

2021 DISTINGUISHED ALUMNI AWARDS

A celebration of togetherness



Recognizing our 2020 and 2021 honorees

Thursday, December 2, 2021
Hotel Albuquerque

Program of Events

- 5:30-6:30 p.m. Attendees' reception
- 6:30-6:35 p.m. Welcome by master of ceremonies Charles Fleddermann and Dean Christos Christodoulou
- 6:35-7:00 p.m. **AWARD PRESENTATIONS**
- William (Bill) Goodman
J.T. Michelson (2020)
Department of Chemical and Biological Engineering
- John R. D'Antonio Jr., P.E.
Phillip Melville and Thomas L. Paez (2020)
Department of Civil, Construction and Environmental Engineering
- Timothy Gallagher
Barbara Lopez (2020)
Department of Computer Science
- 7:00-7:15 p.m. **BREAK**
- 7:15-8:15 p.m. Atul Bhatnagar (2020)
Nadine E. Miner and Edward Tunstel
Department of Electrical and Computer Engineering
- Andrew Halasz (2020)
Robin L. Stubenhofer
Department of Mechanical Engineering
- Jim E. Morel (2020)
Michael A. Kuliasha
Department of Nuclear Engineering
- Joseph Costantine (2020)
Dino A. Dai Zovi
Young Alumni Award
- 8:15-8:20 p.m. Closing Remarks
Dean Christos Christodoulou

William (Bill) Goodman

Chemical and Biological Engineering

Bronx-born Bill Goodman first planned on becoming a doctor, but a failing grade in organic chemistry ended that dream. However, never to be knocked down by adversity, he found success as an engineer, entrepreneur and even a life coach.

Goodman founded his own business, Goodman Technologies, LLC, in 2016. He is CEO and president of the company, which offers expertise in materials science, advanced ceramics, additive manufacturing, extreme environments (RF systems, shielding, armor and thermal protection), lasers, as well as corporate coaching. The company has won several large government contracts. In addition to owning his own business, he is a technology partner with Vista Business Group and is a member of the Professional Aerospace Contractors Association of New Mexico.



He arrived in Albuquerque in August 1978 and chose UNM because he was a track and field athlete and was offered a chance to be a walk-on for the Lobos, where he later became a letterman. He had never been to New Mexico before, and upon stepping off the ladder of the plane at the Sunport (the days before jetways), he marveled at the blue sky. He earned his bachelor's degree in chemical engineering in 1982. Some of his favorite memories of UNM include seeing concerts at Johnson Gym when big names used to play there. Living in Alvarado Hall, he and his friends discovered a tunnel that would gain them access to the gym, where they could sneak into concerts like REO Speedwagon for free.

He later attended University of California, Los Angeles, where he earned a master's degree in 1991 and a Ph.D. in 1995, both in materials science and engineering. He also completed the Small Business Administration Emerging

Leaders "Streetwise MBA" program in 2019.

Goodman had a transformative experience on May 5, 1992, when he was holding his newborn, feeling incredibly lucky and like everything was coming together in his life. Then the unthinkable happened: his infant son died in his arms. The tragedy forced him to either sink or swim. He chose to swim. As part of his exploration, he became connected with the coaching techniques of famed motivational speaker Tony Robbins in 1997 and has incorporated coaching into his business.

During his career, he has owned three businesses and worked on numerous high-level projects, such as developing the Air Force Advanced Transportation Analysis Code. He has worked in optical manufacturing and optical coatings, and in high-energy laser systems such as the Space Based and Airborne Laser programs for Schafer Corp. in Los Angeles and Albuquerque. He was vice president for Trex Enterprises in San Diego and vice president for Space Systems for ScorpioV in Hawaii. He has had mirror systems he designed fly on four space missions.

He said his greatest career achievement was being named the New Mexico Small Business Association Person of the Year in 2020. Not one to rest on his laurels, Goodman has big goals ahead, such as to become the state's first "unicorn," which is a business owner with a publicly-traded company worth \$1 billion. "I'm just getting started."

He has four children: a sophomore at UNM, a senior and a freshman at La Cueva High School, and an adult daughter in Philadelphia. His hobbies include hockey, weight training, golf and traveling.

Advice to a freshman engineer: "This is what I call the ultimate success recipe: 1). Have 100% certainty about what you **MUST** have; 2). Decide **AND** take action; 3). Evaluate the results of the action; 4). Either achieve what you want or go back to step 2 if needed."

J.T. Michelson

Chemical and Biological Engineering

J.T. Michelson earned a degree in engineering, but his impressive career in management and civic service might suggest that he was a business major.

The Albuquerque native chose to study chemical engineering because he always enjoyed chemistry. He received his bachelor's degree in chemical engineering from UNM in 1962.

While at UNM, he wasted no time supplementing his engineering curriculum with courses in business and accounting. His involvement in business started early, thanks to the family business, Bell Trading Post (later called Sunbell Corporation). The company produced items such as silver and turquoise jewelry, copper products and moccasins. He learned the basics of business working there in high school and college.



After UNM, he earned an MBA from Harvard Business School in 1964, he then returned to Bell Trading Post, holding positions at Sunbell until 1982. He also was board of directors and secretary of the board for Lovelace Health Plan from 1972 to 1982.

For six months in 1982, he left New Mexico after he was selected for a unique opportunity to serve on President Reagan's private sector survey on cost control, where he coordinated the activities of 15 task forces. He said his most vivid memory of that time was not about the task at hand, however: "I played polo on the Washington Mall" (a sport he played for 48 years).

In 1982, after working in Washington, D.C., he became vice president for planning and development for Lovelace Medical Foundation and was also vice president of the Western region/managed care officer for EQUITOR Health Plan until 1987. Later he was appointed vice president and chief operating officer for Lovelace Health Plan and Lovelace Medical Center. In

1989 he purchased Sun Country Industries and was vice president of the company, an aerospace-related manufacturer, until its sale in 2006. He is now chairman of the board for Vibrant NDT and a board member of Lotus Leaf Coatings.

His community involvement has been just as impressive. He was the chair of the New Mexico Angels for a decade and has been a trustee of Lovelace Medical Foundation, a member of the United Community Fund, on the advisory council for the UNM Anderson School of Management, on the advisory board for the Albuquerque Symphony Orchestra, held various leadership positions with Manzano Day School, and was a founding member and president of the New Mexico HMO Association.

Although Michelson never worked as a chemical engineer, he said the education he received from the School of Engineering was key to his future success.

