

The background of the cover is a photograph of a rooftop pool area at night. The pool is illuminated with blue lights, and several lounge chairs are arranged along its edge. In the background, a city skyline is visible with various skyscrapers, some of which are lit up. The overall scene is a mix of modern architecture and urban life.

**FIU**

**FLORIDA  
INTERNATIONAL  
UNIVERSITY**

**ANNUAL REPORT  
2013 - 14**

**OHL SCHOOL OF  
CONSTRUCTION**



## **Annual Report 2013-2014**

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## **1. Introduction**

In its second year of existence as the first named school in the College, the OHL School of Construction made great strides in a number of noteworthy areas.

American Council for Construction Education (ACCE) re-accredited the undergraduate BSCM program after a site visit conducted in October 12-15, 2013. The school received favorable feedback from the visiting team and its strengths, leadership, engagement with the industry and the support from the college, were duly noted. The school curricula not only met the rigorous standards of ACCE, but in many instances exceeded them.

Industry partners were involved in several events organized and sponsored by the school. In addition to regular meetings of the Industry Advisory Council, FIU 101 (presented by the FIU Facilities Management Department), McGraw-Hill Construction Outlook (presented by Cliff Brewis), and Career Expo were held.

The school enjoys endowment and operating support from OHL Construction Company, and support for establishment and maintenance of the Built Environment Informatics Laboratory (BEIL) from Moss and Associates. The school also received cash donations and career fair fees in the amount of \$38,000 from its Industry Advisory Council (IAC) members. The school has launched a new campaign for naming various facilities and laboratories.

The school continued its international internship program with OHL by selecting and sending a student intern to Madrid this year.

Our undergraduate student team won the second place overall in the Associated Builders and Contractors (ABC) student chapter Construction Management Competition held in Las Vegas, Nevada. The FIU team was competing with student teams from the best construction management programs in the nation such as Auburn University, Clemson University, Colorado State, Georgia Tech, Purdue University, Texas A& M University, Ohio State University, and University of Florida among others. This year in spring the team won the second place overall held in Birmingham, Alabama and last year, it won the championship award in the same competition held in San Antonio, Texas.

The School began its professional weekend Masters program in the Pines Center and its first cohort graduated in fall 2013. The second cohort will graduate in fall 2014. The fall 2013 total (undergraduate and graduate) headcount is 360 compared to 424 in fall 2012. The graduate fall 2012 enrollment is 122, and the undergraduate enrollment

is 238. The graduate enrollment remained stable during the last three fall semesters, while the undergraduate enrollment has declined. We hope that enrollment will rise as the economy improves.

The total number of students graduated this year is 113, increased slightly from 102 last year.

It should be mentioned that according to the latest employment data published by SUS (2010-11 Florida Public University Graduates) the Masters in Construction Management has the highest employment rate in the state when compared to other universities in Florida and the Bachelor degree program in Construction Management has the second highest rate of employment.

OHL School of Construction faculty members were active in publishing their research findings in reputable construction journals and conference proceedings. Collectively, the school faculty published five journal papers, two research reports and eight conference proceedings papers.

The school did extremely well again this year in external research funding, thanks to Dr. Mostafavi, Dr. Bayraktar and Dr. Orabi.

The planned construction process laboratory was completed in summer 2013 and is now being used by students and faculty. The laboratory is intended to provide students hands-on demonstrations on real-life construction processes, construction materials, components and their assembly. Half-built walls, steel structural joints and samples of various construction components will be the features of this laboratory. It also houses, the MEP (mechanical, electrical, plumbing) studio on the first floor of the Engineering Center Building. This laboratory is equipped with HVAC, electrical and plumbing appliances/fixtures for demonstration to students, and computer hardware and software for instruction and training.

Dr. Yimin Zhu left FIU to join Louisiana State University as a professor and Dr. Youngcheol Kang left FIU to go back to his native country Korea. The school is fortunate to have Dr. Ali Mostafavi, a recent PhD graduate of Purdue University join us in fall 2013. In fall 2014 Dr. Nipesh Pradhananga, a PhD graduate of Georgia Tech will join the school as a tenure track assistant professor.

The school currently has 10 fulltime faculty members and employs, between 8 to 10 adjunct faculty members every term.

