



University at Buffalo

Department of Industrial
and Systems Engineering

School of Engineering and Applied Sciences



Industrial and Systems Engineering

// 2022 DEPARTMENT NEWS

// A MESSAGE FROM THE CHAIR



Greetings alumni and friends,
This year has been full of important milestones and changes for UB ISE. Our new research grants are at an all time high. Our research programs have expanded into new, exciting territories, including eco-friendly materials and outer space!

Many of our faculty received significant national or university awards for excellence in scholarship and education. Our graduates had employment opportunities not seen in many years due to the recent acceleration of engineering retirements and the great need for industrial engineers to strengthen supply chains and enhance employer efficiencies.

We concluded our 75th Anniversary this past May with a celebration to honor the illustrious career of Mark Karwan, SUNY Distinguished Professor of Teaching and former dean of the UB School of Engineering and Applied Sciences. We acknowledge the recent faculty retirements of professors Mark Karwan and Li Lin, wishing them both very well in the years ahead. We sadly acknowledge the passing of Wayne Bialas, Associate Professor Emeritus, who retired from UB in 2008.

This fall has been quite eventful with the arrival of four new faculty members, the re-vitalization of our on-campus UB ISE Distinguished Speaker Series, ISE Student Appreciation Week, and several other special events to cap off what has been a very successful 2022.

In this newsletter, we share just some of our departmental highlights. I encourage you to learn more by visiting engineering.buffalo.edu/ise, or joining us on LinkedIn (**search ISE at UB**), Facebook (**facebook.com/UBISEr**), Twitter (**@UB_ISE**) or Instagram (**ub_ise**). I also encourage you to contact me directly at any time to share ideas about how we can better connect with you! //

Yours respectfully,

A handwritten signature in black ink that reads "Victor J. Paquet". The signature is written in a cursive, flowing style.

Victor Paquet

Professor and Chair, Department of Industrial and Systems Engineering

// QUICK FACTS



DEGREE PROGRAMS

- BS Industrial Engineering
- BS/MBA 5-Year Degree
- MS Industrial Engineering, Concentrations in Operations Research, Production Systems and Human Factors
- ME Engineering Management
- PhD Industrial Engineering

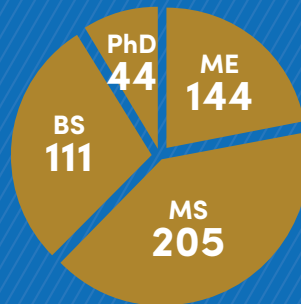
2022 ENROLLMENT

504

- BS 111
- MS 205
- ME 144
- PhD 44

15

PHD DEGREE CONFERRALS



2023 US NEWS AND WORLD REPORT RANKINGS

24th

OVERALL

18th

AMONG PUBLIC UNIVERSITIES

23

2022 FULL-TIME FACULTY

- 18 tenured or tenure track, 5 teaching

RESEARCH STRENGTH AREAS

- Security and Defense
- Health and Health Systems
- Transportation and Logistics
- Advanced and Sustainable Manufacturing

2021-2022 FISCAL YEAR

\$2.3m

Research Expenditures

\$12.2m

New Grants Overall

\$6.1m

ISE Credit

\$5M GRANT TO IMPROVE TRACKING AND MONITORING OF SPACE DEBRIS



“WE ARE DROWNING IN DATA YET STARVED FOR USEFUL INFORMATION. THIS PROJECT WILL ALLOW US TO FIND THAT ACTIONABLE INFORMATION FOR SPACE DECISION-MAKING THAT IS OTHERWISE BURIED AMONG UNUSABLE NOISE.”

— Sudit

Outer space is increasingly filled with satellites, no-longer working satellites, launch rockets, debris from launching satellites and some materials of space like meteorites. Many are too small for the network of radar stations, telescopes and even other satellites to spot. That can lead to debris or micro-meteorites damaging satellites or even threatening the International Space Station.

A research team led by ISE’s **Moises Sudit**, above right, and **John Crassidis** (UB Department of Mechanical and Aerospace Engineering) has received a \$5 million grant to improve our ability to track and monitor this growing collection of space debris.