"In my sophomore year, I had Professor Castonguay, and I remember him going to the board and writing the four steps involved to solve a problem — what is given, what is wanted, determining the basis of calculation and coming up with a solution," he said. "I used that method the rest of my life."

He has two grown daughters, Laura and Lynette, four grandchildren, and enjoys life with his partner of 15 years, Loretta, their four dogs, a cat, peacocks and a horse. Although he no longer plays polo, he does enjoy horse riding.

Timothy Gallagher

Computer Science

Timothy Gallagher is a true UNM success story, a prime example of how with hard work and determination, someone with the humblest of roots can rise to the greatest heights.

Gallagher is an entrepreneur, corporate leader and philanthropist who in 1999 founded Texas-based Electronic Transaction Consultants (ETC), one of the most innovative companies in the toll industry and renowned for its advances in highway speed, open-road, all-electronic tolling and unique data-processing platforms.

He grew up in a trailer park in Valencia County, graduating from Los Lunas High School in 1976. At age 14, his father died of a heart attack, leaving his Japan-born mother to support the family with her seamstress skills. Although he became a technology pioneer, he began his studies at UNM in music education, thanks to the help of Pell Grants, VA scholarships (his father was a veteran) and minimum-wage jobs.



He always enjoyed music (playing the trumpet, piano and guitar), but decided that he wouldn't be able to support himself in the music or education industry, so quit his senior year. But his mother persuaded him to finish his education. A self-described "lazy student" in high school, he discovered an aptitude for math and science he never knew he had and enrolled at Technical Vocational Institute (TVI), then took a job at Los Alamos National Laboratory, where he was hired as an electronic technician. He started taking courses at UNM at night and in summers, and eventually earned his bachelor's degree in computer science in 1986.

He returned to LANL, then in 1987, joined AMTECH Systems Corp., an RFID startup, which awakened his entrepreneurial spirit. By 1994, he and a friend formed ABOCO Inc., a boutique private-equity firm where Gallagher eventually made the choice to become a full-time entrepreneur.

In 1997, he founded ETC LLC as a consultant, which led to securing large design and integration contracts that required the transition into a C corporation in 1999. Gallagher served as CEO of ETC until late 2014, after he experienced a life-changing event that stopped him in his tracks: he had a heart attack so severe that he required a heart transplant. "As CEO, you have the power to control almost every detail of your life and business, then suddenly you're just flat on your back totally dependent on others for every detail in keeping you alive. It really changed my focus."

He remained chairman of the board until 2020, then began engaging in volunteer work related to heart disease awareness. He currently is director of TTG Heart Inc., which he founded to socialize the significance that heart disease holds on modern life and to foster charitable giving for the American Heart Association. From 2016-19, he was on the executive leadership team for the Cotes du Coeur in Dallas, raising more than \$13 million. He is also involved in residential and commercial real estate projects that design/develop, manage and renovate old or build new workforce housing in the Dallas/Fort Worth area.

He is married to Terri, and they have a grown son, Greyson.

Advice to a freshman engineer: "I would say three things: 1). Believe in yourself. You're far more capable and your internal reserves are far greater than you realize; 2). Learn the process of structural thinking — thinking like an engineer. I've not yet seen a problem that couldn't be solved; 3). Your long-term achievements in life are based only in part by your childhood dreams and/or limitations, and your adult life outcomes are directly proportional to your desire and drive and less about the daily obstacles."

Barbara Lopez

Computer Science

Barbara Lopez is not the kind of person who likes to sit still. From the time she was born, she's been on the move ever since.

Her father was in the military, so she got a taste of traveling early. Her family roots are in Albuquerque, but she was born in Arizona, and when Barbara was growing up, the family moved to Spain, Virginia, Panama, Argentina, Washington, D.C., then finally back to Albuquerque.

Lopez described herself as a self-motivated student, always striving for good grades. But even though she excelled in school and especially in math, she did not immediately seek higher education, choosing instead to take a job with the government. She was married and working, and it was actually her boss who suggested that she pursue a degree, so she began taking computer science courses at UNM while working full time.



She admitted that pursuing a degree was hard, especially while continuing to work, but her dedication and hard work got her through, and she earned her bachelor's degree in computer science in 1986. "My degree in computer science from UNM changed my life and allowed me to have a rich and varied career in IT," she said.

After graduating, she worked in a variety of positions through the years, including for Science and Engineering Associates, the Air Force Research Laboratory, the director of IT infrastructure at PNM, and the senior director of IT at the New Mexico Gas Company. Currently, she is IT program manager at PNM Resources.

Lopez gravitates to leadership roles – often managing a mostly-male staff – and believes in taking a personal interest in each employee in order to find their unique talents. "I like to get the best out of people. I've always been good at that."

She is dedicated to her career in IT management, but she's equally passionate about a long list of community service, mentoring, volunteer, and networking groups she's involved with. From book clubs, wine clubs, golf, soccer, and kickboxing to serving on the board of the New Mexico Technology Council, the UNM School of Engineering Alumni Advisory Board, and the Domestic Violence Resource Center, her volunteer and community service list is long. She has also mentored girls for the YWCA TechGYRLS afterschool program and at Bellehaven Elementary School Science Fair and has volunteered in numerous other capacities in the community such as Start Up Weekend Women, Albuquerque Reads, Junior Achievement, Roadrunner Food Bank, Best Buddies, and the American Youth Soccer Organization. She was the also the keynote speaker for the fall 2019 School of Engineering Convocation.

And when she's not busy with all of that, she continues to love travel. Even in leaner times, she saved money for this purpose. So far, she's been to 23 countries, including a memorable trip to Paris in summer 2019 to see the Women's World Cup, where she traveled and saw the city by herself, which she said was life-changing. "It was so cool to have all that independence."

When the pandemic hit, she decided to try something new: going back to UNM for an online psychology class. She said it's a way to connect (although virtually) and stimulate her brain. "It brings me back to being a student," she said. She also is an avid Lobo fan, collecting a wide array of Lobo gear. Barbara has three grown sons in Colorado and a granddaughter.

John R. D'Antonio Jr., P.E.

Civil, Construction and Environmental Engineering

Growing up in New Mexico, John D'Antonio enjoyed riding his bike in the arroyos after a rainfall, watching the water flow and observing how the system worked. Little did he know then that one day he would be in charge of the state's water.

