their projects April 16, 2017.

- **CIM 4340 Concrete Problems: Diagnosis, Prevention and Dispute Resolution.** Students made presentations to their class on their respective case studies.
- In October 2016, five Texas State CIM students attended the ACI Convention in Philadelphia, along with Drs. Torres and Aguayo. Tate Talamini, Kevin Whaley, Cole Pilgrim and Michael Graves represented Texas State in the ACI Mortar Workability Competition.
- In October 2016, Ryno Van Leeuwen presented his study, “The Effects of Limestone Powder Particle Size on The Mechanical Properties and The Life Cycle Assessment of Precast/Prestressed Concrete,” at the Japan Precast Concrete Institute’s (JPCI) 25th Symposium on Developments in Prestressed Concrete in Kitakyushu.

#### Industry Presentations

The following industry representatives showed presentations in the CIM 4310 Senior Lab class.

- Victor Bretting, Osburn Contractors, Nov. 8, 2016.
- Garrett Quick, Fox Blocks, Nov. 15, 2016.
- Dr. Derek Cong, Ph.D., WJE Associates, Inc., Nov. 29, 2016.

#### Site Visits

Students visited the following industry offices and facilities.

- CIM 4310 Senior Lab
  - WJE Material Laboratory in Austin, Texas, Sept. 6, 2016.
- CIM 3420 Fundamentals of Concrete: Properties and Testing
  - Victor Gonzalez, Texas Lehigh Cement, April 12, 2017.
  - Martin Marietta quarry and cement plant, March 24, 2017.

#### Events

- The first fall CIM program meeting was held Aug. 31, 2016. All CIM students were invited to hear about fall semester ACI Chapter activities, travel, recruiting activities and other topics.
- Representatives from Argos spoke to the ACI Student Chapter on Sept. 21, 2016.
- CIM Patron Victor Bretting from Osburn Contractors of Fort Worth, Texas, hosted a CIM recruitment social at Pluckers in San Marcos on Sept. 29, 2016.
- The ACI Student Chapter hosted its first social event by having a “Pool Night” at Cats Pool Hall in San Marcos on Oct. 11, 2016.
- Representatives from Argos spoke to the ACI Student Chapter on Nov. 18, 2016.
- A CIM program meeting was held Nov. 23, 2016. All CIM students were invited to hear about spring semester ACI Chapter activities, travel, recruiting activities and other topics.
- Seven CIM students, Dr. Aguayo, Dr. Torres, and Department Chair Dr. Andy Batey Jr., Ph.D., attended the World of Concrete in Las Vegas, January 2017.
- Cole Pilgrim and Tate Talamini both competed in the third

# ANNUAL INSTITUTIONAL CIM PROGRAM REPORT 2016-2017



annual CIM Presentation Competition, held as part of the World of Concrete in Las Vegas.

- Daniel Arkin, Mason Davis, Raul Gonzalez and Dr. Aguayo attended the National Precast Concrete Association's The Precast Show in Cleveland, March 1-5, 2017.
- A representative from HIPERCON Concrete Consultants spoke to the ACI Student Chapter in March 2017.
- Drs. Aguayo and Torres along with CIM students Tate Talamini, Kevin Whaley, Ben Wallace and Cole Pilgrim attended the ACI Spring Convention in Detroit, April 17-20, 2017. The CIM students represented Texas State and participated in the Fiber Reinforced Polymer (FRP) Beam competition.
- A representative from Martin Marietta spoke to the ACI Student Chapter in April 2017.

## Other Student Activities

The following students started their TECH 2190 internships in May/June 2017

Student	Employer
Thomas Bailey	Vulcan Materials Company
Braden Byrd	Osburn Structures
William Cinek	Bullion Coatings
Michael Graves	Garney Construction
Chase Hubbert	T&D Moravits Concrete Contractors
Jake LaLanne	JD Abrams
Eric Martin	Alleyton Resource Company
Heath McCarty	CEMEX
Cole Pilgrim	Argos
Hunter Robb	QuestMark
Kevin Romero	Colt Builders Corporation
Garret Senne	TAS Commercial Concrete
Landon Snider	Vulcan Materials Company
Tate Talamini	Argos USA
Ramon Vargas	Vulcan Materials Company
Benjamin Wallace	Lehigh Hanson
Kady Williams	Lehigh Hanson

- 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, Wis., on April 17, 2016.

