Celebrating 100 Years of Civil Engineering at UA

By: Weislaw K. Binienda

The Civil Engineering Program was founded in 1914 together with Mechanical Engineering and the Cooperative Education Program as three parts of the College of Engineering at The University of Akron. Dean Frederic E. Ayers took responsibility as the first Dean of the College as well as the Head of the Civil Engineering Department. The first several years were not easy. The first full time instructor was J.S. Mathewson, responsible for most of the CE courses. Three years later, Professor Ross C. Durst was added to the faculty but Mr. Mathewson left just a year later. So, until 1919, the CE department had only one faculty member. The first student, Mr. John S. Kennedy, graduated with a BS in Civil Engineering in 1918. In 1919, the second student, Lucius F. Converse, graduated. The first three years generated only one graduate each.

Mr. Clarence O. Edgahl was responsible for the Engineering Labs for two years from 1918 to 1920, but he left the department two years before Professor John W. Bulger was
added in 1922 followed by Associate Professor David E. Anderson who started in 1923. From that time, the CE department consisted of three professors and students increased to four and then to seven leading up to the Second World War. Professors Boris W. Boguslavsky (1942-1948), Mr. Paul Montgomery (1942-1943), and Professor Lester H. Weinberg (1946-1951) had fewer students as most of them participated in the war effort in Europe and Asia.

A new era for the Civil Engineering Department started after the war when Dr. Rudyard M. Cook (1951-1955) became the second department head, leading the department with faculty members including Alvin M. Richards (1949-1980), William F. Schlenk (1948-1951), Donald Hoffman (1948-1949), and R.D. Landon (1946-1963).

Next, Dr. Duane R. Keller (1955-1964) became the third department head. In this time period, Dr. George P. Manos (1957-1979), William M. Glazier (1958-1962), and David H. Timmerman (1962-1988) educated Civil Engineering Students. The same year Ms. Minnie Pritchard was the first
female graduate from our department. In 1959, the first MS degree was granted to Mr. Burt W. Blum who received his BS in CE from MIT in 1953.


Dr. Tse Yung P. Chung (1973-1992), Dr. Robert Liang (1985 – present), and Dr. Atef Saleeb (1978 – present) significantly expanded Civil
Engineering research. Dr. Chung became the next department head (1990-1992) followed by acting department head Dr. B. Drennon (1993-1994), Dr. Arbuckle (1995-1996), Dr. Liang (1996-2000), and since 2000 the helm of the Civil Engineering Department has been held by Dr. Wieslaw K. Binienda (1988- present).


facility design and development over the years.


Today, the Civil Engineering Department is proud to have eighteen active Professors: Dr. Ala R. Abbas, Dr. Wieslaw K. Binienda, Dr. Teresa J. Cutright, Dr. Gary Doll, Dr. Stephen E. Duirk, Dr. Qindan Huang, Dr. Robert Y. Liang, Dr. Craig C. Menzemer, Dr. Christopher M. Miller, Dr. Ernian Pan, Dr. Anil Patnaik, Dr. David Roke, Dr. Atef F. Saleeb, Dr. William H. Schneider, IV, Dr. Kallol Sett, Dr. Juliang Tao, Dr. Ping Yi, Dr. Gunjin Yun, Dr. Lan Zhang.

Current staff members include Ms. Kim Stone (Administrative Assistant), Ms. Sheila Pearson (Assistant to Editor), Mr. Dave McVaney (Technician), and Mr. Brett Bell (Technician). Often we are helped by adjunct faculty including Dr. Robert Goldberg, Dr. William Arnold, Mr. Robert Andrews, Dr. Waseem U. Khalifa, and our longest employed adjunct professor Mr. Robert L. Bunnell.

I would like to express my great gratitude to all past and current staff and faculty members who contributed to the success of the Civil Engineering Department over 100 years of serving our students. I apologize to those faculty and staff whose names I have not been able to find and I hope to hear from many alumni and friends who would like to share their good memories and words of wisdom for the next 100 years.

Thank you!
(Above) Massey-Ferguson/UA “Construction Administration” Seminar (April 5 and 26, 1971) - Tom MacCalla Jr., Manager, MF Training; Dr. Andrew Simon, Professor and Head of Department of Civil Engineering; N. Robert Bennett, President, Bennett Construction Co.; Dr. S. Sarikelle, Asst. Professor, Department of Civil Engineering; Robert Schiesswohl, General Sales Manager, MF Eastern Division.