D'Antonio is the state engineer of New Mexico, where he oversees water resources, water use permits and compliance, all made more complicated by the well-known water scarcity and climate change effects in the western U.S., as well as issues related to Tribal lands. He frequently deals with legal challenges from other states and makes sure that water is distributed in a fair manner to New Mexicans, taking into account all of these variables.



If that seems like an impossible job, D'Antonio keeps it in perspective, saying that he is often “in the eye of the hurricane,” with chaos swirling around him but he is able to stay above the fray.

“Engineers are problem solvers, and I like to solve big problems,” he said. “I tend to see the glass as half full, not half empty.”

Born the son of a civil engineer, D'Antonio earned his bachelor's degree in civil engineering from UNM in 1979, then joined the U.S. Army Corps of Engineers, where he held a variety of positions around the country for around 22 years, serving in Albuquerque, Atlanta and San Francisco. In between his service there, he worked at the Cabinet level for four different New Mexico governors and was cabinet secretary for the New Mexico Environment Department, director of the Water Resource Allocation Program and a water resources manager for the Office of the State Engineer.

Over the decades, he obtained extensive knowledge of the issues surrounding the Colorado River and Rio Grande Compacts.

He enjoys mentoring younger engineers and serves on the advisory board of the UNM Department of Civil, Construction and Environmental Engineering. He feels that the foundation the department gave him prepared him for success. “You can only go as high as your foundation is strong,” he said.

He especially remembers the times as a student when he performed field surveys, did lab work and tested concrete mix strengths.

“A science-based technical background is very key, and I received a well-rounded education,” he said. “Also, building people skills and developing emotional intelligence — how you apply that knowledge — is very important to success.”

He says despite a lot of responsibility and long hours on the job, he keeps himself grounded, thanks to the support of his partner of 35 years, Cassandra. “These jobs are demanding. A lot of my success has been because of her support.” They have four children and enjoy traveling and playing golf, and they also enjoys supporting UNM athletics.

Advice to a freshman engineer: “Put people first and continue to learn in a variety of areas. Where you shine is where your interests are, so match your interests with your abilities.”

Phillip Melville

Civil, Construction and Environmental Engineering

During his 98 years on this planet, there are a lot of things that Phillip Melville should not have been able to do but did anyway.

For one, he and his family escaped from Europe as the winds of World War II were brewing. The Nazi Germans were beginning to invade parts of France, where Melville and his family lived. He recounts his incredible journey to the United States in a manuscript he wrote in 2013 called “My War Time Journey to New Mexico.” His travels across Europe, the Atlantic and to the shores of the United States and eventually across the country to Albuquerque, New Mexico, took a lot of good faith and good fortune.

Secondly, his admittance to UNM should never have happened, but did, thanks to the efforts of then-UNM President Zimmerman, as well as some well-placed family connections.



Melville's father had a brother, Leopold, who lived in Albuquerque. After Pearl Harbor, the threat of a world war was apparent, and Phillip's father was looking for a safe haven for his son, who was of military age but also had an interest in engineering school. Leopold's wife was part of the prominent Ilfeld family in New Mexico and had the connections to contact President Zimmerman. After the president knew of the plight of Phillip, he made things happen. He put on an official piece of paper that Phillip was accepted as an engineering student (he wasn't) and that he had a full fellowship (he didn't). But coming from President Zimmerman, on UNM letterhead, what hadn't been possible before was now reality. Phillip was in. Additional contacts his uncle had helped Phillip and his family get the needed documents to leave France and enter the U.S. “That was a pretty bold decision,” on Zimmerman's part, Melville said. “It saved me.”

After earning his bachelor's degree from UNM in 1944, he headed to Purdue University to earn a master's degree. After earning his degree in 1945, he found employment in Virginia, and worked as a civil engineer in the area the rest of his life. He was a research engineer for the Virginia Department of Highways, working on cement and concrete technology, and in 1954, he joined the U.S. Army Corps of Engineers in as a civilian civil engineer in the Office of the Chief of Engineers in Washington, D.C. During the Cold War years, he worked on research and development of Air Force base expansion worldwide, and in cooperation with engineers of the Army Waterways Experiment Station, applied U.S. airfield pavement concepts to NATO counterparts. Later, he joined the Federal Aviation Administration to implement airfield pavement concepts to civil airports when larger airplanes began to be introduced.

He also was chief international officer for airports, working with the International Civil Aviation Organization of the United Nations in Canada. In addition, he is a retired P.E. (professional engineer), a Fellow of both the American Society of Civil Engineers and the National Society of Professional Engineers, and has been inducted into the Order of the Engineer. He also has published about 30 technical papers.

Melville enjoys learning new things, which now includes taking a weekly Italian class, even though he says, “I'm not a very good student.” After retirement (“I retired many times,” he said), he enjoyed traveling, and especially appreciated the art and culture of Italy. He's also been involved in various activities, such as establishing a U.S. organization to promote manufacturers of current and future airside hardware, becoming a part-time instructor for candidates of the P.E. exam, and serving as vice president of Sacatec, Inc.

He was heartbroken by the lengthy illness and death of his wife, Sheila, in 2011, but otherwise considers himself extremely fortunate. He has two daughters, Anne and Laura, and four grandchildren and is grateful to have had an enjoyable and productive life. “I hope I have done some good.”

Thomas L. Paez

Civil, Construction and Environmental Engineering

When Thomas Paez first started at UNM, he thought he wanted to be an architect. But a few classes in, he realized that the world of structural dynamics was his passion and switched into civil engineering.

He earned both his bachelor's and master's degree in civil engineering from UNM in 1971, such an enthusiastic student that he was able to finish both degrees at the end of his senior year. And he wasted no time in applying for doctoral programs around the country, applying at MIT, University of California at Berkeley, UNM, University of Illinois, Caltech and Purdue.

"Almost all of them sent me an application for an international student because they thought I was from Mexico," he said.



He ultimately chose Purdue, even though it was the only school not to give him a fellowship offer. He selected Purdue because his advisor at UNM, Jim Yao, had just taken a job there, so he and his wife headed to West Lafayette, Indiana, finishing his Ph.D. in 23 months.

The Albuquerque native, by then married to his high school sweetheart from St. Pius X High School, Eileen, moved back from the Midwest to take a position at Kaman Sciences Corporation in Colorado. In 1975, he accepted an offer to join Sandia National Laboratories in the engineering mechanics department. He was persuaded to leave the Labs in 1977 to return to teaching at UNM, where he worked his way up to associate professor. He continued his research and had the opportunity to serve as an advisor to six Ph.D. students and 10 master's students before deciding to return to Sandia in 1984.