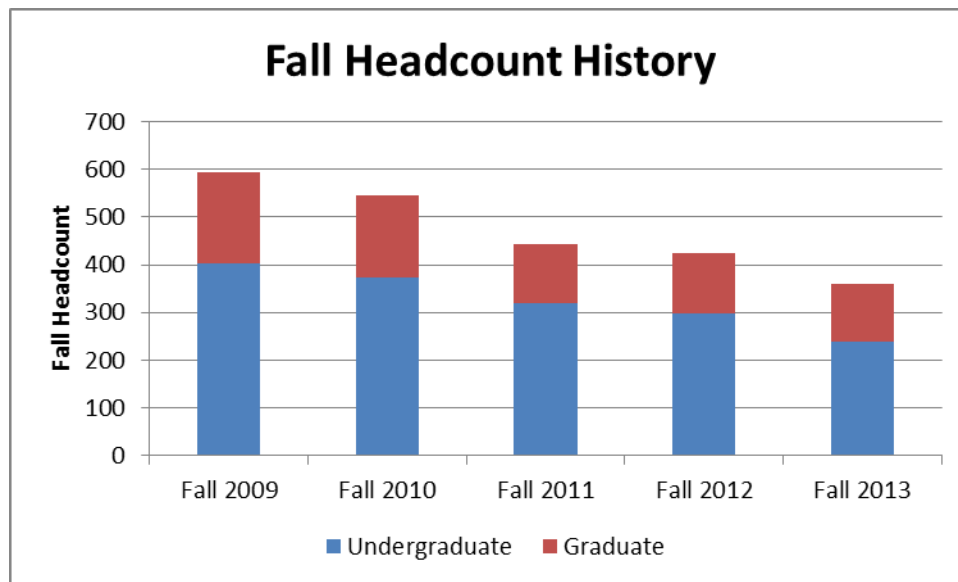
## **2. Academics**

## 2.1. Enrollments and FTEs

Fall headcount (enrollment) history is shown in Table 1 and Figure 1. After a steady growth of more than six years between 2003 and 2009, the fall enrollment has been declining over the last four years. This year the total decline is close to 15% from 424 to 360. The undergraduate enrollment dropped to 238 from 298 (almost 20%) and graduate enrollment remained steady, with a slight decline from 126 to 122 (3%). The decline in undergraduate enrollment is a nationwide trend currently as evidenced by similar declines in other major construction programs in the country. The economy in general, the construction sector, in particular is picking up in this region and is likely to have a positive impact on enrollment figures. The graduate enrollment is showing the sign of improvement already.

**Table 1. Fall Headcount History**

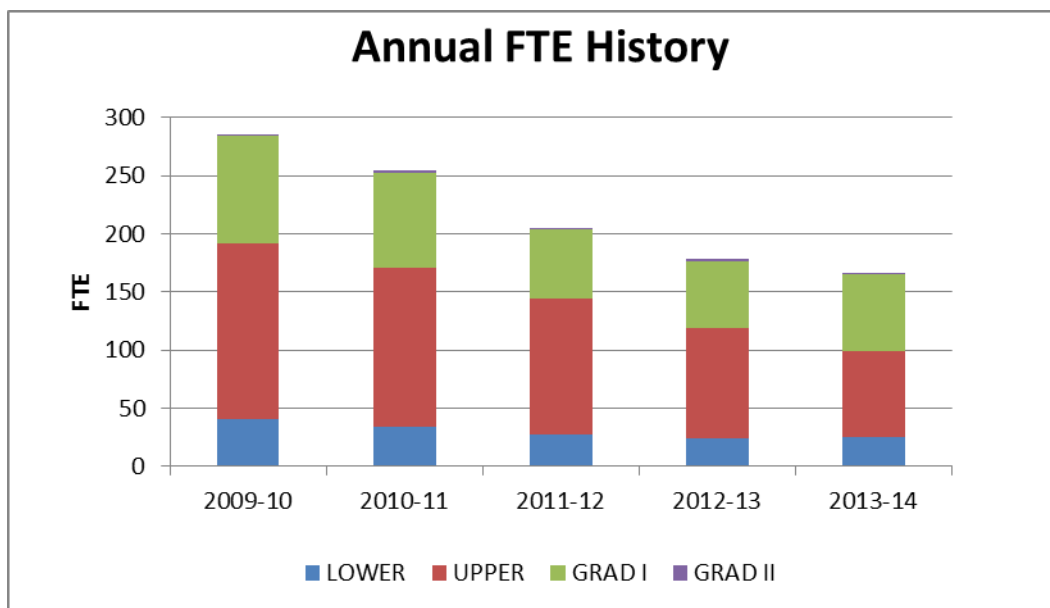
	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
UNDERGRADUATE	402	374	320	298	238
GRADUATE	192	172	123	126	122
TOTAL	594	546	443	424	360



**Figure 1. Fall Headcount History**

**Table 2. Annual Full Time Equivalent (FTE)**

	2009-10	2010-2011	2011-2012	2012-2013	2013-2014
LOWER	41.3	34.1	28	24.1	25
UPPER	150.4	136.2	115.9	94.6	73.9
GRAD I	92.8	82	59.6	58.1	66
GRAD II	0.5	2.1	1.1	1.4	0.4
<b>TOTAL</b>	<b>285</b>	<b>254.4</b>	<b>204.6</b>	<b>178.2</b>	<b>165.2</b>



**Figure 2. Annual FTE History**

The annual full-time equivalent (AFTE) students, calculated as the fundable student credit hours divided by 40 or 32 credits for the undergraduate and graduate students, respectively. Figure 2 shows the AFTE history of the school since 2009-10. As noted above regarding headcount, the AFTE figures show improvement in the graduate level (masters, GRAD I), while a significant decline in the undergraduate (upper division) AFTE is noted.