- The ACI Student Chapter elected officers for the 2017-2018 academic year. Officers are Mason Davis (president), Daniel Arkin (vice president), Michael Graves (treasurer) and Savanna Sitz (secretary). Dr. Aguayo will continue to serve as the faculty adviser for the 2017-2018 academic year.

## PATRONS AND INDUSTRY ACTIVITIES

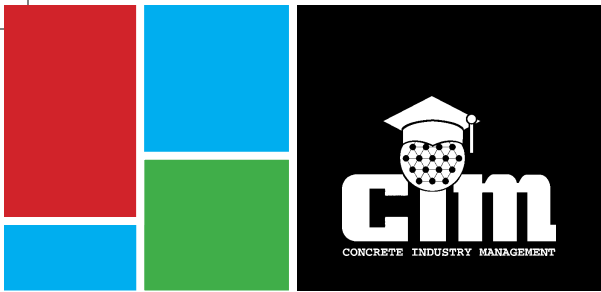
- The Texas State Patrons Board met Oct. 19, 2016, and May 11, 2017, in San Marcos.
- The Construction and Concrete Industry Career Fairs were held Sept. 29, 2016, and Feb. 9, 2017. More than 70 companies attended each fair.
- The Fall 2016 NSC Board of Directors meeting, and other related meetings, were held at University of California Chico State in October 2016. The Spring NSC Board of Directors meeting was held at New Jersey Institute of Technology in May 2017.

## FINANCIAL INFORMATION

INCOME	National Steering Committee: Operating	\$100,000
	National Steering Committee: ISSF Scholarships	\$50,000
	Texas State Patrons: CIM Scholarships	\$20,500
	Texas State Patrons: CIM Faculty Salaries	\$228,335
	<b>Total Income</b>	<b>\$398,835</b>

EXPENSES	Salaries: CIM Faculty	\$228,335
	Salaries: Student Employees	\$23,896
	CIM Department Maintenance and Operating	\$11,080
	CIM Departmental Travel	\$50,105
	ISSF Scholarships	\$20,300
	CIM Scholarships	\$20,500
	<b>Total Expenses</b>	<b>\$354,216</b>





## STUDENT PROFILE

“A primary reason why I am confident in the career I can create in the concrete industry is because of the experiences that CIM has exposed me to outside of the classroom.”



**TATE TALAMINI,**  
TEXAS STATE  
UNIVERSITY

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

I am currently attending Texas State University and plan to graduate in December, 2017.

### **Why did you choose this university?**

I chose to attend Texas State because of the university's reputation for developing young, educated leaders into individuals that will be able to contribute to the success of a company after graduation. I was able to see firsthand the success that graduates from Texas State could achieve through watching my older brother, Cameron, begin his career upon receiving his degree.

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

Prior to enrolling in the Concrete Industry Management program, I studied biochemistry for three years. Although I enjoyed the subject, I never truly felt comfortable with how my career would develop. I had always been interested in the construction field because of the ability to visually see the difference that was made each day while on a job site. I had little knowledge of the concrete, aggregate and cement industries, but I felt that I had found a new home in CIM after talking with Dr. Torres. Not only was I extremely interested in the subject, but I saw the potential to have a great career in a fast-paced industry.

