# UTSA. Business

2018 ANNUAL REPORT







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UTSA BUSINESS IS AN ANNUAL PUBLICATION FOR ALUMNI, FACULTY, STAFF AND FRIENDS OF THE UTSA COLLEGE OF BUSINESS.

# 13 DIGITAL REVOLUTION

Leading the way in cyber security and data analytics, the UTSA College of Business is harnessing technology to solve today's business problems.





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# DEAN'S MESSAGE



Now is an exciting time to be at UTSA! Under the leadership of President Taylor Eighmy and new Provost Kimberly Andrews Espy, UTSA is pursuing an aggressive strategy to transform into a world-class institution.

Just last month UTSA received \$70 million from the UT System Board of Regents for the construction of a National Security Collaboration Center (NSCC) and a School of Data Science in downtown San Antonio. The NSCC will serve as a hub for government, university and industry partners in cyber security. The School of Data Science will house UTSA's faculty members in cyber security, cloud computing, data and analytics and artificial intelligence.

As part of these initiatives, both the college's Department of Information Systems and Cyber Security and statistics faculty will be located in this facility. In support of the downtown initiative, UTSA will request \$126 million in tuition revenue bonds to construct a new Business Building co-located with these facilities. Look for big changes on the horizon for the College of Business.

Recognizing that it has been five years since we developed our current strategy, it is time for us to assess our progress, examine our goals and align our vision and strategy with the university. This fall we'll solicit input from faculty, staff, students, alumni and business leaders as we embark upon the COB strategy 2.0.

This process reminds me of an analogy I once heard from Stephen Covey. He observed that when planes fly from point A to point B, we generally don't think about how they proceed. Rather than flying a constant direct course, pilots constantly check their bearings and make small adjustments along the way to stay on course. Our organizational strategy needs to go through similar periodic adjustments to assure we stay on target. This is even more critical when the intended destination changes! With new university leadership and an accompanying new set of goals, it is time to assess how we're doing relative to the new university vision.

Our faculty and staff have done a phenomenal job advancing the college toward the goals we established five years ago. We set out to grow enrollments, advance our reputation, improve our scholarship and align our academic programming with areas of high-workforce demand. Our total enrollments have increased by approximately 1,700, and graduate enrollments have increased over 50 percent in the past five years! The college has been ranked among the best undergraduate programs in the country by *Bloomberg Business-Week*, and our cyber security program is ranked as the top program in the country!

Our faculty's research productivity has increased significantly; for the first time, our college has been ranked as one of the top 100 in the country for research. Our new academic programs have proven to be well aligned with employer needs and were instrumental to our growth in graduate enrollments. Finally, our enrollments in cyber security programs have been nothing short of explosive. We have come a long way in the past five years. Now it is time to assess where we sit relative to President Eighmy's new goals for UTSA. Illustratively, President Eighmy has declared that in the next 10 years UTSA will grow from 33,000 to 45,000 in total enrollment—with the College of Business accounting for a significant portion of that growth. It's time to dive into our strategy again to make sure we are aligned with these new realities. It will be an exciting process!

Another goal President Eighmy has set is for UTSA to reach Carnegie Research Intensive University status (e.g., R1 status). We will need to assess what this means for the College of Business, but in general it implies we push forward on improving our scholarly contributions and continue to improve our doctoral programs.

At the executive level, our Center for Professional Excellence has developed a full slate of programming including workshops, boot camps and certificate programs that will be open to the public. This expands on programming already offered by the center including our Executive MBA and customized leadership programs. At the master's level, we continue to work with regional employers to investigate potential opportunities for new degree and certificate programs to help keep their workforce trained and the next generation of leaders prepared for new challenges.

All of these changes present new opportunities for the College of Business. Our new reality is very different than the one faced in previous decades, but the work that we invest now will benefit the futures of not only our students, but also those of our alumni and the city of San Antonio.

Wm. Gerard Sanders
DEAN AND BODENSTEDT CHAIR
UTSA COLLEGE OF BUSINESS

# IN THE NEWS



# UTSA College of Business Receives \$2 Million Grant to Train National Security Analytics Cyber Workforce

The UTSA College of Business received a \$2 million grant from the Defense Intelligence Agency (DIA) as part of its Intelligence Community Centers of Academic Excellence Critical Technology Studies Program.

The grant will allow the college to expand its current Master of Science in Data Analytics (MSDA) program to offer a new track in analytics cyber intelligence; launch an intelligence studies certificate program; award scholarships and stipends to select program participants; collaborate with academic and industry partners on cyber analytics research and training; and work with the intelligence community to promote internship and job opportunities.

"The College of Business has positioned itself as a leader in the fields of cyber security and big data analytics," said **Wm. Gerard Sanders**, dean and Bodenstedt Chair of the UTSA College of Business. "We look forward to partnering with DIA on this prestigious grant. It further enhances the reputation of the college's Master of Science in Data Analytics program."

Led by business faculty members **Max Kilger**, director of the Data Analytics program, and **Paul Rad**, associate professor in the Department of Information Systems and Cyber Security, the three-year grant will run through 2021.

"We are providing a critical pathway of analytics and cyber education to train the national security workforce," said Kilger, a nationally known cyber security expert.

Graduates of the MSDA Critical Technology Studies program will have not only expertise in data analytics techniques, but also training and experience in applying these techniques in the cyber domain with an emphasis on intelligence analytics.

Six new courses in intelligence studies and national security applications will be developed for the Critical Technology Studies Program. Coursework includes The Role of U.S. Intelligence in National Security; Intelligence Reasoning and Analysis; Methods in Intelligence Collection; Analytical Writing, Reporting and Briefing to the Intelligence Community; National Security and Human-Digital Technology Relationships; and Analytic Methods, In terpretation, Writing and Briefing of Cyber Intelligence Data.

Leveraging UTSA's newly-established National Security Collaboration Center (NSCC), the college will engage with partners in the intelligence community including the Army Research Laboratory, the 25<sup>th</sup> Air Force and Booz Allen Hamilton.

The College of Business will also establish an academic consortium with five South Texas universities. Consortia faculty and students will collaborate on research, participate in academic boot camps and network with local, regional and national intelligence community experts.

The college launched its Master of Science in Data Analytics program in 2016. The program produces highly-skilled and educated data analysts who can convert the growing amount of data confronting all organizations into usable information for decision makers across a variety of disciplines.



# Gomez Presents Frost Lecture

**Lorenzo Gomez**, chairman of The 80/20 Foundation and Geekdom, presented the keynote address at the UTSA College of Business Frost Distinguished Lecture Series on November 15.



# College Expands Executive Programs

With a focus on creating a collaborative learning environment for local professionals, the UTSA College of Business Center for Professional Excellence (CPE) has expanded their partnerships as well as their program offerings within the business community.

This past year the CPE has presented customized professional development programs in artificial intelligence, analytics, health care leadership and project management for companies including Chase and UT Health San Antonio.

"To remain competitive, companies must reinvest in educational opportunities for their leaders and managers," said **Wm. Gerard Sanders**, dean and Bodenstedt Chair of the UTSA College of Business. "By leveraging the deep knowledge base of our faculty, San Antonio companies are finding value in developing customized programs with us for their employees."

The newest programs were launched this fall in partnership with UT Health San Antonio. First, the college's Executive MBA

was expanded to include a health professions track. Six of the eight participants in this new track are sponsored by UT Health San Antonio. Additionally, the CPE has developed a yearlong Executive Development Program for Emerging Health Leaders with the Long School of Medicine.

The CPE has also rolled out an array of workshops, boot camps, certificate and signature programs through its Leadership Institute. The programs are flexible in course length and delivery method and range from three-hour workshops to 12-month certificate programs.

"This unique approach allows participants to customize their learning experience and diversify the courses they want to take—empowering them to navigate their own professional development," said **Kathryn Keeton**, associate director of executive programs in the UTSA College of Business

Coursework covers areas such as negotiation and conflict management, big data, diversity and inclusion, employee engagement and strategic decision making. UTSA Continuing Education Units are available to participants for most executive education programs.

For more information about executive education programming, visit execed.utsa. edu to view current offerings and register for courses.