The project is part of a newly established Space University Research Initiative program that was created to spur university research into new technologies for the Air Force and U.S. Space Force.

The focus of the grant will be to develop cutting-edge techniques pertaining to sensors and measurement strategies, data fusion and autonomy, as well as improving algorithms to better predict the movements of objects in space.

The UB-led team also includes researchers from MIT, Purdue, Penn State and Georgia Tech. //

BATTA AND KELLY AWARDED \$1.5M NSF GRANT

AWARD TO STUDY IMPACTS OF SOCIAL JUSTICE IN ENGINEERING EDUCATION ON UNDERREPRESENTED STUDENT ACHIEVEMENT

A UB SEAS team lead by **Rajan Batta**, right top, ISE SUNY Distinguished Professor and Associate Dean for Faculty Affairs and Diversity, was awarded a five-year \$1.5 million NSF grant to support the retention and graduation of high-achieving, low-income students.

Traditionally, students who are underrepresented in STEM experience increased retention if they have positive psychosocial factors such as sense-of-belonging, science identity and self-efficacy. Less is known about the role that social justice awareness and socio-technical research experiences play in the effort to retain these students. This project, “A Socio-Technical Approach to Solve Grand Societal Challenges: Engineering Design and Innovation Scholars Program,” will investigate the introduction of social justice theory to engineering practice, and the extent to which students benefit in terms of their learning experiences and achievements.

The project funds scholarships and provides support services to 25 full-time students who are pursuing undergraduate and master’s degrees in UB’s School of Engineering and Applied Sciences. It will introduce participants to social justice concepts such as equity and inclusion in healthcare, access to clean air and water, the effects of climate change and access to technology.



Because the program specifically targets underrepresented students for participation, it has the potential to broaden participation in STEM fields and learn how cohort building, mentoring, research and academic services support retention and graduation of this student population. It is intended to demonstrate the ways students can use their engineering and computer science knowledge and skills to make the world a fairer and more just place for everyone.

The project also aims to increase the active engagement of all participants in hands-on, community-based research projects, to supplement

traditional lecture-based teaching. **Harrison Kelly**, right bottom, ISE Associate Professor of Practice, will leverage ISE’s internship program and vast contacts in industry to provide experiential learning opportunities to the scholars.

Other team members include **Kristen Moore**, Associate Professor of Engineering Education, and **Letitia Thomas**, Assistant Dean for Diversity in the School of Engineering and Applied Sciences. //

The UB team visited the TSA bag security screening area at the Buffalo-Niagara International airport. Below from left: a TSA agent, Kyle Hunt, Jun Zhuang, Ian Unson and Esther Jose.



PROTECTING PUBLIC SPACES

ISE professor **Jun Zhuang** is one of the founding investigators of a new \$36 million, ten-year, Department of Homeland Security (DHS) Centers of Excellence, “Soft-Target Engineering to Neutralize the Threat Reality (SENTRY),” led by Northeastern University.

The new Center of Excellence is focused on developing a system—or Virtual Sentry—that will provide just-in-time information to key decision makers at soft targets, such as stadiums, schools and places of worship, so that they can assess a threat and coordinate a response. The threat can then be neutralized before any harm is done.

Zhuang is leading one the four thrust areas, “Threat Risk Assessment, Prediction and Deterrence,” and a project within this area that is focused on developing a novel game-theoretic framework for multi-target, multi-layer defense against strategic attackers.

In the Protecting Soft Targets project, Zhuang and his team are addressing the problem of strategic allocation of resources to protect soft targets from adaptive adversaries. They are using methods from game theory and adversarial risk and decision analysis to construct models that represent the adversary as a rational actor with their own motivations, objectives, beliefs, and capabilities. They then seek to optimize allocation of countermeasures implemented at soft targets to maximize the defenders’ expected utility.

The models are validated using behavioral games to better understand decision making by rational adaptive adversaries, and are then applied to specific soft targets to demonstrate their efficacy and provide examples of transitioning these models and methodology into practice to provide greater and more efficient security for soft targets. The team is working with local stakeholders including school districts and places of worship, to develop case studies. //

“IF SUCCESSFUL, THIS PROJECT WILL GENERATE NEW INSIGHTS, MODELS, AND DECISION SUPPORT TOOLS TO MORE EFFICIENTLY ALLOCATE LIMITED RESOURCES, WHICH COULD SAVE LIVES AND REDUCE ECONOMIC LOSSES.”