## **2.2. Online Masters Program**

The school began offering graduate courses online for its Masters students in 2004. Two sections for each online course are offered, one for the in-state students and the other for the out-of-state students. Fee structures are different. FTE credits of out-of-state students are not credited to the school. Sufficient courses are offered within a

four-semester cycle enabling students to graduate by taking all courses online. The enrollment has declined this year as compared to the years before as can be seen from Tables 3 and 4, and Figure 3.

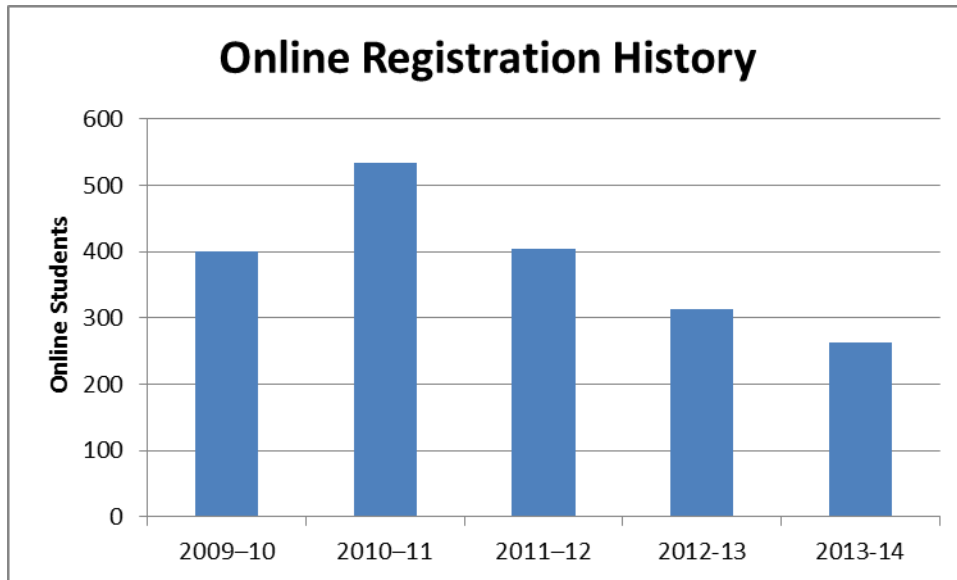
**Table 3. Online (MS) Enrollment and Course Offering**

<b>Semester/Year</b>	<b>Online Enrollment</b>	<b>Online Course Offering</b>
Summer 2009	125	3
Fall 2009	143	3
Spring 2010	133	4
<b>2009 - 2010</b>	<b>401</b>	<b>9</b>
Summer 2010	158	4
Fall 2010	203	5
Spring 2011	172	3
<b>2010 - 2011</b>	<b>533</b>	<b>12</b>
Summer 2011	113	3
Fall 2011	152	4
Spring 2012	138	4
<b>2011 - 2012</b>	<b>403</b>	<b>11</b>
Summer 2012	87	4
Fall 2012	124	4
Spring 2013	102	3
<b>2012 - 2013</b>	<b>313</b>	<b>11</b>
Summer 2013	90	4
Fall 2013	87	3
Spring 2014	86	3
<b>2013 - 2014</b>	<b>263</b>	<b>10</b>

**Table 4. Online (MS) Course Registrations History**

	<b>Online Enrollment (Total)</b>				
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>Graduate</b>	401	533	403	313	263





**Figure 3. Online Registration History**

### 2.3. Broward (Pines/Miramar) Center

The school offers classes in the Pines Center campus (to be relocated to a new Miramar campus), which is located in the Broward County for convenience of the students primarily residing in the Broward and the Palm Beaches counties. We offer a number of classes there every semester during the academic year, and fewer during the summer. Courses offered at the Pines Center during a given semester are not offered at the Engineering Center during that same semester and vice versa. During 2013-14 academic year 9 undergraduate and 2 graduate course-sections were offered with a total of 119 undergraduate and 14 graduate student-registrations in the Pines Center. The data in Table 5 show that there has been a drop in both undergraduate and graduate enrollments.

**Table 5. Pines Center Course offering/registrations**

	Academic Year		
	2011-12	2012-13	2013-14
Undergraduate	14/235	11/224	9/119
Graduate	5/104	2/29	2/14
<b>TOTAL</b>	<b>19/339</b>	<b>13/253</b>	<b>11/133</b>