(Right) 40th Anniversary of College of Engineering.
Seated: Dean Landon, President Auburn, Dean Emeritus Ayer. Standing: Walter R. Crumrine ’53, J. Earl Gulick, ’19

(Left) Engineering Faculty 1952
Row 1: Dr. Li, Professor Wilson, Dr. Huss, Dr. Tao, Professor Petry
Row 2: Mr. B. Smith, Professor P. Smith, Professor Hamlen, Dean Landon, Mr. Bezbatchenko, Professor Sibilia
Dr. Simon speaks with engineering students

Student Organizations and Activities

ASCE 1928 Members (not in order): L.E. Miller (President), Ray Harter, (Vice-President), K.R. Hooley (Secretary & Treasurer), Ben Gilbert, Leland Hine, Willard Kopf, Lawrence Miller, Vernon Miller, Wallace Robishaw, Sam Symms, Hamilton Tomb, Carl Viall, Ralph Wingerter


1976 Concrete Canoe team: Dan Pasolovich, Tom Nixdorf, Tom Clark, Joe Racquia, Roger Swart, Lou Ciraldo, Brian Walsh, Rick Rokich

(Above) 1983 Concrete Canoe Team members

1978 Concrete Canoe Team

(Lef) 1973 Concrete Canoe Team at Notre Dame: John Malivuk, Mike Cavanaugh, Roger Zimmerman, Frank Pavlovicz, Eric Forsperg, Roger Lyons, Glen Nespeca (in canoe).
1962: A civil engineering student spends time in the sanitary lab.

1962: All engineering students must know how to use a Post Versalog Slide Rule.

1951: Co-op student Charles Messmore’s “On the Job Training” at the new expressway in Akron.
Civil Engineering students pose around the sign they built for the ASEC building in 1984.
Hello to all my friends and foes alike who were in or around the University of Akron from 1984 to 1991. I have many fond memories of my seven years at U of A. I enjoyed working with my colleagues Andrew Simon, Brian Arbuckle, Simsek Sarikelle, Paul Timmerman and John Carpenter. I especially remember some of my more colorful students such as Paul Wischt, Byron Rose, Joe Recktenwald, Thomas Knapp, Gordon Smith and Eric Klink to mention a few. My apologies to others I may have forgotten, but many years have passed. I remember a few concrete canoe races (selling hotdogs with a then Ph.D. student Joe Recktenwald), a weekend trip to Seven Springs Ski Resort (with Mr. Wischt and Mr. Rose), many weekends trampling across Hardy Road Landfill with Mr. Klink and many nights with an assortment of students at some bar across Exchange Ave. from campus (the name escapes me). I regret that I cannot make the reunion, as I will be sending my daughter off to Costa Rica for a study abroad program about that time.

A little about me since I left the land of “muzak and shopping malls from Seneca to Cuyahoga Falls” in the immortal words of Chrissy Hines. After a five year stint at South Dakota State University, I found my final resting place at the University of Portland (Oregon that is). I have taught here on the bluff, for the past 17 years. U of P is a small Catholic comprehensive University affiliated with the same order of priests who founded Notre Dame. I continue to teach Environmental and Water Resources Engineering courses. I have also become very involved with study and service abroad through Engineers without Borders. Those two passions have provided me several opportunities for teaching and service in Europe, China and Central America.

I have two great kids (Eric and Claire) who are currently in the final years of their college careers and looking forward to the day when they will support my retirement. When not slaving at the office, I enjoy urban farming and experiencing the great northwest and exploring the world whenever the opportunity presents itself.

To all that made my seven years in Akron such a great experience, enjoy that reunion and have a few brews on me. If you are ever out on the “Left Coast” be sure to look me up.
Pizhong Qiao is a world leader in the development of high performance materials used in civil infrastructure and aerospace structures. Now, a professor at the Department of Civil and Environmental Engineering at Washington State University (WSU) and an engineering mechanics professor at Shanghai Jiao Tong University, Qiao had worked as an assistant/associate professor in the Department of Civil Engineering at UA from 1999 to 2006.

As a recent recipient of Anjan Bose Outstanding Research Award at WSU, Qiao is honored as a highly successful researcher, internationally recognized and respected by his peers. Qiao has a sustained level of research productivity that is exemplary, and he has significantly contributed to WSU's reputation for excellence in research, as noted by one of his nominators for the award.

While at UA, he was bestowed the 2005 Outstanding Researcher of the Year in the College of Engineering and selected as the 2006 Outstanding Teacher of the Year by the Engineering Honor Society – Tau Beta Pi Student Chapter. At UA and WSU, he has collaborated on research with NASA, Boeing, and IFOS. His current research is focused on smart structural health monitoring, interface mechanics, nonlinear large deformation of composite structures, impact (blast and ballistic) resistant materials, and sustainable concretes.