# COLLEGE OF BUSINESS ENROLLMENT GROWTH 5,807 UNDERGRADUATES TOTAL ENROLLMENT 130% INCREASE SINCE FALL 2013 FALL 2018 FALL 2018

# FACULTY FORUM

# COLLEGE AWARD WINNERS

### **DAVID HAN**

Associate Professor of Management Science and Statistics

E. Lou Curry Teaching Excellence Award

### **RAYMOND CHOO**

Cloud Technology Endowed Associate Professor in Cyber Security

Col. Jean Piccione and Lt. Col. Philip Piccione Endowed Research Award

### **VIPIN AGRAWAL**

Associate Professor of Practice in Finance

Dean's Teaching Excellence Award for Non-Tenure-Track Faculty

### **DEEPA CHANDRASEKARAN**

Assistant Professor of Marketing

Dean's Teaching Excellence Award for Tenure-Track Faculty

### **JONATHAN CLARK**

Associate Professor of Management

Dean's Research Excellence Award for Tenure-Track Faculty

### **KAREN WILLIAMS**

Professor in Practice in Information Systems

Patrick J. Clynes Endowed College of Business Excellence in Service Award

### **JEFF BOONE**

Professor of Accounting

Endowed 1969 Commemorative Faculty Award for Overall Faculty Excellence



# Zhang Named Frost Endowed Professor

**Yinlong (Allen) Zhang**, professor of marketing in the UTSA College of Business, has been named the Tom C. Frost Endowed Professor in International Business.

"The College of Business honors Allen's exemplary hard work and dedication to his research by bestowing this professorship upon him," said **Wm. Gerard Sanders**, dean and Bodenstedt Chair in the UTSA College of Business. "Throughout his career he has been a prolific and high-level researcher for the Department of Marketing."

A member of the UTSA faculty since 2004, Zhang's key research interests include consumer psychological issues and their marketing implications for globalization and cross-cultural differences.

"The global order is breaking down. Companies cannot take for granted that they are part of a global marketplace," said Zhang. "Marketers must also be aware of how an individual's global identity affects their purchases."

Zhang has published numerous academic papers in prestigious national and international journals such as the Journal of Marketing, Journal of Consumer Research, Journal of Marketing Research, International Journal of Research in Marketing and Personality and Social Psychology Bulletin.

"I'm appreciative of this recognition. It showcases the value that the College of Business has placed upon my research efforts," he said.





### **CHINO RAO**

Professor of Information Systems

### **DAVID SILVERA**

Associate Professor of Marketing

### **DON SIMMONS**

Senior Lecturer in Management Science and Statistics

### **JUDE VALDEZ**

Senior Lecturer in Management

### **PAULA VARSON**

Senior Lecturer in Finance

### **DIANE WALZ**

Professor of Information Systems

### **JOHN WARREN**

Associate Professor of Information Systems

### NEW TENURE-TRACK FACULTY



SHANNON L. MARLOW Assistant Professor of Management Ph.D. Rice University



Assistant Professor of Management Science & Statistics Ph.D. University of Illinois at Urbana-Champaign

YEONJOO PARK



ANTHONY RIOS
Assistant Professor
of Information Systems
and Cyber Security
Ph.D. University
of Kentucky



ARKAJYOTI ROY
Assistant Professor of
Management Science
& Statistics
Ph.D. Purdue
University



DIAN WANG
Assistant Professor
of Marketing
Ph.D. Texas A&M
University



WENBO WU
Assistant Professor of
Management Science
& Statistics
Ph.D. University
of Georgia

# Clark Named Management Chair

**Jonathan Clark**, associate professor, has been named the new chair of the UTSA College of Business Department of Management. He will serve a three-year term.



"I thank Jonathan for his willingness to serve in this important capacity," said **Wm. Gerard Sanders**, dean and Bodenstedt Chair of the UTSA College of Business. "His leadership will help raise the profile of the department."

Joining the UTSA faculty in 2015 after spending five years on the faculty at Penn State University, Clark's research and teaching interests are in strategic management. To date, his work has addressed issues broadly related to strategic leadership, organization design and organization learning, with a special emphasis on how these issues play out in the health care industry.

"I'm humbled by this opportunity," said Clark. "I have the privilege of working with world-class faculty and colleagues. In any organization, your most important resource is your people, and we have great people in the Department of Management."

His research has been published in the Academy of Management Journal, Management Science, Organization Science, Health Affairs, Health Care Management Review and Leadership Quarterly.

Clark holds a Ph.D. in health policy/management from Harvard Business School and a master's from the Harvard School of Public Health.

# Information Systems and Cyber Security Department Expands



Seven new full-time non-tenure-track faculty members joined the Department of Information Systems and Cyber Security this fall due to the explosive growth in the college's cyber security program. In the past three years, the cyber security major has grown 350 percent.

The new hires are **Robert Castaneda**, associate professor in practice; **Robert Kaufman**, lecturer

III; William Pugh, assistant professor in practice; Yvette Sands, lecturer II; David Teneyuca, assistant professor in practice; Marco Villarreal, assistant professor in practice; and Xiaolu Zhang, assistant professor in practice.

# **Faculty Accolades**

### **TENURE**

### **JONATHAN CLARK**

ASSOCIATE PROFESSOR

Department of Management

### **BRUCE RUDY**

ASSOCIATE PROFESSOR

Department of Management

### **PROMOTION**

# MICHAEL McDONALD Professor

Department of Management

# **KEFENG XU**Professor

Department of Management Science and Statistics

## FACULTY MENTOR AWARD FOR UNDERGRADUATE RESEARCH



### **MARK LEUNG**

Chair of Management Science and Statistics

**Associate Professor** 

AWARDED BY THE UTSA OFFICE OF THE VICE PRESIDENT FOR RESEARCH

### **BEST PAPER AWARDS**



### H. RAGHAV RAO

AT&T Distinguished Chair in Infrastructure Assurance and Security

### ROHIT VALECHA

Assistant Professor of Information Systems and Cyber Security

"A Prediction Model of Privacy Control for Online Social Networking Users"

AWARDED AT THE 13TH INTERNATIONAL CONFERENCE ON DESIGN SCIENCE

RESEARCH IN INFORMATION SYSTEMS AND TECHNOLOGY

"Modeling Public Response to Data Breaches"

AWARDED AT THE AMERICAN CONFERENCE ON INFORMATION SYSTEMS



### ELWOOD BUFFA BEST DISSERTATION AWARD



### **DEEPA WANI**

Assistant Professor of Management Science and Statistics

"Investigating the Role of Internal Hospital Factors and the External Environment on Healthcare Quality Outcomes and Patient Choice"

AWARDED BY THE DECISION SCIENCES INSTITUTE

# SAN ANTONIO CYBER HALL OF HONOR



### ROBERT KAUFMAN Lecturer III in Cyber Security

AWARDED BY THE CYBER TEXAS FOUNDATION

# STUDENT SPOTLIGHT





# Business Students Visit Dallas Corporations

Nineteen UTSA business students traveled to Dallas to learn about business opportunities at area Fortune 500 companies as part of the college's inaugural corporate visit program.

The trip, coordinated by the college's Center for Student Professional Development (CSPD) and International Business Programs Office, included visits to AT&T and Southwest Airlines.

Leaving San Antonio at 6 a.m., undergraduate and graduate business students first visited AT&T's corporate headquarters and attended a panel discussion on AT&T's international business programs. Panelist **Adrian Quintanilla**, '96, associate vice president of staffing and human resources, shared with fellow Roadrunners his experiences at UTSA and discussed his 21-year career at AT&T.

"It is extremely informative to learn about a company before you make an internship or job decision," said **Michelle Paz**, '18.

Then, the students toured the company's Executive Briefing Center, Workplace 2020 office space and social media center. The visit concluded with a presentation on internship and job op-

portunities at AT&T hosted by **Jonathan Geter**, AT&T campus recruiter.

Next the students toured Southwest Airlines corporate headquarters at Love Field and learned about their business development and cyber security operations

"Culture is a big part of Southwest," said **Kayla Cermak**, a recruiter at Southwest Airlines. Students were exposed to their culture as they participated in a team competition to determine who knew Southwest Airlines the best.

"Being able to visit a company makes a big difference," said **Armaan Chakkiwala**, '18. "I learned a lot, and it was a great networking opportunity."

Given the success of this first trip, the college plans to continue these corporate visits and allow additional students to participate.

"A corporate site visit opens students' eyes to the opportunities that Fortune 500 companies offer," said **Aimee Laun**,

director of the CSPD. "The experience gave them the opportunity to picture themselves working in that environment, and it gave them the motivation to persevere toward graduation."

"Our goal is to continue to bring more value to our students. We want students to consider their opportunities and think big."

### AIMEE LAUN

Director of the Center for Student Professional Development



# International Internship Program Launched

Leaving the United States for the first time to intern in Dublin, Ireland, Junior **Montana Meeker** became the first student to participate in the college's international internship program.