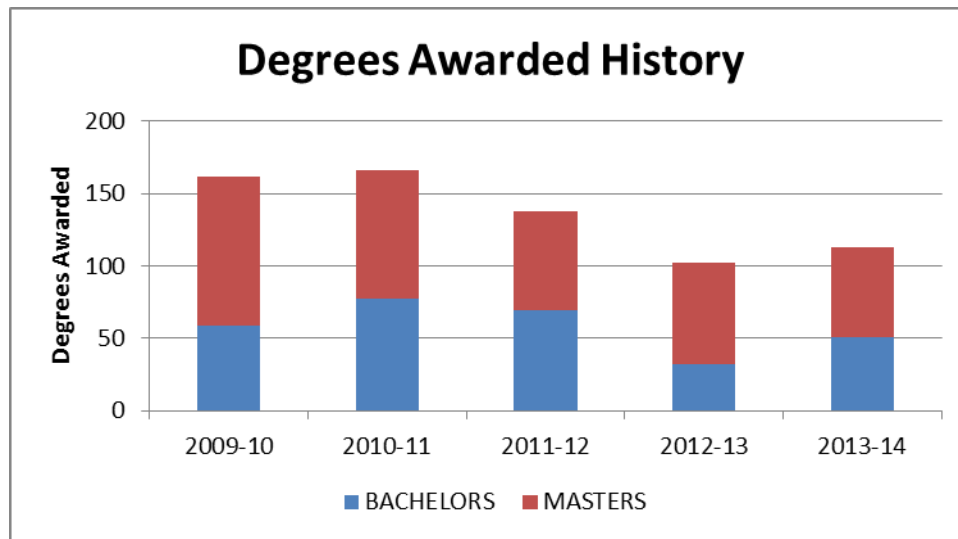
## 2.4. Degrees Awarded

The School awarded 113 degrees last year. The historical numbers over the last five years for bachelors and masters are shown in Table 6 and Figure 4.

Our graduates are employed by all major construction companies in south Florida and nationwide. OHL/ Arellano, Link Construction, Moss and Associates, Coastal Construction, Turner Construction, Odebrecht Construction, Balfour Beatty, MCM and Skanska are some of the major employers.

**Table 6. Degrees by Students**

DEGREE LEVEL	Academic Year				
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
BACHELORS	59	77	69	32	51
MASTERS	103	89	69	70	62
<b>TOTAL</b>	<b>162</b>	<b>166</b>	<b>138</b>	<b>102</b>	<b>113</b>



**Figure 4. Degrees Awarded History**

## 2.5. ACCE Accreditation

The CM undergraduate program (BSCM) has been re-accredited in fall 2013. The program has been awarded accredited status for six years by the American Council for

Construction Education (ACCE) in its board meeting held in February 2014. The program's strengths were duly recognized.

## **2.6. Student Chapter Activities**

Four student chapters are active in the School. These are: ABC (Associated Builders and Contractors), AGC (Associated General Contractors), National Association of Women in Construction (NAWIC), and Sigma Lambda Chi Honor Society. ABC Student Chapter is the most active and works closely with the south Florida ABC. This student chapter participates in the National Construction Management Competition annually. Every year ABC East Florida Chapter organizes a golf tournament to raise funds for supporting the student team. Dr. Jose Faria serves as the advisor and Dr. Ayman Morad as the mentor of the team, participate in the national competition.

The team won the second prizes overall in the National Grand Championship this year (twice in 2013) and the National Grand Championship last year (2012). It should be mentioned that FIU team also won the championship in 2006.

## **2.7. Online, Overseas and Professional Programs**

OHL has signed an agreement with FIU for the university's first international internship program, to be based at the company's headquarters in Madrid. For 10 weeks in summer 2013 OHL employed two FIU students. This year one student was selected for the program.

The first cohort of the UNIBE students (Dominican Republic) graduated last summer. Another cohort will begin soon. The professional MSCM program at the Pines Center also graduated its first cohort last fall. The second cohort will graduate this year in December.

## **2.8. Other Events**

### **2.8.1. Outreach**

- ABC Golf Tournament, February 28, 2014 at the Crandon Golf at Key Biscayne for raising funds to support the FIU ABC student team for participating in the National Construction Management Championship competition held in Las Vegas, Nevada.
- The School organized its regularly held Career Expo on February 19, 2014. Nineteen major construction companies including OHL/ Arellano, Facchina, Link, Moss, MCM, Skanska, Turner, and Weitz participated.

## **2.8.2. Industry Advisory Council Events**

- McGraw-Hill Event – Construction Outlook – Held April 25, 2014 at EC 2300.
- CM Industry Advisory Council Meeting and Holiday Luncheon – Held on December 3, 2013 at EC 2300.
- FIU construction projects workshop – Held on August 1, 2014 for the south Florida construction industry. John Cal, Associate Vice President, Facilities Management, and Bob Griffith, Director of Planning and Real Estate Development were the speakers.
- The Executive Council (Agustin Arellano, Jr., Chuck Nielson, Emilio Alvarez, Chad Moss, Irtishad Ahmad and Susan Jay) met several times throughout the year to assess the industry economy and strategize the fund-raising activities for the school.