### **Have you been able to take advantage of CIM's internship program or any other special program to develop your industry knowledge?**

A primary reason why I am confident in the career I can create in the concrete industry is because of the experiences that CIM has exposed me to outside of the classroom. I have been fortunate enough to attend an NRMCA national meeting, multiple ACI conferences and meeting, World of Concrete and numerous Texas Aggregate and Concrete Association (TACA) events during my time at Texas State. CIM has also exposed me to a wide variety of industry sectors through attending tours of multiple precast facilities, ready-mixed plants, cement mills and quarries. Through these experiences, I had the opportunity to complete an internship with a prominent Houston ready-mix supplier and earn an opportunity to work with the aggregate and concrete company where I am currently interning.

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

Not only do I feel like I am entering the start of my career with vast knowledge of concrete, concrete materials and construction processes, but I know that I will be able to step into a role immediately after graduation and make a positive impact on a company. This is a testament to the quality of the program. CIM has given me the opportunity to gain real world experiences and allowed me to put into practice what I have learned in the classroom and laboratory.

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

I would advise a new member in the CIM program to be as involved as much as possible and not be afraid to dive into something with little or no previous knowledge. This industry is full of men and women that are willing to share information and their experiences to younger individuals because they truly care and know that helping others enhance their education will contribute to future improvements in the industry.

## STUDENT PROFILE



**ELIAS G.  
MAGANA, JR.,**  
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. I am currently a sophomore and plan to graduate in the spring of 2020.

### **Why did you choose this university?**

I had a college fair my senior year of high school and I talked to Chico representatives about engineering. They also talked to me about the CIM program. I enrolled at Chico because of my interest in construction and concrete.

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

Coming into the program, I had no experience or knowledge of concrete whatsoever! The CIM program has definitely opened doors for me which will lead me on a path for success.

### **What is your favorite class and why?**

My favorite class is CIM 231: Fundamentals of Concrete Properties and Testing. It was my first CIM lab and I loved it. Getting a hands-on experience of concrete was really fun and motivating.

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

During my second semester of my freshman year, I had the opportunity to go to The Precast Show in Cleveland, Ohio. It was eye opening! I have not traveled much in my life and it made me realize how big the world is and it motivated me to chase bigger dreams. Seeing all the machinery at the show made me realize how big and promising the concrete industry is.

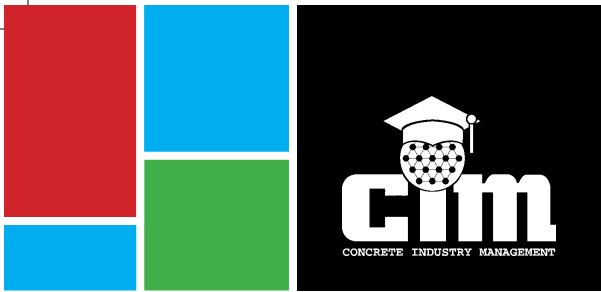
### **What advice would you give to someone considering joining the CIM program?**

You have nothing to lose and everything to gain in the CIM program. It is the best decision I've ever made. I was in a position of not knowing what I wanted to do with my life, but now feel like I have a promising career ahead of me. It is the best thing that could have happened to me.

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

CIM is the closest thing to family away from home. I am eight hours away from home, which is tough, but the CIM program has made it easier. We have a bond like no other major. It's amazing how small and close everyone in the industry is.

"Coming into the program, I had no experience or knowledge of concrete whatsoever! The CIM program has definitely opened doors for me which will lead me on a path for success."



## STUDENT PROFILE

“The CIM program is so unique compared to programs in other colleges. The students of CIM are constantly afforded opportunities to network with professionals and gain first-hand experience in the industry.”



**LAUREN ROSE,**  
NEW JERSEY  
INSTITUTE OF  
TECHNOLOGY

Patron’s meeting at NJIT about the concrete bookshelf I designed and made while at Hyde Concrete during my summer internship. After the presentation, the president of High Concrete gave me his business card and told me to look into High for a future internship. That summer I worked at High in the quality control department. They asked me to stay with them during the year to do some work remotely. The following summer I worked at High again in the project management department. Before I left my internship, High Concrete offered me a full time job upon graduation. After I graduate this December, I will be joining the engineering department design team.