Working in the accounting and finance department of MHL Hotel Collection, her eight-week internship included a two-week introduction to Ireland while traveling with the college's immersion program in the country.

"Participating in the immersion gave me the background I needed to understand the cultural divide," said Meeker, an Honors College student from San Antonio. "Learning about the housing crisis and religious conflicts gave me the context to begin to understand their culture."

Once she began her internship her first shock was learning that the Irish accent and slang that they use was more challenging than she imagined.

"It was an amazing experience," said Meeker. "I learned how to communicate with people from different cultures and realized the importance of asking questions."

Working 40 hours a week, her duties included interacting with suppliers, cash clearing, producing the daily business revenue report, analyzing profit and loss and handling billing for their high-end apartment clients.

While this wasn't her first professional experience (she works for the City of San Antonio and will serve as a management analyst intern this fall), she had to learn how to adapt to the Irish business climate.

"Their business culture is more social," she said. "Lunches and out-of-office activities with colleagues were more common. But there was an expectation of professionalism even outside of the workplace."

Making the most of her experience, Meeker made friends through an international student group and traveled to over eight countries including England, France, Germany, the Netherlands, Northern Ireland and Wales.

"The point of an internship program is independent learning," she said. "It is an opportunity for personal growth that you didn't know you needed."

Fueling her desire to travel again and broaden her horizons, Meeker was thankful for the experience.

"The College of Business International Programs staff went the extra mile to make sure I was okay," she said. "It is an incredible feeling to be a part of something from the very beginning. I hope to encourage other students to make the leap and participate in an international internship as well."





# 2017-2018 STUDENT IMMERSION PROGRAMS

Australia China India

Ireland Italy Japan Mexico New Zealand Spain



# MBA Student Named to *Forbes* 30 Under 30 List

**Fatema Basrai**, a UTSA MBA student, was named to Forbes 30 under 30 in Education list.

Basrai is the executive director of Leadership SAISD, a leadership development program for public education advocates. Surprised by the nomination, Basrai was grateful for the honor. "It was really exciting to have been nominated and chosen," she said. "I'm so humbled."

A native of India, Basrai was raised in the United States and learned early on about the inequalities in the public school system.

So, it is only fitting that she is working now to teach others how to become education advocates. Basrai earned her under graduate degree in advertising from the University of Texas at Austin and began her career working for Teach for America.

"I wanted to have a greater impact in education by taking on leadership roles," she said. "I thought an MBA would be the best way to achieve this goal."

She joined UTSA's MBA program with the desire to develop the financial, accounting and negotiation skills that are vital for executives

"I really like my professors and enjoy networking with other students from different industries," she said. "I love the diversity that UTSA has to offer."

# College Presents Student Awards

As part of the 2018 University Life Awards, two business students were named Most Outstanding Students in the College of Business.

**Aashiq Jivani**, '18, won the Most Outstanding Undergraduate Student award.

A graduate of Lee High School, Jivani

"My goal was to study hard and take care of business," said Jivani, who was a member of the Honors College.

began Harvard Law School this fall.

In addition to his studies, he was also active in student organizations. Jivani founded the Society of First Generation Scholars, an organization that connects first-generation students and assists with resources and networking.



College of Business administrators Kevin Grant, Aimee Laun and Joey Ramos present Aashiq Jivani with his award.

"It is really a nice honor to receive this award," said Jivani. "It is rewarding to know that university leadership felt that I was deserving."

**Eric Bachura**, a Ph.D. student in information systems, was named the Most Outstanding Graduate Student in the College of Business.

Bachura's research interests include insider threat, data analytics, cyber security, deception and cognition, information transparency and math theory.

"The honor reinforces to me that what I am doing is right," said Bachura. "I've

been exposed to a variety of multidisciplinary research areas."

Since joining the Ph.D. program, he received the Best Paper Award at the 2017 Americas Conference on Information Systems and has already been published in academic journals.

Prior to his career in academia, Bachura served in the United States Marines while working with the intelligence community at the National Security Agency and as a contractor with the Department of Defense.



# Internships Are Essential to Professional Success

No longer relegated to just summers, UTSA business students are gaining valuable experiential opportunities by participating in internships all year long.

"Internships are the gateway to successful careers," said **Nancy Scott Jones**, associate director of employer relations in the college's Center for Student Professional Development. "It's never too early to get an internship."

National surveys report that a paid internship doubles the probability of students graduating with a job and increases the level of starting pay by 34 percent.

"Networking and building relationships with executives who have been in my shoes has helped me develop insight into my future career," said **Angela Sanchez**, a MACY student who completed a financial services assurance internship with PwC in Houston.

**Mariah Taylor**, '18, interned with C.H. Guenther & Son, Inc. as a product specifications intern.

"Going into an internship it is okay not to know everything," said Taylor, a management science major. "Don't be afraid to ask questions and use other resources to be successful in your tasks."

**Catelyn Vasquez**, MS '18, a graduate student in the master of science in business program, worked as an intern in H-E-B's Global Sourcing Department.

"They treated us like H-E-B partners," said Vasquez, who was offered a full-time position with H-E-B upon graduation. "We were never introduced as interns, and they welcomed me to their team. This internship opened up a whole new skillset for me."

For companies who are looking for internship candidates in the College of Business, contact the Center for Student Professional Development at (210) 458-4039 or email nancy.scottjones@utsa.edu.





542
STUDENTS
COMPLETED
THE 15-HOUR
CAREER ACTION
PROGRAM

96
COMPANIES
MENTORED
AND COACHED
STUDENTS

3,595
RESUMES
REVIEWED
BY VMOCK
PROGRAM

COMPANIES
PARTICIPATED
IN ACCOUNTING
RECRUITING AND
NETWORKING EXPO

# FINANCE MAJORS ADVANCE TO NATIONAL CFA COMPETITION



Finance majors Joshua Mazariegos, Patrick Seaworth and Bence Varga, advanced to the national CFA Research Challenge in Boston after besting 27 schools in the Texas regional. Student teams research and value a publicly-traded company, prepare a report and present their findings to a panel of industry professionals. The team competed against 55 teams from universities in the United States, Canada and Latin America.



### INVESTMENT SOCIETY CELEBRATES 10<sup>™</sup> ANNIVERSARY

The Investment Society celebrated their 10<sup>th</sup> anniversary last fall with a reception for current and past members. The Investment Society is a student organization that educates members about the financial industry, financial analysis and the economy. Organized like a real investment firm, the Investment Society participates in the management of a stock and stock option portfolio for a nonprofit organization managed by faculty member **Ron Sweet**, MBA '91

### **ACCOUNTING STUDENTS VOLUNTEER FOR FUNLYMPICS**



Over 40 UTSA accounting students volunteered at the annual Funlympics event hosted by the San Antonio CPA Society at Boysville. The event benefits at-risk children throughout San Antonio.



# BUSINESS STUDENTS PARTICIPATE IN LEADERSHIP CONFERENCES

Twenty business students participated in leadership conferences sponsored by the college this year. Students attended LeaderShape Institutes in Illinois and Massachusetts. These events challenged them to expand their leadership capabilities to benefit themselves as well as the respective communities and organizations that they will serve in the future.

# FRESHMEN PARTICIPATE IN ENTREPRENEURIAL EXPERIENCE

Freshmen business students learned about business by creating one for UTSA's annual Fiesta UTSA and Best Fest events. As part of their Academic Inquiry & Scholarship course, the teams sold food, merchandise and even pet identification tags as part of the experiential learning experience.





### MANAGEMENT CLASSES RAISE MONEY FOR NONPROFIT

Undergraduate, graduate and executive students in Associate Professor **Matthew McCarter's** management classes have raised more than \$16,000 this year as part of his Paperclip Project exercise. The teams begin with a paperclip and make a series of trades—ending with something of value. The proceeds benefited the Family Violence and Prevention Services Center of San Antonio.

# FEATURE

# Digital Revolution

by Wendy Frost

It has become too commonplace to learn about major data breaches at financial institutions, retail stores or restaurant chains.

Traditional cyber security methods are not enough to stop these attacks. But, with the advent of new analytical tools including deep learning and artificial intelligence, cyber professionals are going on the offensive to prevent these occurrences.

As we enter this new era of digital revolution, big data and cyber security professionals are collaborating to make revolutionary advances in these fields.

Recognizing this trend, the UTSA College of Business has positioned itself as a leader in the fields of cyber security and data analytics.

"Interdisciplinary work doesn't just help research efforts in cyber security and analytics, it's a flat-out necessity."