Qiao has more than 160 refereed publications in print in national and international journals and books, including several that are considered seminal contributions in the field. He is among the top one percent of the most highly cited authors in engineering, according to the ISI Essential Science Indicators. He holds one awarded patent and two non-provisional patent applications in the area of hybrid composite structures for blast and ballistic protection.

In 2007, he was elected a fellow of the American Society of Civil Engineers (ASCE) for his outstanding technical contributions in advanced composites. He is the current chair of ASCE Aerospace Division and serves as the associate editor for Journal of Aerospace Engineering, Journal of Engineering Mechanics, and Structural Health Monitoring-An International Journal.

Qiao has received more than $5 million in funding from federal and state agencies as well as companies, including the National Science Foundation (NSF), Air Force Office of Scientific Research, Federal Highway Administration, and NASA.

Qiao now lives with his wife Dan Liu and two daughters, Lily (15 years old) and Lynnlin (9 years old and born in Akron, OH).
The University of Akron gave me the credentials that started me on a very exciting and interesting career. Since graduating as part of an 8-person class of civil engineers in 1963, my career has taken me to live in 8 states and 2 other countries. I’ve participated in projects in other states and in over 20 countries. Civil engineering has given me the opportunity to make a difference in the lives of people by helping to plan, design and build infrastructure that improves the quality of life.

Civil engineering has been and continues to be a great profession for me. In fact it’s been a very fulfilling one. I’m so glad that as a young boy I discovered what a civil engineer does by watching a new freeway being built a few blocks from my home in Akron, Ohio. That experience led to my decision to become a civil engineer and attend UA.

One of the things that I liked about UA was its co-op program. Through my co-op work experience, I learned first-hand what civil engineers do and ultimately decided that transportation was for me.

At one point in my undergraduate studies, I considered going into church music. Fortunately I had a wise advisor who suggested that I continue in engineering and take music as part of a second degree. I took his advice. To this day piano and organ playing are part of my life.

I was also advised to join ASCE’s student chapter. That was the beginning of my long-time participation in ASCE. Throughout my career and the many moves, I’ve continued my ASCE involvement. Last October I was installed as the ASCE President-elect and will be installed as the ASCE 2015 President this October.

Like my advisor at UA, I’ve served over the years as a mentor for others through part-time university teaching, presentations to ASCE student chapters, and participation in student roundtables at the ASCE Regional Leadership Conferences and student days.

During my career, I’ve worked for a city government and 3 consulting firms. I joined ARCADIS U.S. and served as the Transportation Practice Director. While I retired from full-time employment in 2007, I continue to work for ARCADIS on a part-time basis.

I’ve thoroughly enjoyed the opportunities these jobs gave me to participate in planning, design and construction of various civil projects. These projects have made people’s lives better and safer. After all, isn’t that what civil engineers do?

A couple of project examples illustrate this clearly. The first is the Taipei Metro. In 2009 my wife and I returned to Taiwan and observed many people using the Metro and very few using the motor
Clarence B. Drennon (1975-1996)

I retired from the Civil Engineering Department of The University of Akron in 1996. I still live in Fairlawn, in the same house that I have lived in my entire time in Akron. While my wife and I have traveled a bit, I am usually at home.

My principal activity is with Stan Hywet Hall. I guide at the house two afternoons per week, and have helped clean the house (a six-week, full time job) each winter. Otherwise, I read a lot, with a library of over 4,000 books. I am an operetta and musical enthusiast, and attend the Ohio Light Opera season in Wooster each summer. The wife and I also attend the Shaw Festival in Niagara-on-the-Lake, Ontario, each year.

I now have five grandchildren. My son lives in Rockville, Maryland, and my daughter in Vandalia, Ohio.

scooters which were everywhere 20 years ago. Traffic on the streets and pedestrian safety were greatly improved, improving the quality of life for the people in Taipei.

The second example is the restoration of Bataquitos Lagoon in Southern California. Since its restoration, endangered birds, fish and wildlife are flourishing and the awful smell is gone. The dead lagoon is alive again.

A couple of months ago, we visited the lagoon with my son and 5-year old grandson while on a family vacation in San Diego. What a beautiful walk we had on the trails at the lagoon.

After retirement, we moved to Fort Worth to be only 3 miles away from our grandkids. It’s great to be so close.

Volunteering has been and is an important part of my life. I serve on the American Road and Transportation Builders Association (ARTBA) Board and completed a 3-year term on the EWB-USA Board at the end of 2013. I’ve been on homeowner associations, school, zoning and transportation boards. While each board is different, they have one thing in common, which is to serve their members.