### 3. Research and Scholarly Activities

#### 3.1. Research Areas

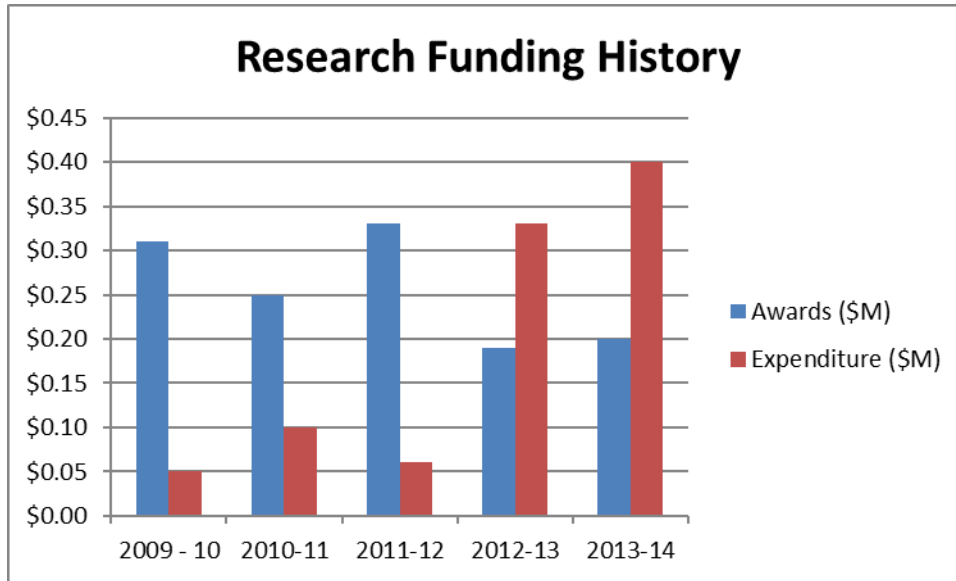
Major Research Area	Faculty Member
Risk Management and Decision Making	Irtishad Ahmad Emre Bayraktar Jose A. Faria Ayman Morad
Sustainability and Green Construction	Ali Mostafavi Gene Farmer Emre Bayraktar Jose Faria
Information and Communication Technology	Irtishad Ahmad Ayman Morad Ali Mostafavi
Infrastructure Systems and Management	Irtishad Ahmad Jose Mitrani Wallied Orabi Ali Mostafavi
Safety and Health	Gene Farmer Jose A. Faria
Construction Education	Ron Baier Irtishad Ahmad

#### 3.2. Research Funding

As shown in Table 7 and Figure 5, the school did extremely well again this year in external research funding, thanks to Dr. Yimin Zhu, Dr. Bayraktar and Dr. Kang. Dr. Mostafavi received a grant from the Construction Industry Institute at the beginning of this fiscal year (2014-15). Dr. Mostafavi and Dr. Orabi also received a UTC (University Transportation Center) grant in collaboration with the Civil and Environmental Engineering Department.

**Table 7. Research Funding History**

Year	2009 - 10	2010 - 11	2011-12	2012-13	2013-14
Awards, \$	\$310,000	\$250,231	\$331,837	\$193,386	\$223,324
Expenditure, \$	\$50,000	\$100,000	\$50,000	\$330,000	\$400,000



**Figure 5. Research Funding History**

### 3.2.1. Active Research Projects

1. Bayraktar, M. with Dr. Hastak, "Mitigating Threats of Counterfeit Materials in the Capital Projects Industry", CII, \$50,692, September 2013-August 2014.
2. Kang, Y., PI, "Benchmarking Research to Support the CII Benchmarking & Metrics Committee", Construction Industry Institute, \$16000.
3. Kang, Y., PI, "Development of Construction and Operation Methods for Low-Carbon Green Airport Pavement", Korea Institute of Construction and Transportation Technology Evaluation and Planning, \$18000.
4. Ahmad, I. (Co-PI), Suksawang, N., and Sobhan, K., "Develop Epoxy Grout Pourback Guidance and Test Method to Eliminate Thermal/Shrinkage Cracking at Post-Tensioning Anchorages," Florida Department of Transportation, \$148,698, August 2012 - October 2015.
5. Zhu, Y. (PI), "Collaborative Research: Foster Complex Systems Thinking in Construction Engineering Education Using a Case-Based Multidimensional Virtual Environment (CMVE)", \$100,000, January 2011 - Dec 2012.

6. Zhu, Y. (PI), "Stochastic Time, Cost and Environmental Impact Optimization for Construction Processes PI: Dr. Yimin Zhu, National Science Foundation: \$307,855, July 2010 – June 2015.
7. Mostafavi, Orabi with Drs. Hadi and Gan, UTC-ABC, Estimating total cost of bridge construction using ABC and conventional methods of Construction, \$131,289, June 2014-December 2015.
8. Mostafavi, with Dr. Jaselkis, CII, Improving Project Progress and Performance Assessment, \$100,000, September 2014-August 2016.

### 3.3. Research Productivity

In this section, a listing of the research output and faculty scholarly work is compiled.

#### 3.3.1. Journal Editorship

- Ahmad, I. Editorial Board Member, *Journal of Management in Engineering*, American Society of Civil Engineers.
- Bayraktar, M.E. Associate Editor, *Journal of Management in Engineering*, American Society of Civil Engineers.