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

The CIM program is so unique compared to programs in other colleges. The students of CIM are constantly afforded opportunities to network with professionals and gain first-hand experience in the industry. I’ve had the privilege of traveling across the country with my peers, working on national competitions and speaking at major conferences.

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

It’s okay to fail. Concrete fails every day — which is why we test it. We test methods, we test results and we test strengths. We do this to reassure that projects will be structurally sound and to ensure the quality of our concrete. There is so much to learn and understand about concrete and construction. We shouldn’t be afraid of failure, because it helps us aim toward success and teaches us more about our process. We should strive to learn as much as we can all the time, pushing the boundaries of our knowledge and striving for success in order to achieve more.

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

I am an undergraduate senior majoring in architecture and Concrete Industry Management, Engineering Technology with a minor in business. I plan to graduate in December, 2017.

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

When I first started at NJIT, I was a student studying just architecture. During my second year, I knew that while I was very passionate about design and buildings, I wasn’t getting the hands-on exposure I really wanted. My sorority sister, Erica Johnson, who was already involved in the CIM program, encouraged me to join the CIM program. I wasn’t sure at first how studying a material in college would help me further my connections and studies, but I haven’t regretted a moment.

### **Did you participate in any internships during your time at NJIT?**

I have been fortunate enough to have three different internships at two companies. After my first semester in the CIM program, I had an internship at Hyde Precast, a small concrete company in Maryland. The following December, I presented at the annual



## STUDENT PROFILE



**DIMITRIY O.  
PETROV,**  
MIDDLE TENNESSEE  
STATE UNIVERSITY

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

I am a senior at MTSU and intend to graduate in May, 2018.

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

I initially checked into the CIM program after deciding I was no longer interested in mechanical engineering. Growing up surrounded by construction and being a laborer since the age of 13, I knew that there was more to building and that I had a passion for it. I was familiar with construction, but concrete was all very new to me. After reaching out and speaking with several CIM alumni and hearing their positive experiences, I decided to apply to the program. It was clear that the CIM program was where I belonged after meeting with Dr. Heather Brown.

### **What are your career goals?**

I want to bring innovation to the industry through improved products and processes. With my background in design and engineering, I feel I am well-equipped to help invent, create and implement changes to advance our industry.

### **Did you participate in an internship while at MTSU?**

I had the opportunity to intern at Wirtgen America, working with an exemplary boss, Nick Maupin. During my four-month long internship, I served as a field service engineer and worked to resolve customer issues and was a liaison for Wirtgen. Working mostly in the slip-form paving division, I brought my knowledge of concrete science to help achieve desired results, troubleshoot and train others to properly use our products.

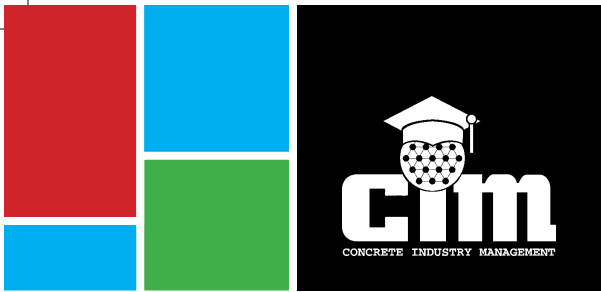
### **How has CIM prepared you for working in the concrete industry?**

The CIM program requires students to actively participate within the industry in order to graduate. Nicole Green has done a great job recruiting companies to visit campus and meet with CIM students, allowing us the opportunity to meet employers, find internships and gain industry experience.

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

If you love construction, I would highly recommend checking out the CIM program. The program provides great job placement, great professors, great people and an overall great learning environment. I have never been so close with this many other students, as well as professors from my classes as I am in the CIM program.

“The program provides great job placement, great professors, great people and an overall great learning environment. I have never been so close with this many other students, as well as professors from my classes as I am in the CIM program.”



## GRADUATE PROFILE

"The CIM alumni association at MTSU does a great job of staying connected with current students. I truly admire these people because they turned around and help the next one in line. I will also do the same and help anyone in the CIM program if I can."