### **NICOLE BEEBE**

DIRECTOR OF THE COLLEGE'S CYBER CENTER FOR SECURITY AND ANALYTICS



UTSA's cyber security program is ranked No. 1 in the nation by the Ponemon Institute, and UTSA's cyber security graduate programs were ranked No. 2 by Universities. com.

Bolstered by UTSA President **Taylor Eighmy's** initiative to make UTSA a preminent center for cyber security and data science, the university has invested significant resources to hire faculty members in cyber security, artificial intelligence and analytics and data science.

As a result of this initiative, 10 new tenure-track faculty members specializing in analytics and cyber security were hired in the College of Business in the past three years.

The university's unique approach includes researchers from a variety of disciplines including business, science, engineering and liberal and fine arts. These researchers work in multiple centers and institutes focused on solving global security challenges.

"UTSA thinks outside the box," said **Nicole Beebe**, director of the college's Cyber Center for Security and Analytics. "Interdisciplinary work doesn't just help research efforts in cyber security and analytics, it's a flat-out necessity."

Combining the talents of UTSA's data science faculty, the university is forming a National Security Collaboration Center and a School of Data Science to advance research, education and workforce development in these areas. UTSA researchers will collaborate with industry and government partners to solve cyber/analytics challenges.

Cyber attacks are more frequent, more sophisticated and more pervasive than ever before. According to a Verizon Data Breach report, more than 50 percent of data breaches remain undiscovered for months. And, cyber crime costs \$118 billion annually from theft of information assets, disruption of service and more.

The traditional cyber security approaches were mainly defensive and involved thwarting phishing and malware penetrations as well as identifying patterns of unusual network activity.

But with the increased sophistication of the hackers and the volume of attacks, these traditional approaches are not enough. Cyber security professionals are tasked with finding a needle in the haystack. In order to be successful and stay ahead of the hackers, cyber professionals are turning to machine learning and artificial intelligence to assist through the use of predictive analytics.

Machine learning utilizes statistical models to allow computers to learn information that wasn't explicitly programmed through data analysis.

"The speed at which we need to make decisions and the ability to see patterns quickly are two reasons why machine learning is critical," said Beebe.

She and colleague **Paul Rad**, associate professor in the College of Business and assistant director of the UTSA Open Cloud Institute, are studying the use of cognitive learning to teach computers to learn without having to explicitly program them.

"Our goal here is to teach the machine to become smarter, so that it can help us. That's what they're here to do," Rad said. "So how do we become better? We learn from experience."

A recent survey by the Ponemon Institute found that 65 percent of IT and security practitioners said the use of big data analytics is essential to ensuring a strong cyber security posture.

"There are incredible synergies between cyber and data," said **Max Kilger**, director of the college's Data Analytics program. "The digital domain is creating large amounts of data, but 99.9 percent of it is innocuous. The hard part is finding the .1 percent that is malicious."

Kilger compares this process to a human's vision. Ordinary eyesight is unable to see the attack patterns. But, with the use of data analytical tools, computers can find patterns that we would never have seen before—much like vision coming into focus with the use of glasses.

"Given the complementary nature of cyber security and data analytics, we've built upon UTSA's No. 1 ranking in cyber security to recruit elite faculty members in these areas," said **Wm. Gerard Sanders**, dean and Bodenstedt Chair in the College of Business. "We're positioning the college to be an internationally prominent player in the business of cyber security and big data."

### **CYBER SECURITY**

Recognizing this trend, the college's Department of Information Systems and Cyber Security has shifted to focus more on cyber security. And the student interest has increased as well with the college's cyber programs growing by over 350 percent

in the last three years. In addition to the new tenure-track cluster hires, the department had to hire seven full-time faculty to cover the increased student demand this semester.

"Information systems used to be a relatively small discipline, but with the rise of technology came the expansion of the field," said **Charles Liu**, associate professor of information systems. "The expertise brought by our new faculty helps us diversify our research and teaching portfolio and better accommodates the constantly shifting demand from industry."

Offering classes in cyber security since 2001, the college's academic lineup includes a B.B.A. in cyber security, an online B.B.A. in cyber security, a B.B.A. in information systems, a master's degree in information technology with a concentration in cyber security, a Ph.D. in information technology and executive education certificates.

New tracks in cyber analytics at the undergraduate level and analytics and artificial intelligence at the doctorate level have recently been launched to address these changes to the field. In addition, based on industry demand, the first part-time doctoral students in information technology begin next year.

The convergence of big data and cyber security has also been reflected in recent updates to the department's curriculum. Traditional courses in intrusion detection and digital forensics are now paired with new coursework in applied big data with machine learning, cyber operations and secure mobile app development.

"There is not another program in the country that can hold a candle to the breadth and depth of our cyber program," said **David Dampier**, chair of the Department of Information Systems and Cyber Security.

Cyber security is an extremely diverse field with highly-technical specialties such as cryptography and digital forensics as well as disciplines in cyber behavior and policy. The college's cyber security majors take 33 hours of coursework in cyber security, and they can choose from over 25 courses.

Another strength of the college's cyber security program is its applied nature. "We are equipping students with the skills that they need to be relevant and successful in the real world," said **Raymond Choo**, Cloud

"There is not another program in the country that can hold a candle to the breadth and depth of our cyber program."

### **DAVID DAMPIER**

CHAIR OF THE DEPARTMENT OF INFORMATION SYSTEMS AND CYBER SECURITY

Technology Endowed Associate Professor in the College of Business. "Our faculty's research has real world applications, and that is integrated into the classroom."

One such research project involves addressing the vulnerability and security of contemporary technologies such as Internet of Things (IoT) devices. The IoT is a network of physical devices, vehicles, home appliances and other items embedded with software or other technology that allows them to connect with each other and exchange data. It's estimated that the IoT will include 20 billion objects by 2020.

Business faculty members Beebe, Choo and Rad in collaboration with engineering faculty member **Qian Chen** received a grant from the Texas National Security Network Excellence Fund to support the creation of an Internet of Things Security & Forensics Laboratory.

Faculty and students will work to identify vulnerabilities and security countermeasures of commercial, military and home IoT devices; develop forensic data as well as new tools and procedures for acquiring evidence of cyber attacks; and develop and deliver operational training to UTSA's security partners.

### **DATA ANALYTICS**

Big data refers to data sets that are too large and complex for traditional data processing and management. With the volume of data doubling every three years, new tools must be developed to handle this information overload.



This data is analyzed by companies across a variety of industries to improve business processes and outcomes through evidence-based decision making. It is also used to spark innovations in product development and design.

Marketing faculty member **Ashwin Malshe** has been working with Rad on research analyzing brand imagery. By inputting brand images into the computer, they can develop a model to determine which images are appropriate for that brand.

"After I started teaching in this program, I became more interested in machine learning," said Malshe, assistant professor of marketing. "Marketing is visual. If we can come up with a method to determine brand fit, it would be beneficial to companies."

According to a recent study by the McKinsey Global Institute, it will be vital for organizations to build the capabilities of executives and mid-level managers to understand these data-driven insights. But, the challenge is the industry is predicting a shortfall of 250,000 data science professionals in the coming years.

The UTSA College of Business is a leader in data analytics training. With more than 120 majors, the college launched its Master of Science in Data Analytics (MSDA) program in 2016. Offered in both daytime and evening formats, the MSDA program produces highly-skilled and educated data analysts who can convert the growing amount of data confronting all organizations into usable information for decision makers across a variety of disciplines.

"Students are only limited by their tools and their imagination," said Kilger. "Data is not useful if you can't tell a story about it. We're training our students to be able to communicate their results to a non-technical audience."

The multidisciplinary program features faculty from the Department of Information Systems and Cyber Security, the Department of Management Science and Statistics and the Department of Marketing.

"Data analytics is a broad field," said Mark Leung, chair of the Department of Management Science and Statistics. "We've assembled a diverse faculty who are applying analytics to a variety of fields such as finance, health care and supply chain management."

"Our coursework has been designed exclusively for this program," said Malshe. "We're teaching students how to apply the tools to analyze data in any field and become successful data analysts."

Students take classes in areas such as data analytics applications, data driven decision making, data analytics tools and techniques, data visualization and data algorithms. They also gain experience in a number of industry standard platforms and data architecture such as R, SAS, Python and Hadoop.

"The program is rigorous and fast-paced just like the real world data analytics environment," said Kilger.

Drawing upon experiential learning, students apply their education by performing real-world data analytics.