He continued at Sandia until retirement in 2009, first working in the experimental dynamics department, then later the structural dynamics department and the validation and uncertainty quantification department. There, he conducted research and development in random vibration and probabilistic structural dynamics and completed a project started by Dave Smallwood, the first software program to maintain closed-loop control of multiple-input-multiple-output random vibration tests.

Since 2009, he's been retired in name only, keeping busy with various projects and consulting activities with the Air Force Research Laboratory and Sandia. And though he is passionate about research, he enjoys interacting with students, even today. "I love teaching," he said. "I've taught 120 to 140 short courses in 32 years, and four so far this year."

He's worked in academia, private industry and government — all very different positions — but he has grown from all his experiences. "I've been happy with every single job I've had," he said.

Paez credits many professors, advisors and mentors at UNM for his success — Gerald May, Roy Johnson, Cornie Hulsbos and Fred Ju among them.

"I wasn't a very good student in high school. I was more interested in pursuing my wife," he said. "The teachers at UNM were patient in working with me. I don't think I would have stayed in school without them."

He and his wife have two grown sons and a granddaughter, Reina, who is studying biochemistry at Oregon State University. In his spare time, he enjoys hiking, biking and traveling.

Atul Bhatnagar

Electrical and Computer Engineering

When Atul Bhatnagar arrived in Albuquerque, New Mexico in July 1981, it was his first time in the United States. In fact, it was his first flight ever — from New Delhi to Frankfurt, Germany; to Atlanta; then to Albuquerque. He knew no one and owned very little. “My net worth was negative,” he recalls.

But soon, he would be embarking on a fantastic educational journey that would change his life.

Bhatnagar earned a bachelor’s degree in electrical engineering from Birla Institute of Technology and Science in India, but made the trek to the United States for graduate studies, choosing UNM for its excellent reputation in academics and faculty in the Department of Electrical and Computer Engineering. “They had a great microprocessor lab under Dr. Knudsen. I wanted to be a TA in that state-of-the-art lab.”

He received his master’s degree in electrical and computer engineering from UNM in 1982 and since 2013 has been president and CEO of Cambium Networks, a public company whose goal is to create wireless communication products and help eliminate global digital divide by providing broadband connectivity in over 150 countries.



Bhatnagar said that his time at UNM prepared him to be the leader he is today. While at UNM, he also remembers being inspired by Professor Shlomo Karni, Professor Charles Crowley and Professor Delores Etter. “I give UNM credit for the development of who I am today,” he said.

That education allowed him to jump immediately into the rapidly evolving high-technology sector. In 1982, he joined Tektronix in Oregon, then moved into a variety of positions in Silicon Valley after 1985. He was with Hewlett-Packard Company until 2000 in many senior management roles. From 2000 to 2006, he was vice president and general manager at Nortel Networks in Silicon Valley leading Enterprise Data Networks division. He then made the jump to Ixia Communications, where he served as president and CEO.

Cambium’s mission is to “connect the unconnected” in the world via affordable broadband wireless solutions, especially in developing countries. Under his leadership, Cambium IPO’s was listed on the Nasdaq, under symbol CMBM, in June 2019. The company has more than \$250 million in annual revenue and employs about 700 in the U.S., Europe, Asia and South America.

Looking back on his career, he said he has made continuous learning the main focus of his journey. “It has been a tremendous journey from engineer to CEO,” he said. “I never think about goals, but about skills, and every three years, I keep adding a new skill. “The world is changing so fast, you have to keep educating and developing yourself continuously.”

And he has done just that. In addition to his two degrees, he earned an Innovation and Entrepreneurship Certificate from Stanford University in 2015 and also took executive development courses at Harvard Business School in 2015 and 2016 earning a certificate in effective board management.

Bhatnagar is married to Ranjana, who is a graduate of Pacific Oaks College in Pasadena, Calif., with a master’s degree, specializing in early childhood education. She teaches at San Jose City College. The couple has five children: two sons, Ashish and Munish, and three daughters, Vaishali, Vasudha and Radhika. In his spare time, he enjoys gardening, going for long walks with his dog Kona, and using a telescope at night to gaze at the sky.

Nadine E. Miner

Electrical and Computer Engineering

When Nadine Miner was growing up, she did not particularly enjoy taking things apart and putting them back together again, unlike many engineers-to-be. What she did like was math.

“I sat there in math class and things just turned on for me,” she said. “I really nerded out.”

Miner loved math so much, she originally wanted to be a math teacher. But she noticed that her love of math wasn’t shared by a lot of female classmates. She has made it her mission to change that. When she is asked what she does for a living she says, “I’m an engineer,” she is still disturbed by a common reaction: “You don’t look like an engineer. I’m trying to break that stereotype, and it needs breaking.”

Miner was born in Brooklyn, N.Y., but the family moved when she was three to California, then to



Albuquerque when she was 10. She lived here until last year, when she took a new position at Sandia National Laboratories as the Campus Partnership Manager for the Sandia Academic Alliance at the University of Texas at Austin.

She earned a bachelor’s in computer engineering from UNM in 1986, then earned a master’s in electrical and electronics engineering from Caltech in 1989, then earned her Ph.D. in computer engineering from UNM in 1998. Her specialization was in virtual reality and human computer interfaces, robotics and visualization. Her mentors during her UNM years were Delores Etter, who was doing pioneering work in the area of voice recognition; Ed Angel, who specialized in computer graphics; and her PhD advisor, Thomas Caudell.

She joined Sandia in 1987 and has held a variety of roles in machine learning, software simulation and human computer interfaces. She is currently a principal member of the technical staff. Outside of the job, Miner has participated in a wide variety of volunteer activities, especially those revolving around encouraging girls to pursue STEM. She has been a science advisor to Albuquerque Middle School’s science teachers and was a science mentor at Sandia Preparatory School.

She has been married to John (also a UNM Engineering alumnus and Sandian) for 31 years, and they have three children ranging in age from 20 to 25. Her hobbies include outdoor activities like hiking and biking and “extreme sports.” One of her goals is to try skydiving.

Advice she would give a freshman engineer: “There are a lot of core requirements in engineering, but know that they will give you the important foundation you need. Don’t let the core requirements get you down. Find what excites you, and know that you can and will change the world.”