#### 3.3.2. Books and Book Chapters

None

#### 3.3.3. Refereed Journal Papers 2013-14

1. Ayman Morad, Farrukh Arif. "Concurrent Delay in Construction: International Legal Perspective", *Legal Affairs & Dispute Resolution in Engineering and Construction*, February 2014.
2. Mostafavi, A., Abraham, D. M., and DeLaurentis, D.. "Ex-Ante Policy Analysis in Civil Infrastructure Systems", *ASCE Journal of Computing in Civil Engineering*, August 2013.
3. Mostafavi, A., Huff, J., Abraham, D. M., and Oakes, W. C., and Zoltowski, C. . "Integrating Service, Learning, and Professional Practice: Towards the Vision for Civil Engineering in 2025", *ASCE Journal of Professional Issues in Engineering Education and Practice*, August 2013.
4. Bayraktar, M.E. and Arif, F. "Venture Capital Opportunities in Green Building Technologies: A Strategic Analysis for Emerging Entrepreneurial Companies in South Florida and Latin America", *ASCE Journal of Management in Engineering*
5. Azhar, N., Kang, Y. and Ahmad, I. "A Critical Look into the Relationship between Information and Communication Technology (ICT) and Integrated Project Delivery (IPD) in Public Sector Construction," *Journal of Management in Engineering*, ASCE, (Accepted, July 2014).

### **3.3.4 Reports 2013-14**

None

### **3.3.5 Conference Proceedings Papers 2013-14**

1. Reza Sheykhi and Wallied Orabi. "Evaluating the Impact of Resource Utilization Decisions on Energy Consumption in Construction Projects and Portfolios", 2014 Construction Research Congress, Atlanta, Georgia, May 19-21, 2014.
2. Inman, A., Mostafavi, A., Ganapati, E., Guo, H., and Comu, S. . "Towards Operationalizing Resilience in Transportation Infrastructure Management", Project Management Symposium, Baltimore MD, June 2014.
3. Bobadilla, L., Mostafavi, A., Bista, S., and Carmenate, T. . "Predictive Assessment and Proactive Monitoring of Struck-By Safety Hazards in Construction Sites: An Information Space Approach", International Society for Computing in Civil and Building Engineering (ISCCBE), Orlando FL, June 2014.
4. Zhu, J., Mostafavi, A., and Ahmad, I. . "System-of-Systems Modeling of Performance in Complex Construction Projects: A Multi-Method Simulation Paradigm", International Society for Computing in Civil and Building Engineering (ISCCBE), Orlando FL, June 2014.
5. Zhu, J., and Mostafavi, A. "Towards a New Paradigm for Management of Complex Engineering Projects: A System-of-Systems Framework", IEEE Systems Conference, Ottawa, March 2014.
6. Zhu, J., and Mostafavi, A. "An Integrated Framework for Bottom-Up Assessment of Performance in Construction Projects", Project Management Symposium, Baltimore MD, June 2014.
7. Mahmoud, V. N., Bayraktar, M. E. "Toward Sustainable Infrastructure: Comparing environmental impacts of potential sources of value extraction from highway right-of-way", Project Management Symposium 2014, University of Maryland, College Park, June 9-10.
8. Arif, F., Bayraktar, M.E., and Ahmad, I. . "Net-Zero Building Venture Capital Market: Current Opportunities and Emerging Trends for Entrepreneurial Companies", Central Europe towards Sustainable Buildings (CESB13) Sustainable Buildings and Refurbishment for Next Generations, Prague, Czech Republic, 26-28 June 2013.

## **4. Fundraising**

### **4.1. Scholarships**

The school offers the following endowed scholarships to the students.



NAME OF SCHOLARSHIP	DESCRIPTION
CONSUL TECH	1 for \$1,000
BALFOUR BEATTY	1 for \$2,000
CONDOTTE AMERICA	1 for \$1,500
CASF	1 for \$2,500
ASPE	1 for \$2,000
KELLY FOUNDATION (CM & CIVIL)	2 for \$2,000 ea.

#### **4.2. Industry Support Campaign**

The historic achievement last year was the transformational gift received from the international construction giant OHL Construction. The multiyear monetary gift in terms of endowment and operational expenses transformed the department into the newly named OHL School of Construction. In addition to this gift, the school received cash donations in the amount of \$38,000 from the Industry Advisory Council members. The school has launched a new campaign for naming various facilities and laboratories in the school.

#### **5. Future Plans and Priorities**

The faculty reviewed the mission and goals of the School as well as its strategic plan developed last year during monthly meetings throughout the academic year. The plan is included in Appendix A of this report.

##### **5.1. Priorities**

###### **5.1.1. Research Funding**

The School will strive towards establishing the construction program as a research intensive program. Hiring of new faculty in strategic areas to increase external research funding will continue to be a priority. Efforts will be made to hire faculty with proven strengths in research and to identify emerging research areas and funding agencies. Although, two faculty members left the school this year, one new faculty member is joining this fall.