**SAM LINDER,**  
MIDDLE TENNESSEE  
STATE UNIVERSITY

*Graduation Date: May 2017*

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

I currently work for Cemex in Ocala, Florida.

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

I started with Cemex on May 15, 2017. I am a management trainee learning ready mix plant operations, dispatching and sales.

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

I had always heard about Cemex in my classes at MTSU and I knew that I wanted to start my career with a reputable company. I also liked the fact that Cemex has a training program with a curriculum that was easy to follow. I like the curriculum, because I can check and update my status in the management trainee program.

### **Why did you choose to attend MTSU?**

I heard about the CIM program from my brother who also attends MTSU. I couldn't believe the job opportunities and the hands-on training that the CIM program provides and immediately enrolled. I saw a career path that would constantly be in demand and an ability to have an impact on my local region through concrete construction.

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

The CIM program got me hands-on training with labs as well as volunteer pours around campus. We would also hit the books in the classroom and then be able to apply that knowledge to our internships and jobs. The CIM program did a great job of providing real world experiences throughout the semester.

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

I would tell them to learn as much as you can and ask as many questions as you can think of. Doors will open and your future will be in your hands.

### **What is something you've learned from the program that has stuck with you even after graduating?**

The CIM alumni association at MTSU does a great job of staying connected with current students. I truly admire these people because they turned around and help the next one in line. I will also do the same and help anyone in the CIM program if I can.

## FACULTY/STAFF PROFILE



**W. JAMES WILDE,**  
TEXAS STATE  
UNIVERSITY

### **Which CIM program are you involved with and what is your position?**

I am serving as the new director of the CIM program at Texas State University. Previous to coming to Texas State, I also served as a professor at Minnesota State University and project manager at The Transtec Group in Austin, Texas. I am happy to be involved in the CIM program at Texas State as I know this is a great program that provides a good education, experience and opportunities for the students and graduates.

### **Do you teach a CIM class? If so, which one?**

I do teach the capstone class which I really enjoy because the students use what they have learned from every other class (math, physics, business, engineering, writing - even history and philosophy sometimes!) to bring a major project to completion. I get to see how the students grow and mature during this class because they have to plan everything. I give them one due date – at the end of the semester – and they must develop their own schedule and interim deadlines. They need to have, or develop, the work ethic and ability to determine all the missing pieces between the beginning and end of the semester, drawing on all the experiences from their formal education and internships to

that point.

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

The CIM curriculum is a unique mixture of the basic math and sciences, engineering, business administration and concrete industry that qualifies a graduate to work in many aspects of the industry without lots of additional on-the-job training. CIM graduates gain a technical background as well as a well-rounded business and science education that serves them well in the industry.

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

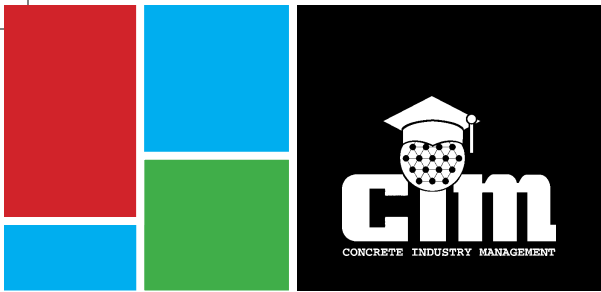
Do it if you think you will love the work, the industry and the people. You may not know the answers to those questions until after taking the freshman introductory class. Don't do it just because of the scholarships, great summer internships, possibilities to work closely with faculty on research or to travel to conferences. Those things pass. You have to love the work you do after you graduate. Pay attention in those introductory courses because it is there you will find the answers to those important questions.

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

Always work hard. Create more value for your employer than they are spending on your salary and benefits. Be the first to volunteer to do a less desirable job and then do it well. Always give your best and you will be rewarded in due time.