— Zhuang

BUILDINGS THAT STORE CARBON?

DOE AWARDS UB
\$2.2 MILLION TO DEVELOP
ECO-FRIENDLY
INSULATION MATERIALS



Greenhouse gas emissions associated with material manufacturing and construction, renovation, and disposal of buildings at the end of their service life are concentrated at the start of a building's lifetime, making them essential to address given the urgency of meeting national energy and environmental challenges to reach President Biden's goal of zero carbon emissions by 2050.

Funded by the Department of Energy Advanced Research Projects Agency – Energy Harnessing Emissions into Structures Taking Inputs from the Atmosphere program, the UB-led team will

design and additively manufacture modular interlocking superinsulation panel materials using a patented combination of biogenic cellulose (or straw) and superinsulation silica aerogel. The panels will provide high thermal insulation, structural durability, moisture and fire resistance, soundproofing, and easy installation at a low cost. They will also meet embodied and operational carbon-negative emission

requirements and provide recycling/repurposing capabilities.

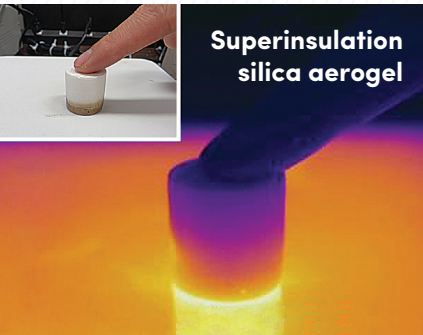
Chi Zhou, ISE associate professor, is leading the effort in scalable manufacturing of biogenic-based interlocking insulation panels of the carbon-storing drywall. His team will explore advanced additive manufacturing technologies to scale up the modular panel production using ambient pressure drying and surface superhydrophobic modification to reduce the carbon emissions and improve the thermal insulation efficiency. Additive manufacturing can add enormous value to the production of carbon-storing thermal insulation building envelopes by on-demand manufacturing, zero-waste fabrication, and shortening supply chains.

The grant is led by **Shenqiang Ren**, a professor of mechanical and aerospace engineering at UB, and includes researchers from civil engineering and architecture at UB, Oak Ridge National Laboratory and CleanFiber. //



“THESE NEW SUSTAINABLE MANUFACTURING TECHNIQUES WILL HELP US FIGHT CLIMATE CHANGE BY SIGNIFICANTLY REDUCING EMISSIONS AND WASTE PRODUCTS.”

— Zhou



Superinsulation
silica aerogel



Mark Karwan, center, poses with his family at the celebration of his career at UB.