Classmates and colleagues **James Perry** and **Robert Steele** completed a project as part of their data foundations class that resulted not only in a top grade, but also benefited their employer.

"We saw a unique opportunity to leverage the skills we learned in web scraping to help improve patient care at our company," said Perry, a risk management analyst. "This was a groundbreaking new process for our company because it allowed us to gather patient data that we did not have in our own data streams and place into the hands of our providers who need it to provide better care for our patients."

Using Python programming learned in class, they developed an automated process to retrieve data for 6,000 new patients. The benefits to their employer were substantial and represented a potential \$3.4 million dollars in revenue.

In addition to the master's program, the College of Business has found additional ways to incorporate analytics into the business curriculum. Undergraduates can major in Statistics and Data Science or earn a certificate in business analytics. Or, graduate students can pursue a theoretical approach in the Master's in Statistics and Data Science program. Business leaders interested in learning the nuances of data analytics can enroll in executive education programming through the college's Center for Professional Excellence.

Emphasizing the applied nature of this program, students participate in two practicum experiences before graduation where they must work with companies to solve their data challenges. Industry partners have included Booz Allen Hamilton, the City of San Antonio, Harland Clarke, H-E-B, USAA and Valero.

Always looking for new collaborations, Kilger invites organizations to contact him to discuss how business students can help solve their organization's analytical problems.

While new challenges are pervasive in this digital revolution, the UTSA College of Business is prepared to answer that call by training much-needed professionals in cyber security and analytics and advancing fundamental research with our world-class faculty.

# **ALUMNI NOTES**



# Alumnus A.J. Rodriguez Is a Leader in the Business Community

A leader in the San Antonio business community, **Arthur James "A.J." Rodriguez,** '98, MBA '00 has strong ties to San Antonio and UTSA. His father and grandfather are both UTSA alumni.

Rodriguez developed his interest in business as an undergraduate student at UTSA. During his junior year, he recalls being encouraged by his advisor to look at internship opportunities with the City of San Antonio.

"UTSA, specifically, my international business advisor Dr. **Rudy Sandoval**, helped me land my first internship with the San Antonio Chamber of Commerce," said Rodriguez. "I was able to network, make new contacts and learn about other career opportunities around the city."

Rodriguez says the connections he forged during his internship opened new doors for him and led him to exciting employment opportunities.

His internship with the chamber turned into a full-time position and developed into a unique career path. Rodriguez served as the president and CEO of the San Antonio Hispanic Chamber of Com-

merce for four years and as the deputy city manager for the City of San Antonio for nearly four more.

"UTSA provides the foundation that helps establish your career," said Rodriguez. "I was able to apply many of the business skills I learned in the UTSA B.B.A. and MBA programs out in the workplace."

In his current role, as vice president of external affairs for Zachry Group in San Antonio, Rodriguez uses his analytical and critical thinking skills to develop strategy that drives the company's community outreach.

Rodriguez is responsible for building relationships throughout the city, state and country to ensure officials and communities are aware of the company's efforts as a responsible corporate citizen.

Earlier this year, he was named the first Hispanic to serve as board chair of the Texas Association of Business, the largest business advocacy group in Texas. It is considered the state's chamber of commerce.

In addition to being passionate about business, Rodriguez has a creative side. His paintings have been showcased around San Antonio at various exhibitions.

More than anything, Rodriguez is a family man who enjoys spending time with his wife and three children. His oldest daughter, Alexandra, is following in her father's footsteps at UTSA. He's looking forward to the day she crosses the commencement stage with her communications degree in 2019.

"Enjoy the moments you have at UTSA, because it's a time in your life to explore opportunities that can lead to a fulfilling future," said Rodriguez. "Strive to be a lifelong learner in order to be successful and achieve your goals."



1,110 undergraduate alumni 379
MASTER'S

16 DOCTORAL ALUMNI





# Alumni Create App to Eliminate Food Waste

A UTSA business course led to a friendship and business partnership for two alumni. **Matthew Galvan**, '16 met **Miles Lerch**, '16 during their junior year in an entrepreneurship course that required students to create their own business.

The two initially wanted to create a food delivery service for college campuses. While reading up on meal prep programs and the food industry, though, they realized food waste is a serious problem. That sparked a new business idea.

Their research revealed that food waste is a challenge many schools in Texas face. Galvan learned that some school cafeterias throw away up to \$200,000 worth of food annually.

The UTSA class project sparked an ingenuity inside Galvan and Lerch and, after talking it over, several ideas molded together to become their current start-up, CafeEDU.

The business offers students the opportunity to pre-select their lunch items through a phone app. The order is sent

to the school so cafeteria staff know just how much food is needed to feed the students at lunchtime. The data also allows the school to see how food is being used and what is being ordered.

Galvan said so far, the business has received great feedback. The duo has presented their app to school administrators and is in talks to roll out their business in school districts across Texas.

Galvan said UTSA finance courses instructed by **Ron Sweet**, MBA '91 have come in handy as he and Lerch navigate running a business for the first time.

"UTSA prepared me and taught me how to think outside of the box, and think of different ways of doing things," said Galvan. "I learned how to think on my feet and adapt if things don't go as planned." Galvan reiterated that the world needs more entrepreneurs, and he encourages other students to chase their business dreams.

"You're going to have to keep trying and tweaking your business plan to make it work," said Galvan. "If you have an idea, ask yourself: 'Does it help someone? Does it solve a problem?' If you answer 'yes' to both, you have a business."

Galvan said he and Lerch created their business to give back. Their hope is that the money schools save from reducing food waste can be used in better ways by going toward important educational programs to help students succeed.

# Vogel Named Alumnus of the Year

**Randy Vogel**, '79 was named the Alumnus of the Year by the UTSA Alumni Association during their annual gala this summer.

The award honors individuals who have made significant contributions to the university and to the UTSA Alumni Association.

Vogel is an audit partner with BKD San Antonio. His area of specialty is energy and natural resources and not-for-profit government. Vogel is a member of the board of the Texas Society of CPAs. He serves on the UTSA College of Business Accounting Advisory Board, and he was president of the UTSA Alumni Association from 2012-2013.



# RESEARCH REPORT



# Marketing Researchers Explore Design Crowdsourcing

Leveraging insights from the community into functional product design is a burgeoning new field in new product development called design crowdsourcing.

This increasingly popular crowdsourcing practice was recently the subject of an article in the *Journal of Marketing* by UTSA College of Business faculty members **Suman Basuroy**, Graham Weston Endowed Professor of Marketing, and **Deepa Chandrasekaran**, assistant professor of marketing; and **B.J. Allen**, Ph.D. '17, assistant professor of marketing at the University of Arkansas.

The researchers explored how design crowdsourcing affects the new product development process; why companies choose to design crowdsource; and if the process has a positive impact on product performance and functional design.

Utilizing data from community-driven new product development websites, the researchers found that the process is helpful in several different types of scenarios.

"There is a growing popular movement of firms using customers or the community during the design phase, but we realized that there was very little academic research into this management trend," said Chandrasekaran. "Design crowdsourcing

brings in novel and fresh solutions to design problems. It allows companies to hear from real people and helps achieve diversity of perspectives."

Their findings generated three implications for business managers. First, managers can maintain greater control of the product while also creating slack for their research and development team. Design crowdsourcing also allows a greater number of ideas to move through the development pipeline by using the community's assistance in making (initially) less promising ideas marketable. Finally, by utilizing this process the perceived reliability and usability of the product increases.

"Not much has been written about design crowdsourcing," said Chandrasekaran. "But through our research and interviews with industry experts we found that it is changing the way new products are being developed, particularly in small companies. There are still a lot of questions that are unanswered. We plan on continuing our research in this exciting new area of marketing."

### COLLEGE OF BUSINESS RESEARCH RANKING



UT DALLAS BUSINESS SCHOOL RESEARCH RANKINGS 2013-2017

# The Politics of Branding

Does a consumer's political affiliation affect their views about a brand? **Ashwin Malshe,** assistant professor of marketing at the UTSA College of Business, and his colleagues have found that it does.

Malshe co-authored recently "The Unequal Effects of Partisanship on Brands," in the *Harvard Business Review* online.

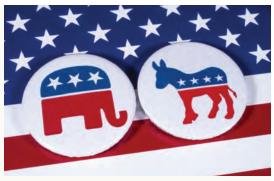
The research focused on customer loyalty to 45 specific retail brands. The authors surveyed customers to map how their political affiliation affects brand perception and how a customer speaks about a brand, known as word-of-mouth marketing.