As a volunteer, I’ve participated in almost every facet of ASCE by serving on over 40 ASCE committees including Section/Branch, Professional, Finance, Award, Editorial and Technical.

As the first ASCE President to be nominated by ASCE’s Transportation & Development Institute (T&DI) and the Technical Region, I’m excited to have the opportunity to serve the engineering profession.
I am very pleased and humbled to be writing this short note for the Department of Civil Engineering Newsletter. It all started when I received a phone call from Professor Binienda last July when my wife and I were in Hawaii celebrating our 56th wedding anniversary. We were very happy to be invited to attend the 100th anniversary of the Department in May and plan to be active participants.

Professor Binienda asked me to provide an update of what I have been doing and where I have traveled since leaving the University of Akron. Let me start by letting you know I was a member of the Civil Engineering Department from 1967 to 1978. I arrived in Akron with three sons, Michael, Gene, and Daniel. John was born that October. My memories of being a teacher are all positive. It was a pleasure to be able to work with so many fine men and women students and to watch them mature as individuals, learn engineering concepts and principles, and then move on to engineering practice. To this day, I am in contact with many of my former students. Perhaps one of my most memorable activities was being a part of the concrete canoe program. The program served many purposes as students learned how to work in teams and how to improve designs from year to year. It was also gratifying to watch our team win one competition after another, year after year. Akron was the envy of many schools.

In 1978 I took a position at General Motors Institute in Flint, Michigan as chairman of the Department of Mechanical Engineering. While at GMI, I had the opportunity to teach a NASTRAN continuing education class to GM engineers at the GM Tech Center. After that I returned to my alma mater, Manhattan College, as Dean of the School of Engineering from 1983 to 1992. I was blessed to then have the opportunity to become Dean of the School of Engineering at the University of Dayton. During my five year tenure, I was able to start a minority engineering program and an enhanced engineering program. The latter program was the key to having 90% of the freshman students move to their sophomore year in engineering. It was also responsible for having almost 70% of the students graduate in engineering, which is twice the national average. In 1999 and 2000, I worked for SDRC teaching Ford engineers in Dearborn, Michigan how to use the MCAD program, I-DEAS.

“LESTINGI” continued on page 17
In 1992, Professor Chang retired from the University of Akron and joined Hong Kong University of Science and Technology (UST), as a chaired professor in the Department of Civil & Environmental Engineering. Since UST was a relatively young university in 1992, part of Professor Chang’s duties, in addition to teaching and research, is to recruit highly qualified faculties in structures and civil engineering materials, help the department to set up curriculums for B.S., Master and Ph.D programs, recruit high-caliber graduate students and establish academic collaborations with top-ranked universities in China, such as Beijing, Tsinghua, Tongji Universities, etc.

While teaching at UST, Professor Chang also established research programs in structural health monitoring for long-span bridges, development of computational methods for parallel computing machines, computer-aided-design and data-transfer technology applied to tall-building design. Under these research programs, he has guided a number of Master as well as Ph.D students, leading several journal publications in the related topics. As a result of his research work, he started a high-tech company called TBCAD Technology Limited in 2001 to conduct structural optimization and cost analysis for tall buildings. In this connection, the company has completed about 36 design projects for Hong Kong Housing Department, Sun Hung Kai Property Development Company, Maunsell Engineering Consultants, etc.

In 2004 when reaching the age of 65, Professor Chang retired from UST and his company. Immediately after his retirement, he served as a guest professor at Tongji, Shanghai Jiatong Universities, and later Taiwan University (his alma mater), teaching courses on finite element methods, computer methods in structural analysis, structural dynamics, elasticity and plasticity.

I retired to Tucson, Arizona in 2000 and have enjoyed playing softball three days a week 45 weeks per year. Now that Jean and I have six grandchildren and one great grandson, we will be moving to Mount Juliet, Tennessee to be a little closer to them.

Jean and I hope to have the opportunity to greet many of you at the 100th anniversary of the Civil Engineering Department. I would be pleased to hear from you at pepe.lestingi@gmail.com.
I left the University of Akron in 1991 and joined the Civil Engineering Department at Louisiana State University in Baton Rouge. I continued my work in bridge engineering research, as well as teaching design courses in reinforced concrete and structural steel and structural analysis.

It was a fascinating experience to become immersed in the culture of the south – different (and delicious) food, slightly different way of speaking (y’all), and different temperatures (rarely below 32). It was an enjoyable time for broadening our experiences. We still travel annually to Baton Rouge to reconnect with friends and favorite places.