Edward Tunstel

Electrical and Computer Engineering

How does a young engineer from New York City (Harlem, in particular) end up in graduate school 3,000 miles away in the high desert of the Southwest?

The answer lies in a fantastic opportunity.

For Edward Tunstel, that opportunity presented itself in the form of a fellowship that paid his way through his doctoral studies. UNM was on a list of minority-serving institutions, the focus of the fellowship, and Tunstel gravitated toward the types of topics that professors here were studying.

“Albuquerque was a shot in the dark,” he said. “I had never been there before going to graduate school, but I got a good impression.”

He enjoyed the architecture of the Southwest, and even had once considered pursuing architecture as a career.



“I grew up interested in architecture and art and how they work [together],” he said. “But I always enjoyed taking things apart and putting them back together.”

He attended a seminar involving engineers and architects at the New York Academy of Sciences when he was in high school and said a pivotal moment occurred after hearing an engineer speak: “I was fascinated by what engineers did.”

Tunstel earned his bachelor’s and master’s degrees in mechanical engineering from Howard University in 1986 and 1989, respectively, and his Ph.D. from UNM in electrical engineering in 1996.

After graduating with his master’s, he landed a position in the Robotic Intelligence Group (later moving to the Robotic Vehicles Group and the Advanced Controls Group) at the NASA Jet Propulsion Laboratory, Caltech. From 2007-2017, he was at Johns Hopkins University Applied Physics Laboratory Intelligent Systems Center, where he was in several positions, including senior roboticist. From 2017 to 2021, he was at Raytheon Technologies Research Center, where he served in roles including associate director of robotics and group leader for robotics technologies.

Although he has achieved a lot in his career, Tunstel considers a highlight to be working on the Mars Exploration Rovers Spirit and Opportunity in 2003-07.

“I wore multiple hats on that project, and it was an extremely successful mission, resulting in a lot of media attention,” he said. “That was kind of like a Super Bowl for me.”

Starting this year, he became chief technology officer of Motiv Space Systems Inc., which is based in California, but he lives in Connecticut. He calls it a “guru role, but I’m still in the trenches sometimes.”

He is married to Jan, and they have three children. In his spare time, he likes to listen to jazz, draw, but mostly, “What I do for work is what I do for a hobby — robotics. I like figuring things out.”

Advice to a freshman engineer: “Pay attention to what is going on in other disciplines — mechanical engineering, chemistry, social sciences, and others. Things are becoming transdisciplinary. That knowledge makes engineers well-rounded.”

Andrew Halasz

Mechanical Engineering

Anyone who knew Andrew Halasz when he was an engineering student at UNM probably wouldn't be surprised that he turned into a successful businessman.

In high school, he was running a landscaping business, and while a student at UNM, he was running a painting business.

"I always had a drive to build a business," he said. "A high proportion of CEOs have a combination of business and engineering degrees."

Halasz, who received a bachelor's degree in mechanical engineering from UNM in 1981, is the founder and CEO of Vizzia Technologies, a Santa Fe-based healthcare technology business he founded in 2005. The company helps healthcare organizations improve their operational efficiency and has helped hospitals save millions of dollars in expenses and improve patient care. In August of this year, Vizzia was recognized as one of America's fastest-growing private companies on the Inc. 5000 list for the third year



in a row. Only 10% of companies make the list three years in a row. Halasz also funded and created the Vizzia Internet of Things lab in the Department of Electrical and Computer Engineering and made another investment this past year to staff the lab with a full-time lab manager.

He started his career at Phillips Petroleum in the plastics industry as a technical sales engineer, which allowed him to combine his UNM engineering degree with his experience in high school when he worked as a night-shift supervisor in a plastics factory. He later joined General Electric, where his career progressed from sales to marketing, product management and into senior management positions. He completed the Advanced Management Program at Harvard Business School and then became chief information officer and senior vice president of global operations for Recall Corporation, a global document management company, before starting his company.

He said having an engineering background was helpful in business because it helps you break down problems and solve them. "That skill is helpful no matter what part of business you work in."

He was influenced to go into mechanical engineering for two primary reasons: he liked the tactile nature of that branch of engineering, and his father was a mechanical engineer and inventor who holds many patents on the design of the aluminum can and the various machines that make them.

He has very fond memories of his time at UNM — some academic, some personal. He admits the social side dominated his early years (when he pledged the fraternity Phi Gamma Delta), but he gained some lifelong skills (and met his wife, Kerry).

"I was very shy coming into UNM, but my time here allowed me to not only get a great education but also helped me develop my social skills. I'm still in active contact with my pledge class, who are lifelong friends," he said. "The engineering curriculum was demanding and required me to focus in order to succeed. Each time I solved a tough problem, it gave me more confidence which also helped bring me out of my shell."

Along with his wife, he has three daughters, Erin, Sarah and Katy, and four grandchildren. He enjoys woodworking and playing golf.

Robin L. Stubenhofer

Mechanical Engineering

Robin Stubenhofer has spent her entire career since earning a bachelor's degree in mechanical engineering from UNM in 1985 in various roles at Honeywell in Kansas City.

She currently serves as the Vice President of Engineering with Honeywell Federal Manufacturing and Technologies, which manages and operates the Department of Energy's Kansas City national security campus. In that role, she is part of a leadership team overseeing more than 5,500 employees split between Kansas City and Albuquerque, providing engineering, manufacturing and security sourcing services for national security.

Stubenhofer grew up in Albuquerque, but was a self-described "NNSA [National Nuclear Security Administration] brat," with her chemist father moving the family to a couple of different NNSA complex



cities, including Boulder, Colo., and Amarillo, Texas, before ending up in Albuquerque. She said she was influenced by her father to choose her career, and the fact that she loved math and science. "Everyone told me, 'You should be an engineer. You can have your choice of careers.' "

She said that although she had many options of where to attend engineering school, she chose UNM because it was where she lived already, it was competitively priced and "it felt the most comfortable and offered more than the others."

Stubenhofer said something that has always been important to her in her life is balance. Engineering can be intense, so she sought out a different college experience than many of her peers. "I was a sorority girl," she said, pledging Delta Delta Delta and living in the sorority house with her "sisters" (and the house at the time was across the street from a fraternity where a lot of engineers lived). "That experience forced me to be a leader, and in my senior year, I was president of the sorority."

Although she said a lot of the members were in majors that didn't require as much studying as engineering did, it made her appreciate how to get along and interact with those who think differently.