"In analyzing the survey results, we found a low level of agreement between customers who identify as either Democrat or Republican. Only 36 percent of their brand classifications matched," said Malshe, who teaches social media marketing and data analytics.

"Considering research that supports a customer preference to buy brands that align with their political views, we wanted to measure how a company taking a strong political stance may impact word-of-mouth marketing and their

bottom line."

"An interesting example that didn't make it into the article, but occurred around the time we were publishing, is when Delta decided to drop the National Rifle Association from their discount fare program. Although Delta indicated it was in an effort to be politically neutral, it resulted in backlash from the state legislature, which caught national media attention," shared Malshe.



"It would have been interesting to study how customer perception of Delta, word-of-mouth marketing and their bottom line were impacted during this time. I would expect customer perception to be strongly divided and heavily influenced by political affiliation."

Based on this research, senior leadership should strongly consider customer political affiliation before taking a political stand. Not understanding the potential impact on customer attitude and word-of-mouth marketing is a mistake – but if done strategically, it can create positive business outcomes and enhance an organization's brand power.



# For-Profit Social Ventures Viewed Negatively by Public

Consumers are traditionally supportive of businesses that back charitable causes. But recent research from a UTSA faculty member has found that this can backfire when social ventures retain a profit.

"For-profit social ventures are new to the marketplace," said **Saerom Lee**, assistant professor of marketing in the UTSA College of Business. "These companies match up with nonprofits in terms of their social mission, but they also have a profit goal."

Her paper, "To Profit or Not to Profit? The Role of Greed Perceptions in Consumer Support for Social Ventures," was published in the *Journal of Consumer Research*.

"People are not aware of for-profit social ventures," said Lee. "These businesses are upfront about their social mission, but not always of their for-profit status."

One study recruited prior donors of nonprofit organizations as well as for-profit social ventures. When their profit status was

not revealed, respondents chose to support these organizations again. But, once the organization was disclosed as a for-profit organization, the reaction was negative.

"For organizations with a prominent social mission, profits are interpreted as a signal of greed," said Lee. "Consumers perceive that profits come at the expense of social impact."

Several practical insights can be made from Lee's research. First, she recommends that for-profit social ventures reduce the prominence of their social mission or highlight low profit levels to correct consumer misperceptions. And, she encourages for-profit social ventures to be upfront about their for-profit status, to minimize negative repercussions.

# Predicting Future Cyber Threats



UTSA College of Business faculty member **Max Kilger** showcased his research on emerging cyber threats during the annual SXSW Conference in Austin.

Kilger, associate professor of practice and director of the college's Data Analytics program, spoke in the conference's new Security Series on "Digital Life + Government Policy + National Security."

"Understanding the relationship between people and digital technology is not just a consumer issue or an industry issue, but one that uniquely involves policy-makers and national security issues," said Kilger, who is the co-author of the book *Deception in the Digital Age*.

Kilger's research focuses strategically rather than tactically on developing scenarios for future cyber threats and the motivations of malicious online actors.

"For the first time in history, a person may—through the use of digital technology—be able to effectively change the strategic direction of or directly attack a nation state," said Kilger.

Through his research Kilger has identified six motivations for malicious online actors or groups. They include money, ego, entertainment, cause, entry to social groups and status.

"If you follow the kill chain upstream, at the end is a human person with motivations and objectives," said Kilger.

"Learning how to understand and foresee those motivations and objectives is crucial to predicting future cyber threats."

# UTSA INTERNAL RESEARCH AWARDS

### **VICTOR DE OLIVEIRA**

Professor of Management Science and Statistics Bayesian Analysis of a

Multivariate Density Ratio Model

### **DAVID HAN**

Associate Professor of Management Science and Statistics

Bayesian Design Optimization of a Non-specific Sensor System for Calibration of Analyte Responses and a New Measure of Analytical Selectivity

### **JUAN MAO**

### **Assistant Professor of Accounting**

Roles of Audit Firm Networks and Their Consequences in Audit Services: Evidence from U.S. Small Audit Firms

### **MATTHEW MCCARTER**

**Associate Professor of Management** 

Constellation Interdependence, Trust and Cooperation in Alliance Partnerships: An Experimental Approach

### **KEFENG XU**

Professor of Management Science and Statistics

Consumer Reference Dependency, Loss Aversion and Sources of Blame in Service Competition

### **ZHONGXIA (SHELLY) YE**

**Associate Professor of Accounting** 

The Risk Committee Process for U.S. Publicly Traded Firms

### **JENNIFER YIN**

**Associate Professor of Accounting** 

The Alignment Between Stewardship and Valuation Roles of Revenues



### **ACCOUNTING**

### **Sharad Asthana**

Co-author. "Unintended Consequences of Big 4 Auditor Office-Level Industry Specialization." *International Journal of Accounting, Auditing and Performance Evaluation*. Vol. 14, No. 2-3, (April 2018): 254–289.

### **Dana Forgione**

Co-author. "Publication Outlets for Healthcare Financial Research: A Study of Journal Attributes and Quality Perceptions." *Financial Accountability* & *Management*. Vol. 34, No. 3, (2018): 288–305.

Co-author. "Paying Specialists in Hospitals: Reform Experiences and Lessons from Eight High-Income Countries." *Health Policy*. Vol. 122, No. 5, (2018): 473–484.

Co-author. "Do Donors Respond to Discretionary Accounting Information Consolidation?" *Journal of Public Budgeting, Accounting and Financial Management.* Vol. 30, No. 1, (2018): 35–58.

Co-author. "New Clients, Audit Quality, and Auditor Industry Expertise." *International Journal of Auditing.* Vol. 21, No. 3, (2017): 288–303.

Co-author. "Academic Accounting Salaries in the Southwest: A Revisitation and Exploration." *Journal of Accounting and Finance*. Vol. 17, No. 5, (2017): 79–97.

### Cheryl Linthicum

Co-author. "An Analysis of SEC Comment Letters and IFRS." *Journal of Financial Reporting and Accounting*. Vol. 15, No. 2, (2017): 226–244.

### Harrison Liu

Co-author. "Publication Outlets for Healthcare Financial Research: A Study of Journal Quality Perceptions." Financial Accountability and Management. Vol. 34, No. 3, (2018): 288–305.

Co-author. "Corporate Responses to the Repatriation Incentives and Domestic Production Activities Deduction." *Review of Quantitative Finance and Accounting.* Vol. 50, (2018): 623–651.

### Juan Mao

Co-author. "Does International Accounting Network Membership Affect Audit Fees and Audit Quality? Evidence from China." *The International Journal of Accounting*. Vol. 52, No. 3, (2017): 262–278.

Co-author. "Auditor Reverse Merger Expertise: Evidence from Chinese Reverse Merger Companies." *Auditing: A Journal of Practice and Theory.* Vol. 36, No. 4, (2017): 115–133.

### Emeka Nwaeze

Co-author. "Why and How Firms Use Operating Cash Flow in Compensation." *Accounting and Business Research.* Vol. 48, No. 4, (2018): 400-426.

### K. K. Raman

Co-author. "Halo Effect or Fallen Angel Effect? Firm Value Consequences of Greenhouse Gas Emissions and Reputation for Corporate Social Responsibility." *Journal of Accounting and Public Policy.* Vol. 37, No. 3, (May-June 2018): 226–240.

Co-author. "Unintended Consequences of Big 4 Auditor Office-Level Industry Specialization." *International Journal of Accounting, Auditing and Performance Evaluation*. Vol. 14, No. 2-3, (Spring 2018): 254–289.

### Juan Manuel Sanchez

Co-author. "CEO Inside Debt Incentives and Corporate Tax Sheltering." *Journal of Accounting Research*. Vol. 55, No. 4, (2017): 837–876.

### Pamela Smith

Co-author. "Publication Outlets for Healthcare Financial Research: A Study of Journal Quality Perceptions." Financial Accountability and Management. Vol. 34, No. 3, (2018): 288–305.

### **Jennifer Yin**

Co-author. "Halo Effect or Fallen Angel Effect? Firm Value Consequences of Greenhouse Gas Emissions and Reputation for Corporate Social Responsibility." *Journal of Accounting and Public Policy*. Vol. 37, No. 3, (May-June 2018): 226–240.

Co-author. "Auditor Reverse Merger Expertise: Evidence from Chinese Reverse Merger Companies." *Auditing: A Journal of Practice and Theory.* Vol. 36, No. 4, (2017): 115–133.

### **ECONOMICS**

### Samson Alva

"WARP and Combinatorial Choice." *Journal of Economic Theory*. Vol. 173, No. 1, (January 2018): 320–333.