In 1995 I accepted a position in the Department of Civil Engineering at the U. S. Air Force Academy in Colorado Springs, where Karen and I currently reside since retiring from the Academy in 2006. (The courses that I taught were primarily the same, except for the addition of some statics and strength of materials.) It was a special opportunity to be involved with teaching so many outstanding young men and women from across the entire country.

During the 2003-04 academic year I went on a sabbatical to the University of Maine in Orono and joined a team investigating applications of advanced wood composites. My primary focus was preliminary design and laboratory testing of wood composite components for a pier to be constructed at a nearby Coast Guard station.

Knowing that the nine months would pass quickly, we took advantage of every weekend between Labor Day and Thanksgiving, and between the end of March and Memorial Day, to explore the wonderful coastal towns of “Downeast Maine.” (Winter required staying a little closer to home!) This is also an area to which we return on a regular basis.

Another marvelous opportunity that came our way during my time at the Academy was being able to participate in the semester exchange program between the Air Force academies of the United States and France. During each of the fall semesters over the interval 2000—2013 (except for 2003) we have sponsored one or two French cadets. They spend their first week in the U. S. with us, subsequently check into the
Since retiring in 2009, I relocated to Nashville, TN. Here I am able to spend quality time with two of my granddaughters, I met my sweetheart, and I have done some traveling. I have also taught Fluid Mechanics twice at Vanderbilt University. Teaching Vandy students reminded me of how special University of Akron students are, something I learned when I first arrived in Akron from the University of Florida. I feel fortunate to have spent the majority of my career teaching The University of Akron undergraduate students who are engaged and frequently have been exposed to many of the practical aspects of civil engineering through the co-op program. I feel honored to be associated with Akron graduates, who I would hold up to any graduates in the country.

Karen retired from teaching high school weekends beginning in 2001 and working college matches (Air Force competes in the Mountain West Conference of the NCAA) beginning in 2004. In 2007, freed from the obligation of “regular employment,” I decided to become involved with officiating at the professional level, and can now add “line umpire” to my list of officiating activities. I typically call lines at six or seven professional events each year at various tournaments around the country. In addition, I have also worked the U. S. Open at Flushing Meadows in New York during the last four years and expect to be there again this year.

Prior to retiring from the Academy in 2006 I had become involved with tennis officiating – working local tournaments on
The Honorable Deborah L. Wince-Smith, President and Chief Executive Officer of the U.S. Council on Competitiveness, will serve as guest speaker for the 100th anniversary celebration. Her presentation will be “The Coming Age of Innovation: Engineering the Future of a Turbulent and Transforming Global Economy.” The Council on Competitiveness – comprised of university presidents, CEOs of major corporations, and labor union leaders – promotes public policy to advance America’s competitiveness in the global marketplace.

Ms. Wince-Smith is a leading voice on competitiveness, innovation strategy, science/technology, and international economic policy. She is frequently called upon to testify before the U.S. Congress and is regularly invited to appear on global television news networks such as Bloomberg, BBC, CNBC, CNN and Fox News.

Ms. Wince-Smith has served on the Boards of the Department of Energy National Laboratories, including the University of California President’s Council overseeing the Lawrence Livermore, Los Alamos and Lawrence Berkeley National Laboratories. Ms. Wince-Smith has also served on the University of Chicago’s Board
of Governors for Argonne National Laboratory.

A valedictorian from Old Trail School in Akron, Ohio, Ms. Wince-Smith graduated magna cum laude from Vassar College with a Bachelor of Arts degree. She was one of the first female students to enter King’s College at the University of Cambridge, where she read for a Master’s degree in Classical Archaeology. In 2006, she was awarded an Honorary Doctorate in Humanities from Michigan State University.
mathematics in 1999. She was unable, however, to entirely walk away from the world of numbers. Since that time she works each tax season, early January to April 15, for Jackson Hewitt as a tax prep.

Our son, Matt, graduated from Stow High School in 1991 and went on to obtain a degree in Civil Engineering from the University of Wisconsin – Madison. For the past 18 years he has been a project engineer for UOP (a supplier and licensor of technology for the petroleum industry), which is a division of Honeywell. He was married for a while, no children, and lives in the northwest suburbs of Chicago, in Schaumburg.

Life is enjoyable in Colorado Springs. The front range of the Rocky Mountains is a great place to be, with lots of sunshine and plenty to keep us busy. We commit some of our time to our pastimes/hobbies (tennis officiating and tax work) but we ensure that large blocks of time are available for travel – home and abroad.

At this 100-year celebration for the College of Engineering I look forward to getting together with former colleagues from my time at Akron U to learn about their experiences during the last 20+ years -- which seemed to have passed by so very quickly.