"The world is not made up of engineers," she said. "It gave me a different perspective and is what shaped me. It's really helped me interact with those from various backgrounds and interests at Honeywell and in the community."

She has taken on a lot of important and high-level projects at Honeywell, but she said the one that she is the most proud of is the Safeguards Transporter, where she worked with Sandia National Laboratories and federal customers to design and deliver a trailer truck design that can safely and securely transport nuclear weapons across roadways. "The people of that project are my heart and my soul."

Stubenhofer said outside of the job, she enjoys participating in K-12 STEM-related mentoring activities both in the Kansas City area and at various universities, including most recently at UNM, with the ultimate goal to increase the STEM talent pipeline. She also enjoys taking long walks, reading ("but only fiction") and spending time with her husband, Scot, and three children, who range in age from 17 to 27.

Advice to a freshman engineer: "Coursework is important, but it's important to find a balance and a community. There is life beyond engineering."

Michael A. Kuliasha

Nuclear Engineering

Michael Kuliasha hails from Albuquerque's South Valley, and his family has strong UNM roots, with several members earning degrees in engineering, including his father (civil engineering) and sister (nuclear engineering).

"I was accepted to Stanford, but unfortunately I was about \$30,000 short, so I decided to stay in Albuquerque and go to UNM."

Kuliasha is currently the Director of the Nuclear Technologies Department of the Defense Threat Reduction Agency (DTRA) at Fort Belvoir, Va., and is a member of the Senior Executive Service.

It was a high school physics teacher at Albuquerque Academy who first got Kuliasha interested in math and science, and he first set his sights on becoming a physician. He started UNM as a math major (earning a bachelor's degree in 1974), but decided to switch into engineering when he made a startling discovery: "I had a bit of a problem – I didn't like being around sick people."



He proceeded to meet with all of the department chairs in engineering to determine his best fit for graduate school and was sold when Dr. Robert Long, then chair of the Department of Chemical and Nuclear Engineering, offered him a traineeship that would pay for his graduate school. He and Robert Busch (now professor emeritus in nuclear engineering) were "lab rats," teaching lab courses in the department. Kuliasha earned his master's and Ph.D. in nuclear engineering in 1976 and 1980, respectively.

He spent 30 years at Oak Ridge National Laboratory (ORNL) in Tennessee, serving in a variety of positions, including Chief Scientist for National Security Technologies; Director of Homeland Security; and acting Associate Laboratory Director for Computing, Robotics, and Education. From 2007-2010, he was loaned to the Air Force to become the Chief Technologist of the Air Force Research Laboratory at Wright Patterson Air Force Base in Dayton, Ohio.

Upon returning to ORNL, Kuliasha realized that "I loved the Department of Defense culture so much that I retired from ORNL and took a job as the Director of the Nuclear Technologies Department at DTRA, which is the successor to the Manhattan Project." He joined DTRA in 2011 and is still leading a \$200 million-per-year nuclear technology research and development program. He was detailed to the Pentagon to be the Deputy Assistant Secretary of Defense for Nuclear Matters in 2017-18 and was a contributor to the 2018 Nuclear Posture Review before returning to DTRA.

Kuliasha said he has had many career successes, but considers the national security international engagements in places like the DMZ in Korea, Hong Kong, Pakistan and with NATO to be highlights. "We are part on an international community. It's a cool job."

His hobbies include skiing, gardening and being a car gearhead. After playing in high school and as an adult, he is planning on "getting back into tennis" after knee surgery. He also enjoys spending time with his wife, Julia Suzanne, four children, and three grandchildren.

Advice to a freshman engineer: "It's all about relationships — the friends you make as you go along. I still have friends I first met 50 years ago."

Jim E. Morel

Nuclear Engineering

Jim Morel was drawn to Albuquerque by two things: the Air Force Weapons Laboratory (now the Air Force Research Laboratory) at Kirtland Air Force Base and the UNM nuclear engineering program.

He earned a bachelor's degree in mathematics in 1972 from Louisiana State University, and through his participation in ROTC, was commissioned a second lieutenant in the Air Force the day he graduated. He was given a delay from active duty to attend graduate school, and received a master's degree in nuclear engineering from LSU in 1974. He then sought a delay to pursue a Ph.D., but he was told that he would have to go on active duty. After some investigation, he decided that an assignment at AFRL would be ideal since it was an outstanding laboratory and he could pursue a Ph.D. in nuclear engineering at UNM



during his assignment. He arrived in Albuquerque in September 1974 as a nuclear research officer at AFRL, enrolled at UNM in January 1975, and started a Ph.D. working with then-professor Ron Knief. After a couple of years, he moved on to a position at Sandia National Laboratories.

He said he greatly appreciates the support of his supervisors at both AFRL and Sandia for his pursuit of a Ph.D., as well as the fact that the nuclear engineering department did everything possible to accommodate graduate students who worked full time.

Morel said he wanted to be a physicist since he was 8 years old and dreamed of working at Los Alamos. But the aerospace industry crash in the 1970s meant that no one was hiring, so he switched his focus to nuclear power. After earning his Ph.D. from UNM in 1979, he stayed on at Sandia until 1984, when he switched to Los Alamos National Laboratory, where he rose up the ranks over the years, eventually becoming a group leader and senior staff member. While conducting research in radiation transport, neutron transport and charged-particle transport, he also made UNM history during his years at Los Alamos, becoming the first National Laboratory Professor at UNM in 2004.

He then took an academic position at Texas A&M (TAMU) in College Station. He is now the director of the Texas A&M Center for Large Scale Scientific Simulations (CLASS), as well as the director for the Center for Exascale Radiation Transport (CERT). CLASS promotes multi-disciplinary computational research collaborations across TAMU, as well as collaborations other universities and national laboratories. CERT is one of six centers in the nation funded by the Predictive Science Academic Alliance Program (PSAAP-II) of the National Nuclear Security Administration. CERT performs predictive science research relating to massively-parallel thermal radiation transport calculations at the exascale level.

His list of honors and accomplishments during his career has been extensive, including receiving the LANL Distinguished Performance Award in 1992, the Department of Energy Weapons Program Award of Excellence in 1994, becoming a Fellow of the American Nuclear Society in 2010, and receiving the Gerald C. Pomraning Memorial Award (Mathematics and Computation Division) from the American Nuclear Society in 2017.