“Always work hard. Create more value for your employer than they are spending on your salary and benefits. Be the first to volunteer to do a less desirable job and then do it well.”





## WHERE ARE THEY NOW?

WE FIRST MET NARGUIS BENYAMIN IN THE 2012-2013 CIM ANNUAL REPORT. At that time, she was a student in the CIM program at New Jersey Institute of Technology (NJIT). We asked her a few questions about her experiences, as a student of the CIM program.

### THEN

**How has the CIM program prepared you as you graduate and enter into the business world?**

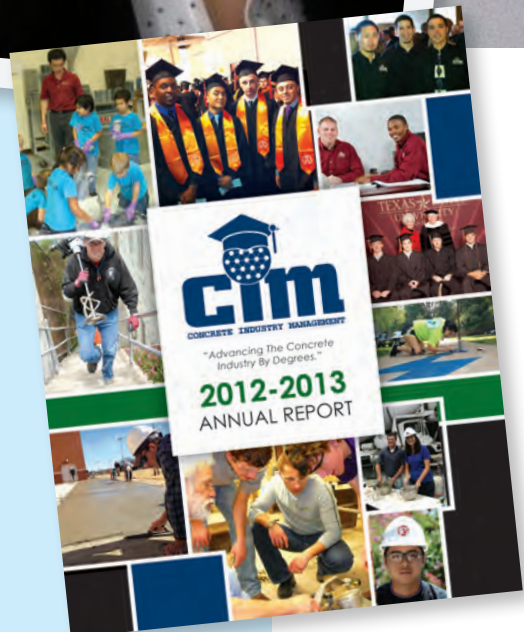
The CIM program has prepared me through all the hands-on classes and by participating in the ACI NJIT Student Chapter, the CIM Patrons meetings and ACI dinner meetings. Attending and participating in these events gave me a unique opportunity to learn and lead. Being the vice president for the ACI NJIT Student Chapter, I had the opportunity to compete in competitions at the ACI conventions.

**The CIM program works with businesses in providing summer internships. Have you been able to take advantage of that program?**

Yes, I have taken advantage of that program and I have an amazing internship in Quality Control at Creter Vault Corporation. My internship prepared me for life after college by exploring a career in the concrete industry before committing to it and discovering what I am interested in doing in the industry. I also get to expand my list of career contacts. I would encourage all CIM majors to participate in this valuable pre-professional experience.

**Have you been able to interact with the CIM Patrons at your school? If so, in what capacity?**

Yes, I have had the opportunity to interact with the CIM Patrons at NJIT and that's when I met Richard Creter, owner of Creter Vault Corporation. I have also met many more Patrons and NJIT alumni through various networking events.



## WHERE ARE THEY NOW?



NARGUIS GRADUATED FROM NEW JERSEY INSTITUTE OF TECHNOLOGY with a dual degree in the Concrete Industry Management (CIM) program in 2014 and the Construction Management Technology (CMT) program in 2013. We asked Narguis a few questions about what she has been up to since her graduation from CIM three years ago.

### **Where are you currently working and what are your main responsibilities?**

Two months ago, I began working full-time as an estimating engineer at Peerless Concrete Products. It is a family-owned business and they specialize in manufacturing and delivering a wide range of precast concrete products including manholes, outlet structures, septic tanks, seepage pits, catch basins, trench drains and many others. I estimate projects and, when awarded, I construct shop drawings.

Prior to Peerless Concrete, I worked for State Line Construction as a project engineer and safety director for three years. It is a family-owned business, established in 1977 and they

## NOW

specialize in excavation, masonry and concrete construction. State Line is a leader in the construction of commercial, industrial and institutional buildings and parking garages. I'm currently working for them on a part-time basis designing rebar shop drawings.

I am thankful and very lucky to be working with both of these prestigious companies. And of course, where I am now would not have been possible without the CIM program.