###### **5.1.2. Marketing of programs (website, visits, brochures, newsletters, postcards, mail campaign)**

The School will continue its efforts in attracting students from other states and countries as well as from governmental and corporate entities. With the help of the new assistant director of marketing hired by the School, it will publish redesigned brochures, program descriptions, newsletters and other print materials. Advertisements will be placed in trade magazines and industry association publications to market the programs.

### **5.1.3. Maintain Accredited Status**

The School will continue to retain its accredited status of the bachelors program with the highest order of approval. Preparations in terms of outcomes assessment, satisfying curriculum requirements, providing oversight of instruction, achieving program goals, involving the industry in curriculum development and improvement are underway.

### **5.1.4. Alumni Association**

The School Alumni Association will be encouraged to undertake activities such as annual gathering, sports, and other extracurricular activities. Alumni will be invited to participate in outcomes assessment survey, contribute to newsletter articles, and fund-raising.

### **5.1.5. Construction process laboratory**

The Construction Process Laboratory is now functional in OU 104. It is intended to provide students hands-on demonstrations on real-life construction processes, construction materials, components and their assembly. Half-built walls, steel structural joints and samples of various construction components will be the features of this laboratory. This laboratory is required to satisfy the accreditation criteria set forth by American Council for Construction Education.

## **5.2. Resource Needs**

- Staff support for expanding overseas and online programs.
- Additional faculty lines.

## **5.3. New Programs**

- Expansion of international and online programs at the Master's level; other areas for expansion could be joint BS and MS degree programs in construction engineering together with the Department of Civil and Environmental

Engineering, and the concrete industry management (CIM) program in collaboration with the concrete industry.

- Seminars/conferences/workshops – The school can organize seminars and workshops for the industry professionals, contractors and their employees. There is a critical need for such programs as the industry needs to keep its employees updated with new knowledge and techniques in the field.

#### **5.4. New Directions**

##### **Organizational Growth and Development**

- Recruitment of two additional faculty members within two years.
- Recruitment of a support staff for expanding online and overseas masters program.

##### **Curriculum Improvement and New Program Implementation**

- Both undergraduate and graduate curriculum will be reviewed by the faculty with input from the industry advisory council members for relevance, currency and incorporation of new knowledge. Curriculum modifications will be made as determined necessary by the faculty.
- If approved, implement the new programs, including Bachelors and Master of Science in Construction Engineering in collaboration with Civil and Environmental Engineering and enact improvements as necessary.

##### **Enrollment Management**

- Re-evaluate the admission policy for the undergraduate and graduate programs to address the quality of students being admitted to the program and the high demand on the discipline.

##### **Research**

- Hire faculty with proven strengths in research and identify emerging research areas and funding agencies to capture external funding.

##### **Fundraising**

- Complete the ‘naming of the facilities’ campaign and begin to envision future fundraising goals. Recruit additional IAC members.

## Appendix A - OHL School of Construction - Strategic Plan

**OHL School of Construction  
Florida International University  
Transformation and Growth Strategies  
Strategic Plan  
2012-2017  
May 11, 2012  
(Revised - February 15, 2013)**

### **Vision**

The OHL School of Construction will be known in the world as the center for excellence in construction education. The School will play a significant role in preparing future generations of constructors as skillful leaders responsible for constructing our built environment and thus transforming the world.

### **Mission**

*The mission of the School of Construction is to provide enlightened leadership to the construction industry through its graduates; to increase and improve the body of working knowledge; and to promote the interdisciplinary transfer of technology. The School will continue to strive to produce professional construction managers who are informed and participating citizens with a sense of duty and responsibility, whose actions express high moral and ethical standards, and who understand the impact of their work on society.*

The School continues to serve the needs of south Florida, the nation, and the world through high-quality teaching, research, and professional involvement through the following goals:

1. Provide effective education to students and prepare them to enter the construction profession.
2. Utilize available technology to enhance teaching and learning.
3. Broaden access to construction management education through distance learning opportunities.
4. Conduct and disseminate research in the construction area.
5. Foster and create opportunities for student-industry interaction.
6. Create the environment and provide adequate resources for the professional growth of the faculty.
7. Encourage, promote and support vibrant student organizations and an active alumni association.
8. Be the preeminent source of construction knowledge for industry and the community at large.

## History and Background

The Department of Construction Management at FIU was founded in 1973 and its undergraduate program was accredited in 1983. With growing graduate programs and several other accomplishments, the department, now the OHL School of Construction, is in a position to assert its place among the top five such programs in the country. During the past four years, the CM's undergraduate student enrollment (375, fall 2010) has increased by 37%, while graduate enrollment (171, fall 2010) has shown a 21% increase, reflecting the accelerating demand for FIU trained construction managers. 77 students graduated with a Bachelors' degree (BSCM) and 89 students received a Master's degree (MSCM) in 2010-11. Its 1800+ alumni are highly placed in the South Florida construction industry, one of the busiest in the country; many of them having their own construction businesses/companies.

Today, the FIU construction management program plays a vital role in the local economy by providing much needed, well-educated and highly trained workforce. With projected industry growth, in extent and in nature, the FIU construction program is poised to take the next leap - it can expand in size, facilities and new degree programs.