CELEBRATING THE CAREER OF MARK KARWAN

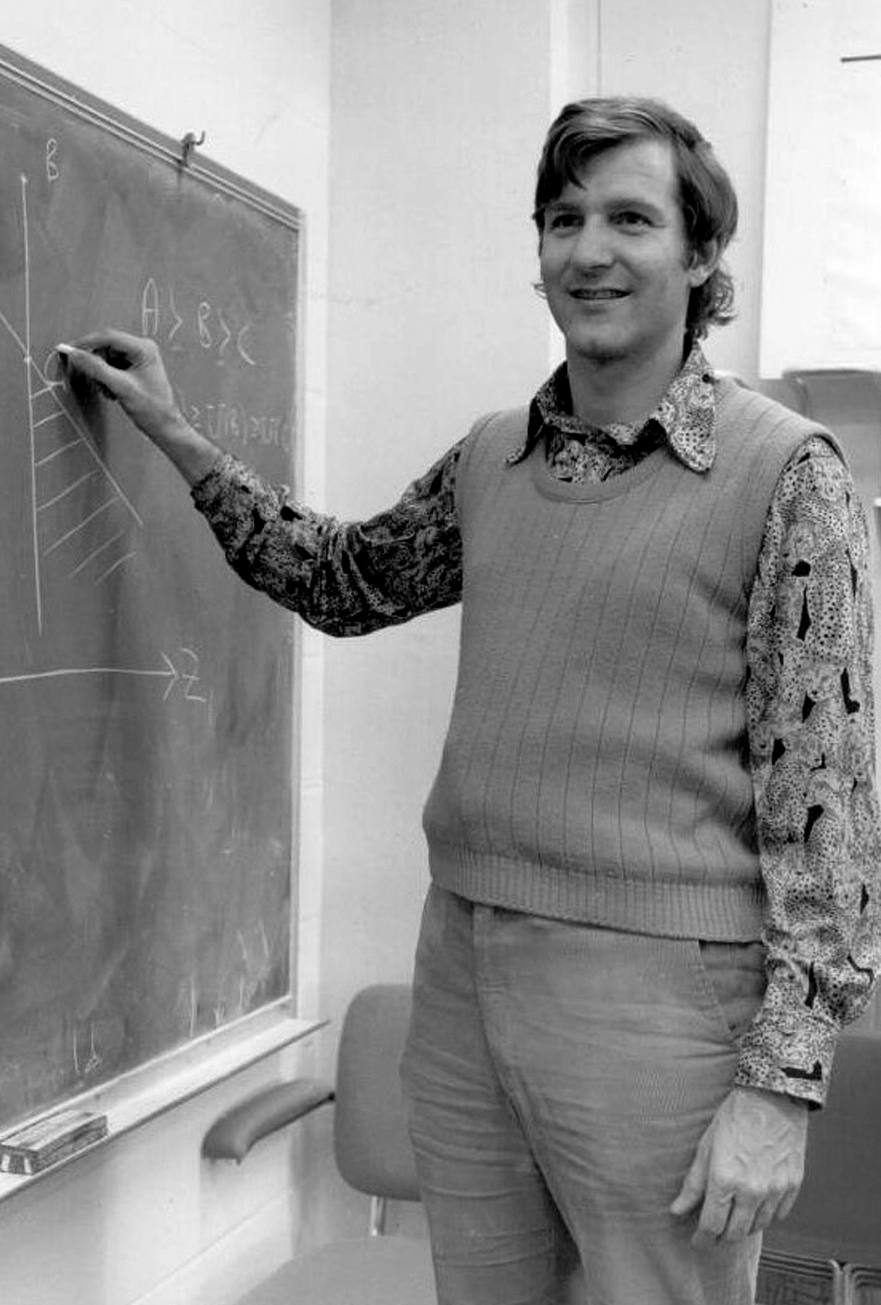
The ISE community came together with family and friends to celebrate the professional accomplishments of Mark Karwan, SUNY Distinguished Professor of Teaching and Praxair Professor in Operations Research and former dean of the School of Engineering and Applied Sciences. He retired this year after a distinguished 46-year career at UB.

Karwan began his career at UB in 1976, after receiving his PhD from Georgia Tech. During his time at UB, he advised or co-advised 41 PhD students, as well as mentored many undergraduate and graduate students. His research on mathematical programming, including modeling and algorithmic development, has been applied in such diverse areas as sports scheduling, hazardous waste routing and military path planning. He is also regarded as an innovative and thoughtful leader, who served as chair of ISE from 1987-1992, and dean of SEAS from 1994-2006.

Current ISE department chair and professor **Victor Paquet** organized the event, which concluded the department's year-long celebration of its 75th anniversary. It featured an hour-long seminar in which Karwan reflected on his career as a professor, researcher and leader, lunch and a reception, and testimonials and stories from in-person and virtual attendees. //

"MARK KARWAN IS THE EPITOME OF ENGINEERING AT UB. A DISTINGUISHED FACULTY MEMBER, FORMER CHAIR AND DEAN, AND A MENTOR TO MANY, INCLUDING ME, HE HAS SERVED WITH DISTINCTION. HIS COLLEGIALLY, INFECTIOUS HUMOR AND POSITIVE ATTITUDE WAS AND WILL CONTINUE TO BE AN ASSET TO OUR UNIVERSITY."

— A. Scott Weber,
 Provost and Executive Vice
 President for
 Academic Affairs



Left: Mark Karwan c. 1980s. Above: ISE professor and chair Victor Paquet delivers remarks. Below: Former students and colleagues shared stories and testimonials of Karwan. Bottom left: Karwan and Ann Bisantz, former chair of ISE; now UB dean of undergraduate education. Bottom right: Karwan talking with guests at the reception.