### **How has the CIM program prepared you for your current job responsibilities?**

The program prepared me in numerous ways to excel in my field. It gave me an understanding of both the science of concrete and the business aspects of the industry. I am confident that the skills and knowledge I've gained in the CIM program helped me ease my transition into the workforce. CIM is always current with the ever-evolving concrete industry, from new technologies and testing procedures to application techniques and business approaches. Also, the valuable internships help guide students choose the areas of the industry they would like to pursue. All of this makes a CIM graduate valuable and marketable as an employee in the concrete industry.

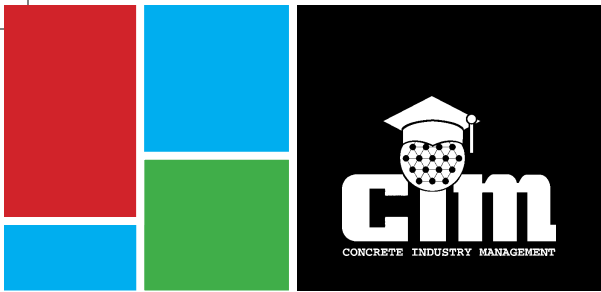
### **Why did you choose the CIM program?**

CIM has been able to create a curriculum that reflects the needs in the industry which allows students the opportunity to make a substantial contribution to the workforce upon graduation. In addition, the CIM program has substantial industry support.

### **What advice would you give to current CIM students?**

My best advice to current students would be to start your internships early which allows you to gain as much industry hands-on experience as possible. Also, get involved and stay active in the program. Networking is your most valuable resource.





## WHERE ARE THEY NOW?

IN THE 2009-2010 CIM ANNUAL REPORT, WE MET DANIEL COOK, a student at Middle Tennessee State University. At that time, we asked him a few questions about his experiences, as a student of the CIM program.

### THEN

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

This will be my second bachelor's degree from MTSU. Upon graduation, I was working with a construction equipment supply company where I visited jobsites and found a real passion for the construction industry. I heard how well students in MTSU's CIM program were excelling upon entering the job market. I decided that in order to achieve my career goals, I needed to apply to the CIM program and return to school.

#### **What advice would you give to other current CIM students?**

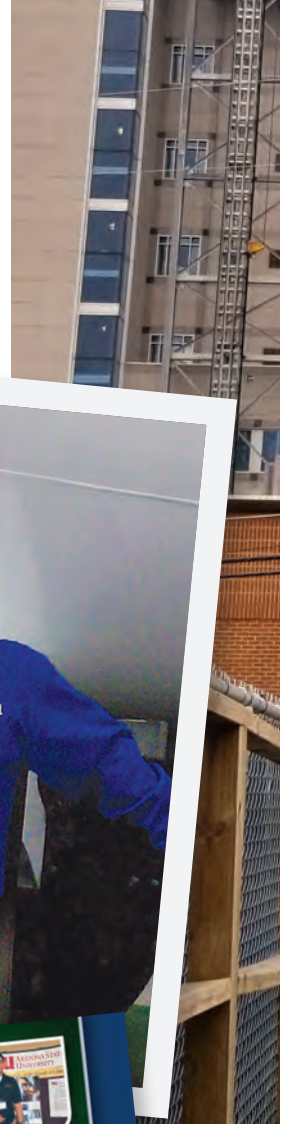
As someone who has graduated once and tried to get a job with no experience, I would tell them to be as involved as possible and experience as much as you can. Luckily they are in a program that gives them ample opportunity to do these things. Also, I would tell them to try to introduce themselves to as many people in their industry as possible. This will get their name out to the people who will one day be looking at their resume.

#### **Have you been able to take advantage of the CIM internship program?**

Yes. I am currently involved in my second internship with a large commercial contractor. These experiences have increased my industry knowledge ten-fold from day one. For my school and three others nationally, the CIM program does extremely well in setting up internship opportunities for their students in every way they possibly could. However, it is ultimately up to the student to take advantage of these gifts that the CIM program presents.