As evidenced from the enthusiastic participation of several nationally and internationally reputed construction companies in past career fairs organized by the department, FIU graduates are highly valued by the local as well as the national construction industry. Conversations with several company executives suggest that FIU graduates are valued for the high class training and education they received at FIU and for the experiences they have already earned as interns, part-time workers and in some cases as full-time employees. The department is also very fortunate in having the availability and willingness of qualified local industry professionals for teaching as adjunct professors. The local construction industry is large and includes several nationally reputed companies. We have developed a vigorous campaign plan to bring these companies as partners of FIU in training and educating the workforce. We are working with the industry to develop potentials for their contributions in endowment funds, cash gifts, scholarships and fellowships, named professorships, named programs and/or facilities. Construction Management is indeed one of the very few programs in FIU that can achieve national preeminence very quickly, can significantly contribute to the economic development of the state, and can attract endowment dollars to FIU.

The department's close bonding with the south Florida construction industry has finally paid off. It will formally be a named school on March 20<sup>th</sup> of this year. With the new OHL School of Construction, a new era begins for the construction

programs at FIU. The program must seize the opportunity and position itself to become a premier institution of construction education and research nationally as well as globally.

## **A. Education**

**Strategic Goal:** To prepare the next generation of leaders who will transform the construction industry by improving its processes and outcomes.

### **Undergraduate Program Strategies**

- Develop new degree programs such as a BS in Facilities Management, Construction Engineering, energy-efficient building, sustainability and others.
- Recruit and retain adequate number of faculty and staff, especially faculty with specific expertise which matches curriculum needs.
- Increase our roster of qualified adjuncts.
- Establish Practice Professorship positions with industry support.
- Improve the curriculum continuously to include evolving topics and construction technologies (such as BIM, leadership skills, communication skills and entrepreneurship) and to provide the flexibility to adapt changing advances in knowledge and technology.
- Develop internship and study abroad programs.
- Establish an effective recruitment program for incoming freshmen students.
- Encourage students to participate in local and national student chapter competitions and increase our efforts in improving the skills and competitiveness of our student participants.
- Develop a construction process laboratory.\*
- Engage the industry for input and feedback on curriculum issues and on research development.

*\* The School has been allocated funding for developing its planned construction process laboratory. The laboratory is intended to provide students hands-on demonstrations on real-life construction processes, construction materials, components and their assembly. Half-built walls, steel structural joints and samples of various construction components will be the features of this laboratory.*

### **Graduate Program Strategies**

- Develop a PhD degree in Construction.

- Develop new degree programs such as MS in Construction Engineering and interdisciplinary degree programs such as MS in Integrated Project Delivery, Facilities Management, and others.
- Recruit and retain adequate number of faculty and staff.
- Enhance the quality of graduate students who are admitted to the OHL School.
- Incorporate research findings and current issues in instructional materials such as sustainable built environment, globalization, and information and communication technology.

## **B. Research**

**Strategic Goal** – establish the OHL School as a center for groundbreaking construction research.

### **Strategies**

- Promote innovative research in critical areas of the built environment.
- Diversify research areas\* into building and material related fields and reflect this strategy in faculty hiring.
- Develop collaborative relationships with the industry.
- Develop research coalitions with related disciplines at FIU and outside.
- Establish state-of-the-art research facilities such as the proposed Built Environment Informatics Laboratory.
- Create an environment that encourages and rewards outstanding research.
- Promote diversity among faculty and students.

*\* such as sustainability and resilience of urban infrastructure systems, security in built environment, disaster mitigation, smart materials/structures, modular construction, energy efficient buildings, etc.*

## **C. Industry Outreach**

**Strategic Goal** - the goal is to engage the industry with the school in order to fulfill its mission and to provide high quality training and education opportunity to the industry.

### **Strategies**

- Provide high quality and convenient construction programs for executives.
- Provide continuing education training programs.
- Generate additional revenue from fee-based programs such as overseas and professional programs.



- Increase marketing efforts through newsletters, brochures, websites and advertisements.
- Strengthen relationship with corporate partners and alumni through expanding our alumni chapters' network and engaging construction professionals and executives in our Industry Advisory Council.
- Launch an annual Construction Trade Show.
- Promote and market the construction clinic services to the local construction industry.
- Offer opportunities for naming of school facilities/amenities/labs/professorships to industry partners (through CEC development office).
- Launch events, such as Senior Project Day, Research Showcase, Career Expos (existing), Graduation Banquet, Alumni night/activities, Lecture Series, etc. Establish of an Industry Wall of Recognition, and develop ways to recognize donors.

#### **D. Faculty**

**Strategic Goal**–Recruit, retain and develop outstanding faculty;  
Promote diversity in faculty hiring.

#### **Strategies**

- Develop a strategic faculty hiring plan.
- Create opportunities for faculty-industry collaboration.
- Develop an award program for faculty excellence in teaching, research and service.
- Develop an internal mentoring plan for junior faculty.