### Hamid Beladi

Co-author. "Artists, Engineers, and Aspects of Economic Growth in a Creative Region." *Economic Modelling*. Vol. 71, (April 2018): 214–219.

Co-author. "Advertising and Competition for Market Share Between a New Good Producer and a Remanufacturer." *German Economic Review.* Vol. 19, No. 1, (February 2018): 113–118.

Co-author. "Reform, Informal Sector and Extortion." *Economics & Politics*. Vol. 30, No. 1, (2018): 106–123.

"Does Tax Avoidance Behavior Affect Bank Loan Contracts for Chinese Listed Firms?" *International Review* of Financial Analysis. Vol. 58, (2018): 104–116. Co-author. "Technology Diffusion and Trade Liberalization." *The B.E. Journal of Economic Analysis and Policy.* Vol. 17, No. 2, (2017): 121–131.

Co-author. "Cleaning the Ganges in Varanasi to Attract Tourists." *Atlantic Economic Journal*. Vol. 45, (2017): 511–513.

Co-author. "A Model of Smuggling and Trafficking of Illegal Immigrants with a Host Country Policy." *Review of Development Economics*. Vol. 21, No. 3, (2017): 698–712.

Co-author. "Cheating on Your Spouse: A Game-Theoretic Analysis." *Theoretical Economics Letters*. Vol. 7, (2017): 79–85.

"A Game Model of Competition Between a New Good Producer and a Remanufacturer Using Negative Advertising." *Asia-Pacific Journal of Regional Science*. Vol. 1, (2017): 329–336.

### Lynda de la Viña

Co-author. "Crowdfunding," in *Educating Social Entrepreneurs: From Business Plan Formulation to Implementation*. New York, NY: Business Expert Press, (2017): 131–148.

### **Donald Lien**

Co-author. "Union Membership, Union Coverage and Wage Dispersion of Rural Migrants: Evidence from Suzhou Industrial Sector." *China Economic Review.* Vol. 49, (2018): 96–113.

Co-author. "Linking Oil, Wheat, and Corn Markets Through Their Implied Volatility Indices: A Frequency Domain Causality." *Economic Bulletin*. Vol. 37, No. 2, (2017): 1077–1088.

Co-author. "Does the Confucius Institute Network Impact Cultural Distance? A Panel Data Analysis of Cross-Border Flows In and Out of China." *Asian Economic Journal*. Vol. 31, (2017): 299–323.

Co-author. "Production and Hedging with Optimism and Pessimism Under Ambiguity." *International Review of Economics and Finance*. Vol. 50, (2017): 122–135.

### Saeid Mahdavi

Co-author. "Subnational Government Tax Revenue Capacity and Effort Convergence: New Evidence from Sequential Unit Root Tests." *Economic Modelling*. Vol. 73, (June 2018): 174–183.

### John Merrifield

Co-author. *Restoring America's Fiscal Constitution*. Lexington, MA: Lexington Press, (2017): 241 pages.

Co-author. "New Constitutional Debt Brakes for Euroland Re-Visited." *The Journal of Applied Business and Economics.* Vol. 19, No. 8, (2017): 110–132.

### **Dale Truett**

Co-author. "A Requiem for the Australian Motor Vehicle Industry." *Applied Economics*. Vol. 50, No. 40, (2018): 4343–4359.

### Lila Truett

Co-author. "A Requiem for the Australian Motor Vehicle Industry." *Applied Economics*. Vol. 50, No. 40, (2018): 4343–4359.

### **FINANCE**

### Karan Bhanot

Co-author. "The New Market for Treasury Floating Rate Notes." *The Journal of Fixed Income*. Vol. 27, No. 2, (Fall 2017): 52–64.

### Lalatendu Misra

"Do Scandals Trigger Governance Changes? Evidence from Option Backdating." *Journal of Financial Research*. Vol. 41, No. 1, (2018): 91–111.

"An Analysis of Closed-End Funds Discounts Viewed from a Lack of Redemption Perspective." *Review of Quantitative Finance and Accounting*. Vol. 50, No. 2, (2018): 415–440.

# INFORMATION SYSTEMS & CYBER SECURITY

### Kim-Kwang Raymond Choo

Co-author. "Efficient and Privacy-Preserving Outsourced Calculation of Rational Numbers." *IEEE Transactions*  on Dependable and Secure Computing. Vol. 15, No. 1, (2018): 27–39.

Co-author. "Reliable Inversion in GF(28) With Redundant Arithmetic for Secure Error Detection of Cryptographic Architectures." *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems.* Vol. 37, No. 3, (2018): 696–704.

Co-author. "Certificateless Searchable Public Key Encryption Scheme for Industrial Internet of Things." *IEEE Transactions on Industrial Informatics*. Vol. 14, No. 2, (2018): 759–767.

Co-author. "Towards Bayesian-Based Trust Management for Insider Attacks in Healthcare Software-Defined Networks." *IEEE Transactions on Network and Service Management*. Vol. 15, No. 2, (2018): 761–773.

Co-author. "Efficient Identity-Based Encryption Scheme with Equality Test in Smart City." *IEEE Transactions on Sustainable Computing*. Vol. 3, No. 1, (2018): 44–55.

Co-author. "From Latency, Through Outbreak, to Decline: Detecting Different States of Emergency Events Using Web Resources." *IEEE Transactions* on *Big Data*. Vol. 4, No. 2, (2018): 245–257.

Co-author. "Design of Secure and Lightweight Authentication Protocol for Wearable Devices Environment." *IEEE Journal of Biomedical and Health Informatics*. Vol. 22, No. 4, (2018): 1310–1322.

Co-author. "A Robust and Energy Efficient Authentication Protocol for Industrial Internet of Things." *IEEE Internet of Things Journal*. Vol. 5, No. 3, (2018): 1606–1615.

Co-author. "Non-Reciprocity Compensation Combined with Turbo Codes for Secret Key Generation in Vehicular Ad Hoc Social IoT Networks." *IEEE Internet of Things Journal*. Vol. 5, No. 4, (2018): 2496–2505.

Co-author. "Privacy-Preserving Content-Oriented Wireless Communication in Internet-of-Things." *IEEE Internet of Things Journal*. Vol. 5, No. 4, (2018): 3059–3067.

### Max Kilger

"Cybermarketing," in *The SAGE Ency*clopedia of Surveillance, Security, and *Privacy.* Thousand Oaks, California: Sage Publications, (2018): 263–265.

### Myung Ko

Co-author. "The Impact of Perceived Quality of Digital Video Games on Sales: An Empirical Investigation." *Decision Support Systems*. Vol. 106, (2018): 86–96.

### Paul Rad

Co-author. Applied Cloud Deep Semantic Recognition: Advanced Anomaly Detection. CRC Press, (March 2018): 188 pages.

Co-author. "Improved Deep Neural Network Object Tracking System for Applications in Home Robotics," in *Computational Intelligence for Pattern Recognition*. Springer, (2018): 369–395.

Co-author. "A Privacy-Aware Architecture at the Edge for Autonomous Real-Time Identity Re-Identification in Crowds." *IEEE Internet of Things Journal*. Vol. 5, No. 4, (2018): 2936–2946.

Co-author. "Deep Learning Control for Complex and Large Scale Cloud Systems." *Intelligent Automation & Soft Computing*. Vol. 23, No. 3, (2017): 389–391.

Co-author. "Distributed Algorithm with Inherent Intelligence for Multi-Cloud Resource Provisioning," in *Intelligent Decision Support Systems for Sustainable Computing*. Springer, (2017): 77–99.

Co-author. "Cloud of Things in Smart Agriculture: Intelligent Irrigation Monitoring by Thermal Imaging." *IEEE Cloud Computing*. Vol. 4, No. 1, (2017): 10–15.

### H. Raghav Rao

Co-author. "Use of Online Information and Suitability of Target in Shoplifting: A Routine Activity Based Analysis." *Decision Support Systems*. Vol. 110, (January 2018): 1–10.

Co-author. "ICT Mediated Rumor Beliefs and Resulting User Actions During a Community Crisis." *Government Information Quarterly*. Vol. 35, No. 2, (2018): 243–258.

Co-author. "Employee Moral Disengagement in Response to Stressful Information Security Requirements: A Methodological Replication of a Coping-Based Model." A/S

Transactions on Replication Research. Vol. 4, No. 8, (2018): 1–28.

Co-author. "A System for Intergroup Prejudice Detection: The Case of Microblogging Under Terrorist Attacks." Decision Support Systems. Vol. 113, (2018): 11–21.