BATTA RECEIVES IISE FRANK AND LILLIAN GILBRETH INDUSTRIAL ENGINEERING AWARD

Rajan Batta is the 2022 recipient of the Institute of Industrial & Systems Engineers (IISE) Frank and Lillian Gilbreth Industrial Engineering Award. The award is IISE's highest and most esteemed honor and recognizes one individual each year who has distinguished themselves through contributions to the welfare of mankind in the field of industrial engineering.

Batta uses industrial engineering techniques, such as operations research, to develop and analyze mathematical models of systems critical to society. His research interests range from transportation planning and analysis of urban crime patterns to military logistics, telecommunications and homeland defense. His recent work has included hazardous materials routing/logistics, UAV routing/scheduling for search missions, convoy routing, routing/scheduling of automated guided vehicles, modeling repair of a transportation network, gasoline supply logistics, and electric vehicle routing and location of charging stations.

He has a sustained record of research funding, receiving more than \$13 million in awards from federal agencies, among them the National Science Foundation and the National Institute of Justice; local governments, including the city of Buffalo; and private industry, such as Boeing, United Airlines and Lockheed Martin.

An excellent teacher and mentor, Batta has supervised or co-supervised over 100 doctoral and master's students. For his contributions as an educator, he has received the IIE Albert G. Holzman Distinguished Educator Award (2015), the UB Excellence in Graduate Student Mentoring Award (2014-2015), and the SUNY Chancellor's Award for Excellence in Teaching (2007). //

"RAJAN IS ONE OF THE MOST PROLIFIC INDUSTRIAL AND SYSTEMS ENGINEERING RESEARCHERS AND EDUCATORS OF HIS TIME. THE CONTRIBUTIONS THAT HE HAS MADE TO TRANSPORTATION, SECURITY AND EMERGENCY RESPONSE SYSTEMS HAVE HAD AN IMPORTANT IMPACT ON SOCIETY."

— Victor Paquet,
ISE Professor and Chair

CAVUOTO NAMED ASSP OUTSTANDING SAFETY EDUCATOR OF THE YEAR

Lora **Cavuoto**, a widely respected educator in the occupational safety and health field and member of the American Society of Safety Professionals for seven years, is ASSP's 2022 William E. Tarrant's Outstanding Safety Educator.

Cavuoto is an associate professor and serves as the director of the occupational health and safety training program since 2017. She also received the WNY Safety Professional of the Year Award. These highly prestigious awards recognize her contributions to the ergonomics and safety professions. //



CASUCCI RECEIVES SUNY CHANCELLOR'S AWARD FOR EXCELLENCE IN TEACHING

Sabrina Casucci was honored with the SUNY Chancellor's Award for Excellence in Teaching. The SUNY-level award honors those who consistently demonstrate superb teaching at the undergraduate, graduate or professional level across the SUNY system.

Casucci has taught nearly 1,800 students in traditional classroom settings, fully remote and hybrid flexible formats. She has also advised more than 150 students on their informal coursework, including independent research and capstone projects.

As director of the Engineering Management Program, Casucci led the effort to transform the program into a flexible and fully online format. In just three months, her efforts resulted in 200 enrolled students. In addition, she has worked with 12 ISE faculty members to transform their traditional, in-person classroom courses into 14 high-quality online courses that blend exceptional asynchronous instruction and synchronous interactions.

Casucci, an assistant professor, was also recognized with a UB Teaching Innovation Award. //

ZHOU RECOGNIZED AS EXCEPTIONAL SCHOLAR

Chi Zhou received UB's 2022 Exceptional Scholar: Sustained Achievement Award. This prestigious award was created by UB in 2002 to honor outstanding professional achievement that has been focused on a particular body of work over a number of years. This award was created to recognize an unprecedented accomplishment in a senior scholar's career, distinguishing a body of work of enduring importance that has gone beyond the norm in a particular field of study. //

WELCOMING OUR NEW FACULTY



Robert DELL

Professor Robert Dell, PhD, joins UB ISE from the Operations Research Department at the Naval Postgraduate School. His NPS leadership roles included Acting Provost from March 2020 to March 2021, Dean of the NPS Graduate School of Operational and Information Sciences from 2019 to March 2022, Executive Director of the NPS Data Science and Analytics Group from 2018 to 2022, and Chair of the OR Department from 2009 to 2015. During his tenure as chair, the department received the 2013 INFORMS Smith Prize.