#### **Have you been able to interact with the CIM Patrons at MTSU? If so, in what capacity?**

Last semester, I led a team of five students to a second place finish nationally in the 2010 ACI Concrete Construction Competition. During our research, we consulted several industry professionals including CIM Patrons from MTSU. Every time I talk with a Patron, they are more than willing to listen to me and offer advice. I have learned that all I have to do is mention that I am a CIM student and they want to help.





## WHERE ARE THEY NOW?



DANIEL GRADUATED FROM MTSU IN MAY 2011. We asked Daniel a few questions about what he has been up to since his graduation from CIM six years ago.

### **Daniel, where are you currently working and what are your main job responsibilities?**

I am a project engineer with Turner Construction Company. My job is to build the project on paper and ensure all coordination is complete between owners, designers, trade partners, vendors, local authorities and end users throughout the construction process. In a nutshell, I act as a go-between for the owners funding a project and trade partners who put it in place.

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

I don't feel that I chose this position; I feel like the role found me. While at MTSU working on my bachelor's degree in concrete management, I worked for an equipment rental company

## NOW

and visited many construction projects on a daily basis. Turner's project in Murfreesboro always stood out to me due to the cleanliness, attention to safety and professionalism on the jobsite. Without trying to sound like I'm recruiting, Turner is the first company I have ever worked for where I feel that I am genuinely supported and encouraged by both my peers and leadership, and I wouldn't want to work anywhere else.

### **How has the CIM program prepared you for your current job responsibilities?**

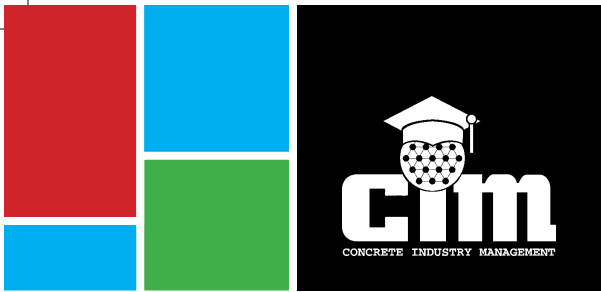
I have to focus on many aspects of a project outside of concrete. However, the knowledge and experience I gained while at MTSU gives me an advantage in that area. Also, the extracurricular involvement we experienced while working with the Patrons and industry professionals during school has helped me during my career. We had many ways to reach out to alumni and professionals for assistance, which was a great start toward building my professional network.

### **Why did you choose the CIM program?**

The CIM program gave me a "launching pad" for where I am today. I knew with CIM I would gain the experience and build a network that would help me get into the construction management field. The professors and staff with the MTSU CIM program were always available and offered many chances to gain experience than any other program I had been a part of. It is a quality program and it has definitely helped me fulfill my goal of working for the largest general contractor in the country.

### **What advice would you give to current CIM students?**

Do more than just go to class. Get involved, join an organization, lead an organization, meet people, exchange information, just talk to people in person or on the phone (without relying on an app)!



## ASSOCIATIONS



PROVIDING THE MEANS TO ADVANCE CONCRETE CONSTRUCTION

## CIM RESOURCES



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)

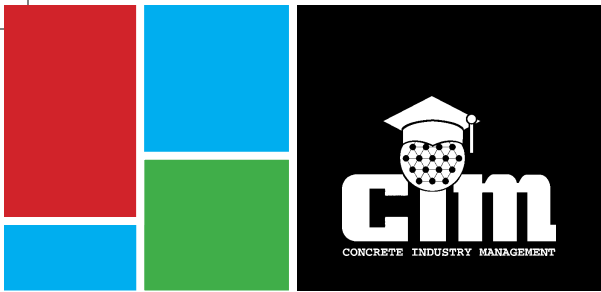
Portland Cement Association (PCA)

Precast/Prestressed Concrete Institute (PCI)

The Masonry Society (TMS)

The Post-Tensioning Institute (PTI)





## CIM BACKGROUND

### 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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**Michael Schneider**  
Immediate Past  
Chairman

### 2016-2017 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).

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*"Advancing The Concrete Industry By Degrees."*

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