Having worked in both in the national labs and academia, he said he enjoys academic work because of its many rewards. In addition to doing innovative research (he said he is most proud of his work in radiation transport), he likes most of all inspiring new generations. "It's very rewarding to work with young people," he said. "It keeps you young. Every time you teach a course, no matter how many times you have taught it, you learn something new. This has always amazed me."

His hobbies include golf and scuba diving.

Joseph Costantine

Distinguished Young Alumni Award

One could say it was UNM's world-famous reputation in electromagnetics that attracted Joseph Costantine to graduate school in the Department of Electrical and Computer Engineering.

Costantine, a native of Lebanon, knew from the time he was in high school that he wanted to go into a technical field. He earned his bachelor's degree in electrical, electronics, computer and communication engineering from the Lebanese University in 2004, then went on to earn a master's degree in computer and communication engineering from the American University of Beirut in 2006.



It was in 2006 when he was in Munich, Germany on a scholarship as an exchange student finishing his master's degree where he discovered he wanted to earn a Ph.D. There, he met a professor named Max Costa (now in Brazil) who had taught at UNM and was at the time a visiting professor at the Technical University of Munich.

"He asked me if I wanted to research RF and antennas at UNM because he knew it was a good place to be. And not long after that, I received a phone call from my brother, who was in school in Cincinnati, who said I should come to UNM to get a Ph.D. because he had heard of its reputation in the electromagnetism area of research. After that phone call, I checked the ECE website and wrote an email to the chair of the department at the time, Professor Chaouki Abdallah, who replied immediately with plenty of encouragement to apply."

Costantine's Ph.D. advisor was Christos Christodoulou, now dean of the School and one of the foremost experts in reconfigurable antennas and RF. He said his time at UNM allowed him the freedom to develop both academically and personally.

"I was exposed to all kinds of ideas," he said. "I was given the responsibility to lead other graduate students and try new and innovative research directions. Christos never said no to an idea. He would say, 'Try it, study it, analyze and see how it goes.' " As a result, Costantine developed a new theory in using graph models to optimize reconfigurable antennas and arrays. He also grew close to his graduate school family, getting involved in a lot of theater in Albuquerque. "Christos attended all of my plays," he said.

After time as a postdoctoral researcher under Christodoulou, private industry in Santa Fe and academia at California State University in Fullerton, as well as stints at Air Force Research Laboratory at Kirtland Air Force Base, he has come full circle. In 2013, he returned to his native country, where he is an associate professor of electrical and computer engineering at the American University of Beirut, which is a U.S. institution of research chartered by the state of New York.

He enjoys the field of electromagnetics because there are "a lot of practical applications in all that we do." He especially enjoys academia because it gives him a way to utilize some of his pastimes — theater and writing.

"I think I was born to be a professor," he said. "I like teaching. It's a way of expressing myself and getting students excited about electromagnetics. I can make a lot of impact, and advance technologies by inspiring young minds."

He considers his career highlights thus far as being honored this year by the World Economic Forum for his cutting-edge research and as one of the 25 scientists under the age of 40 that are tackling global health challenges, winning the Teaching Excellence Award at his institution in 2019, and winning this award. "I feel so blessed to have found UNM."

Dino A. Dai Zovi

Distinguished Young Alumni Award

Dino A. Dai Zovi was born near Chicago, but was raised in Albuquerque since the age of three, thanks to his parents deciding they'd had enough of the harsh winters of the Midwest.

"It was the winter of 1983 that did it for them," he said. According to the records, Dec. 24, 1983, had one of the lowest temperatures in Chicago's history at 25 below zero. "My mom had traveled through Albuquerque as a kid and always remembered it as a place she liked, so my family decided to uproot and move across the country."



Graduating with a bachelor's degree in computer science from UNM in 2002, he hit the ground running, landing a series of security-related positions in New York City. He is currently the head of security at Cash App, a division of Square. Before that, he was founder and chief technical officer at startup Capsule8 and worked in various cybersecurity positions at Square.

During his career, he has exposed numerous security vulnerabilities in the software of computers, mobile phones and network devices. He has been a "hacker in residence" at New York University Polytechnic School of Engineering, and in 2008, he was named one of the 15 Most Influential People in Security by *eWeek* magazine. He was named this after single-handedly winning the first PWN2OWN contest at CanSecWest in 2007 by finding and exploiting a remote zero-day vulnerability in MacOS X. He considers one of his career highlights to be giving the keynote address at Black Hat USA 2019.

Dai Zovi attended Manzano High School and began interning at Sandia National Laboratories between his junior and senior years, where he was what he called a "hacker kid" — a programmer who was hired by governmental partners to try to break their security as part of Sandia's Information Design Assurance Red Team. He earned his security clearance about the same time as he got his driver's license.

"I have been coding since I was in elementary school," he said.

He wanted to keep his position at Sandia, so decided to enroll in computer science at UNM. He said the opportunity to work at Sandia really gave him an edge as a student. "It was the hands-on programming experience that kept me at UNM," he said.


Dai Zovi fondly remembers former computer science professor David Ackley. "I really liked his teaching style. The first time I heard him lecture, I thought, 'This guy is amazing.' "

During the pandemic, living in New York City, he picked up the hobby of cooking (he especially enjoys Italian) out of necessity, as restaurants closed down for a time.

Advice to a freshman engineer: "Even as you're learning theory, stay grounded in the real systems. Read supplemental texts and learn not just what is taught in school."