Dell has received millions of dollars of reimbursable research awarded by the uniformed services, department of defense organizations, and intelligence agencies. He has also applied optimization in the private sector in areas including production scheduling, supply chain design, and professional sports analytics. He has been deployed twice to combat zones. Dell has been awarded the Barchi, Koopman, Rist, and Wanner prizes for military operations research, and served as editor-in-chief of the Military Operations Research Journal from 2015 to 2018.



Sabrina CASUCCI

Assistant Professor Sabrina Casucci, PhD, is focused on developing precision health solutions and improving data driven decision making for complex, vulnerable patients. Her current work includes modeling health outcomes and risk factors for persons with dementia and building technological solutions to coordinate primary care and social service providers during care transitions for high need and cost patients. In her previous role as Associate Professor of Teaching for UB ISE, she led the development of the online ME in Engineering Management degree program. She has also received the SUNY Chancellor Award for Excellence in Teaching and UB Teaching Innovation award.



Diana RAMIREZ-RIOS

Assistant Professor Diana Ramirez-Rios, PhD, joins UB ISE from Rensselaer Polytechnic Institute, where she received her PhD in Transportation Engineering. Her work focuses on freight transportation, supply chain and logistics, and humanitarian/disaster response logistics. Her research includes freight demand modeling, parking simulation, facility location, supply chain coordination, post disaster location and distribution, and cooperative game-theoretic models. She is an active member of several professional organizations including the Transportation Research Board, POMS, and INFORMS. She is the recipient of the Karen and Lester Gerhardt Prize in Science and Engineering, the Thomas Archibald Bedford Prize, the WTS Helene M. Overly/Leonard Braun Graduate Scholarship, ENO Future Leaders in Transportation Fellow, and the CEE-MIT Rising Stars.



Gohar AZEEM

Assistant Professor of Teaching Gohar Azeem, PhD, earned his PhD in Industrial Engineering from the University of Texas at Arlington in May 2022. His doctoral dissertation focused on using artificial intelligence and automated data capturing technologies to optimize supply chains for COVID-19 therapeutics for at-risk communities. He also served as an Assistant Director at RFID, Artificial Intelligence and Data Science Labs at the University of Texas at Arlington from 2021-22.

His background includes industry experience of more than six years in different executive roles with some of the world's leading organizations including Shell & Coca-Cola. His areas of expertise include supply chain and logistics, operations research, artificial intelligence, RFID technologies, engineering management, project management and continuous improvement.



Abbas KERAMATI

Assistant Professor of Teaching Abbas Keramati, PhD, joins UB ISE from the School of Information Technology Management at Toronto Metropolitan University, where he was a limited term assistant professor. He was also an associate professor and chair of the School of Industrial Engineering at the University of Tehran. His research focuses on information systems and firm level performance, productivity and quality. He has published several papers in well-known journals such as Applied Soft Computing, Applied Mathematical Modelling, International Journal of Production Research, Neural Computing and Applications and Computers and Education.

OUR NEWLY TENURED FACULTY



Chase MURRAY

Associate Professor Chase Murray's research focuses on the optimization of complex systems, with emphasis on logistics networks, facility layout, and dynamic vehicle routing problems that involve coordination of uncrewed aerial vehicles. His work is highly relevant to the service delivery and military problems of today and the future. His work has been funded by government agencies including the Defense Advanced Research Projects Agency, Office of Naval Research, and the National Institute on Disability, Independent Living, and Rehabilitation Research, and his publications are found in the top-tier journals of his field. According to Google Scholar, his paper, "The flying sidekick traveling salesman problem: Optimization of drone-assisted parcel delivery" in Transportation Research Part C: Emerging Technologies (2015) has over 900 citations. //

SUDIT NAMED SEAS ASSOCIATE DEAN OF GRADUATE EDUCATION AND RESEARCH

Moises **Sudit** has been named Associate Dean of Graduate Education and Research in the School of Engineering and Applied Sciences, where he is leading all aspects of the school's graduate-level educational programs and major research initiatives.