Co-author. "The Role of Online Freelance Stock Analysts in Correcting Overly Pessimistic Market Sentiment." *Managerial Finance*. Vol. 44, No. 8, (2018): 954–971.

Co-author. "An Examination of an E-authentication Service As an Intervention in E-mail Risk Perception." *Journal of Information Privacy and Security.*Vol. 13, No. 1, (2017): 2–16.

Co-author. "Coping Responses in Phishing Detection: An Investigation of Antecedents and Consequences." *Information Systems Research*. Vol. 28, No. 2, (2017): 378–396.

Co-author. "Cyber-Rumor Sharing Under a Homeland Security Threat in the Context of Government Internet Surveillance: The Case of South-North Korea Conflict." *Government Information Quarterly.* Vol. 34, No. 2, (2017): 307–316.

Co-author. "Computer Assisted Frauds: An Examination of Offender and Offense Characteristics in Relation to Arrests." *Information Systems Frontiers*. Vol. 19, No. 3, (2017): 443–455.

### **MANAGEMENT**

### Jonathan Clark

Co-author. "Goal Relatedness and Learning: Evidence from Hospitals." *Organization Science*. Vol. 29, No. 1, (2018): 100–117.

### Vic Heller

Co-author. "The Facilitation of Higher Order Thinking Using the Conception Focused Curriculum." *International Journal of Business, Humanities, and Technology.* Vol. 7, No. 2, (2018): 27–31.

### Dina Krasikova

Co-author. "Toward Customer-Centric Organizational Science: A Common Language Effect Size Indicator for Multiple Linear Regressions and Regressions with Higher-Order Terms." Journal of Applied Psychology. Vol. 103, No. 6, (2018): 659–675.

### Huy Le

Co-author. "Toward Customer-Centric Organizational Science: A Common Language Effect Size Indicator for Multiple Linear Regressions and Regressions with Higher-Order Terms." *Journal of Applied Psychology*. Vol. 103, No. 6, (2018): 659–675.

Co-author. "Using Beta-Coefficients to Impute Missing Correlations in Meta-Analytic Research: Reasons for Caution." *Journal of Applied Psychology.* Vol. 103, (2018): 644–658.

### Matthew McCarter

Co-author. "Who's Holding Out? An Experimental Study of the Benefits and Burdens of Eminent Domain." *Journal of Urban Economics*. Vol. 105, No. 3, (2018): 176–185.

Co-author. "How Alliance Managers Are Like Blind Men Describing an Elephant: Investigating Resource Pooling and Value Asymmetries," in *Social Integration and Inclusion: Predictors, Practices, and Obstacles.* Hauppauge, NY: Nova Science Publishers, (2018): 89–118.

### Michael McDonald

Co-author. "One Step Forward, One Step Back: How White Male Top Managers Respond to the Appointment of a Female or Racial Minority CEO." *Academy of Management Journal*. Vol. 61, (April 2018): 405–439.

Co-author. "Those Closest Wield the Sharpest Knife? How Ingratiation Leads to Resentment and Social Undermining of the CEO." *Administrative Science Quarterly*. Vol. 62, (September 2017): 484–523.

### **Stewart Miller**

Co-author. "Executive Migration: How Information Cues from Departing Firms and the Labor Market Affect Shareholder Value." *Corporate Governance – An International Review.* Vol. 26, No. 4, (2018): 293–308.

Co-author. "Obtaining Global Certification: Analysis of Ownership Structures and TQM Commitment in Emerging Markets by Adapting the Theory of Planned Behavior." *International Journal of Operations & Production Management.* Vol. 38, No. 4, (2018): 957–978.

### **Bruce Rudy**

Co-author. "Attack or Defend? The Role of Institutional Context on Pat-

ent Litigation Strategies." *Journal of Management*. Vol. 44, No. 3, (2018): 1226–1249.

### **Wm. Gerard Sanders**

Co-author. "Executive Migration: How Information Cues from Departing Firms and the Labor Market Affect Shareholder Value." *Corporate Governance – An International Review.* Vol. 26, No. 4, (2018): 293–308.

### Meghan Thornton-Lugo

Co-author. "Beyond Victims and Perpetrators." *Industrial and Organizational Psychology: Perspectives on Science and Practice*. Vol. 11, (2018): 116–122.

# MANAGEMENT SCIENCE & STATISTICS

### Victor De Oliveira

Co-author. "Spatial Modeling of Rainfall Accumulated Over Short Periods of Time." *Journal of Multivariate Analysis*. Vol. 166, (2018): 129–149.

Co-author. "Bayesian Analysis of a Density Ratio Model." *The Canadian Journal of Statistics*. Vol. 45, (2017): 274–289.

### Mark Leung

Co-author. "A Review of Data Analytic Methods and Their Applications in E-Commerce Research," in *Electronic Commerce: Technologies, Challenges and Future Prospects.* Hauppauge, NY: Nova Science Publishers, (2017): 1–79.

### Anuradha Roy

Co-author. "Free-Coordinate Estimation for Doubly Multivariate Data." *Linear Algebra and Its Applications*. Vol. 547, (2018): 217–239.

Co-author. "Testing a Block Exchangeable Covariance Matrix." *Statistics: A Journal of Theoretical and Applied Statistics.* Vol. 52, No. 2, (2018): 393–408.

Co-author. "Testing of Multivariate Repeated Measures Data with Block Exchangeable Covariance Structure." *TEST.* Vol. 27, No. 2, (2018): 360–378.

Co-author. "Commonality in Microarchitecture of Human Trabecular Bones: A Preliminary Study." *Bone.* Vol. 111, (2018): 59–70.

Co-author. "Best Unbiased Estimates for Parameters of Three-Level Multi-

variate Data with Doubly Exchangeable Covariance Structure." *Linear Algebra and Its Applications*. Vol. 535, (2017): 87–104.

Co-author. "Supervised Classifiers of High-Dimensional Higher-Order Data with Locally Doubly Exchangeable Covariance Structure." *Communications in Statistics – Theory and Methods*. Vol. 46, No. 23, (2017): 11612–11634.

### **Daniel Sass**

Co-author. "Selecting the 'Best' Factor Structure and Moving Measurement Validation Forward: An Illustration." *Journal of Personality Assessment.* Vol. 100, No. 4, (2018): 345–362.

Co-author. "Teacher's Classroom Management Behavior and Students' Classroom Misbehavior: A Study with 5<sup>th</sup> Through 9<sup>th</sup> Grade Students." *Electronic Journal of Research in Educational Psychology*. Vol. 16, No. 3, (2018): 467–490.

### Minghe Sun

Co-author. "A Review of Data Analytic Methods and Their Applications in E-Commerce Research," in *Electronic Commerce: Technologies, Challenges and Future Prospects.* Hauppauge, NY: Nova Science Publishers, (2017): 1–79.

"A Differential Oligopoly Game for Optimal Production Planning and Water Saving." *European Journal of Operational Research*. Vol. 269, No. 1, (2018): 206–217.

### Deepa Wani

Co-author. "Impact of Competition on Process of Care and Resource Investments." *Journal of Operations Management*. Vol. 57, No. 1, (2018): 23–35.

Co-author. "Does the Meaningful Use of Electronic Health Records Improve Patient Outcomes?" *Journal of Operations Management*. Vol. 60, No. 3, (2018): 1–18.

### Kefeng Xu

Co-author. "Obtaining Global Certification: Analysis of Ownership Structures and TQM Commitment in Emerging Markets by Adapting the Theory of Planned Behavior." *International Journal of Operations & Production Management.* Vol. 38, No. 4, (2018): 957–978.

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Co-author. "Design Crowdsourcing: The Impact on New Product Performance of Sourcing Design Solutions from the 'Crowd." *Journal of Marketing*. Vol. 82, No. 2, (2018): 106–123.

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### Saerom Lee

Co-author. "Did They Earn It? Observing Unearned Luxury Consumption Decreases Brand Attitude When Observers Value Fairness." *Journal of Consumer Psychology.* Vol. 28, (July 2018): 412–436.

Co-author. "To Profit or Not to Profit? The Role of Greed Perceptions in Consumer Support for Social Ventures." *Journal of Consumer Research.* Vol. 44, (December 2017): 853–876.

### Ashwin Malshe

Co-author. "Improving Consumer Mindset Metrics and Shareholder Value Through Social Media: The Different Roles of Owned and Earned Media." *Journal of Marketing*. Vol. 82, No. 1, (January 2018): 37–56.



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