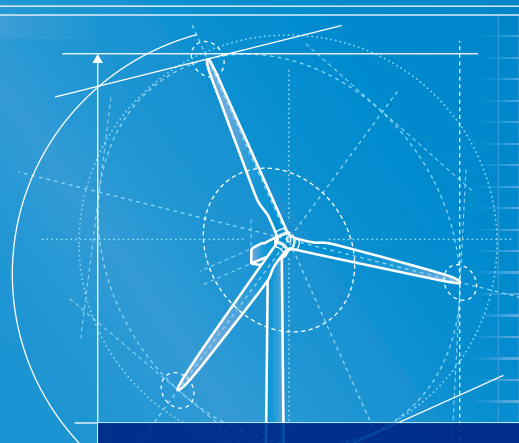
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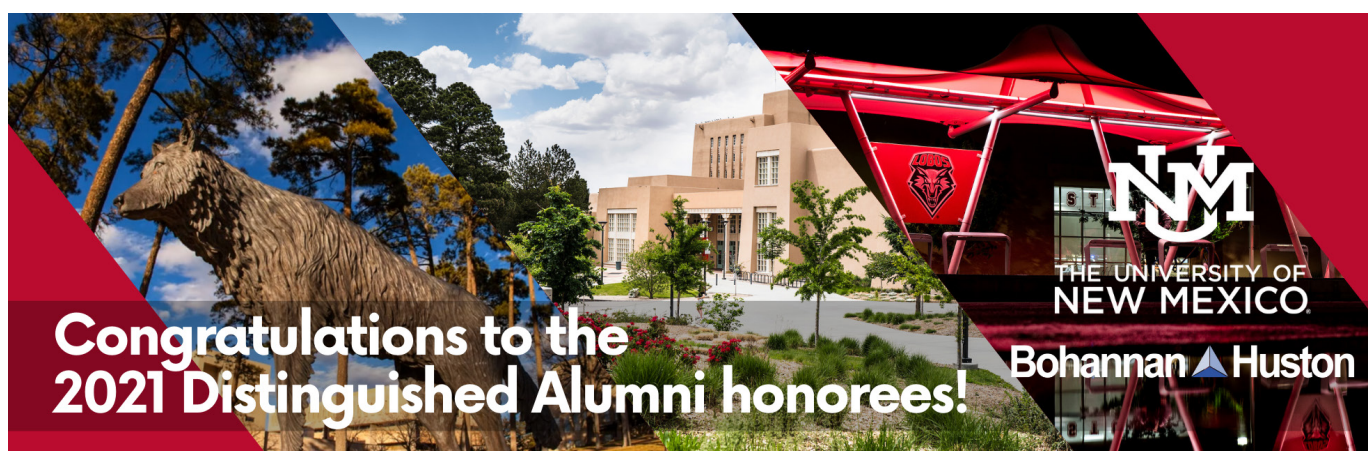
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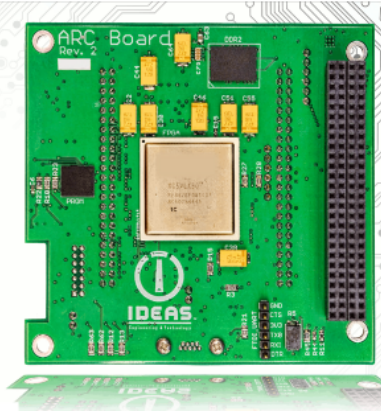
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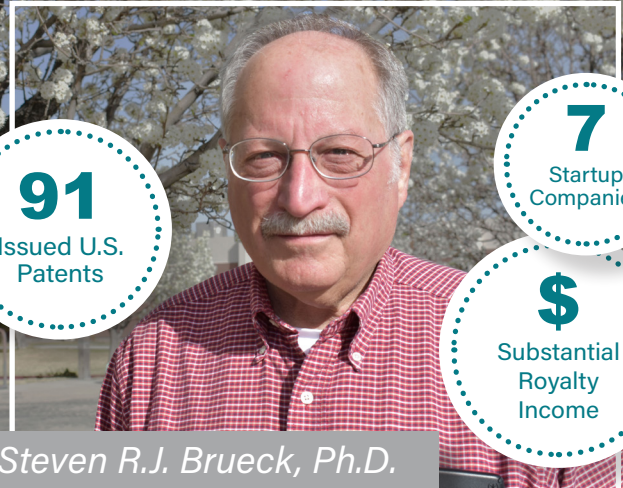
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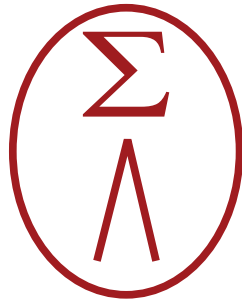


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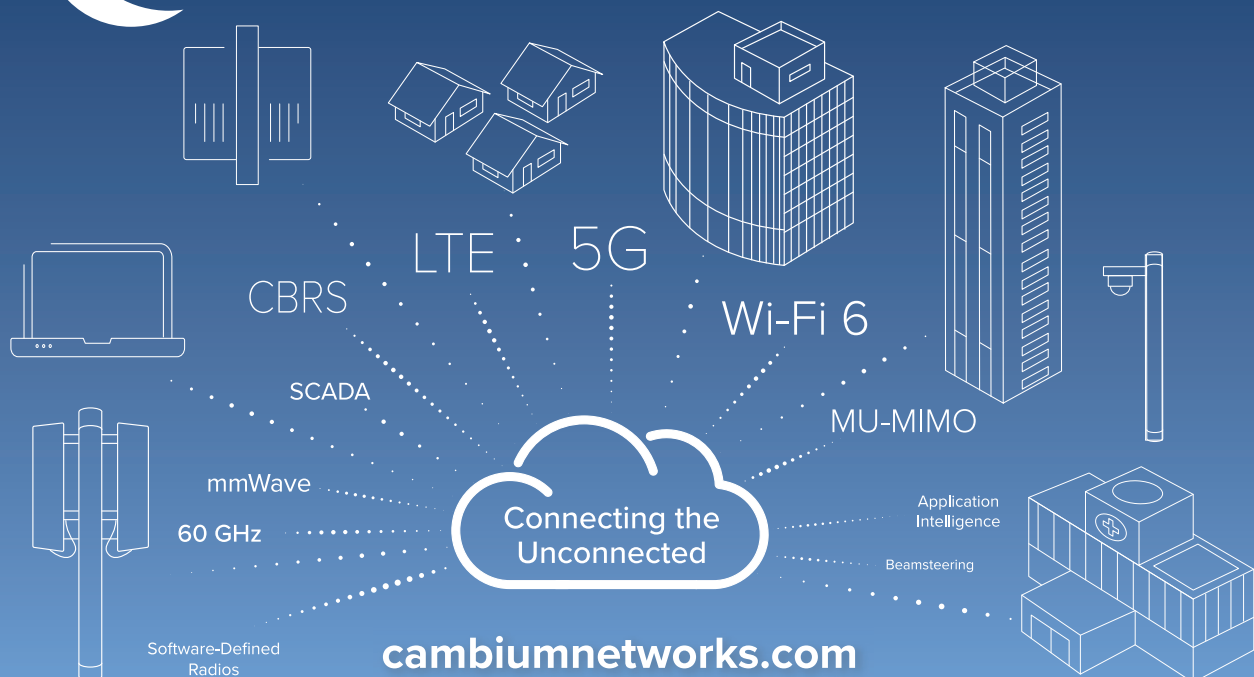
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