Sudit brings years of leadership in research and education to his new role. He is a professor in ISE and the executive director of the Center for Multisource Information Fusion. He previously served as UB's associate vice president for sponsored research, where he managed the university's \$170 million sponsored research activities and technology transfer office.

An expert in data fusion and military operations research, Sudit is a member of INFORMS, IEEE, IISE, SPIE, and the International Society of Information Fusion. He is a National Research Council Fellow through the Information Directorate at the Air Force Research Laboratory and has received a number of scholarly and teaching awards. He also received the prestigious IBM Faculty Scholarship Award. He has published more than 60 peer-reviewed publications and has been Principal Investigator or co-Principal Investigator on sponsored research totaling over \$60 million. //

"SEAS IS A CRITICAL PILLAR FOR THE GROWTH OF SPONSORED RESEARCH AT UB. WE NEED TO ATTRACT THE BEST FACULTY AND GRADUATE STUDENTS TO CONTINUE TO PROVIDE STATE-OF-THE-ART ADVANCEMENTS THAT BENEFIT SOCIETY AS A WHOLE.

— Sudit

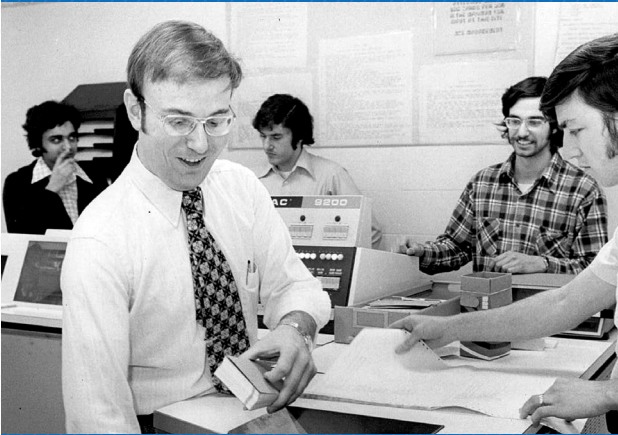
LI LIN RETIRES AFTER 33 YEARS WITH UB ISE

Professor **Li Lin** retired this past August after a very successful 33-year career where he taught a wide variety of graduate and undergraduate courses and, as major professor, mentored 20 PhD students and over 30 MS students. His research focused on modeling and control of manufacturing and healthcare systems, finance in healthcare, and global health equity. During his time at UB, he completed over fifty industry projects aimed at improving operations at manufacturing facilities, healthcare facilities and other organizations. He was awarded the UB Exceptional Scholar Award for Sustained Achievement in 2010 and the SUNY Chancellor's Award for Excellence in Faculty Service in 2014. //



1949 - 2022

WAYNE BIALAS



Wayne Bialas, ISE Associate Professor Emeritus, passed away on June 4, 2022, after battling a serious illness. Bialas formally retired from UB in 2008, after a successful 30-year career at UB.

During his time with ISE, Bialas devoted himself unselfishly to the department and its students. Bialas served as IE Director of Undergraduate Studies and IE Director of Graduate Studies and was the faculty advisor to the UB chapters of Omega Rho, Tau Beta Pi, Institute of Industrial and Systems Engineers, Operations Research Society, and the IE Graduate Student Association. He was recognized four times as Professor of the Year by the New York NU Chapter of Tau Beta Pi and was a founding member of Omega Rho.

Bialas was a statistics intellect who was perhaps best known at UB for his exceptional instruction of EAS 305 Applied Probability and Statistics. He regularly went "above and beyond" to ensure that his students were welcomed into the UB ISE community and provided students every opportunity to master their coursework. He is remembered fondly by many colleagues and hundreds of students for his generosity, good humor, and unique views on life. //

"WAYNE WAS MUCH MORE THAN A TALENTED EDUCATOR. HE WAS CLOSE FRIEND WHO HELPED ME APPRECIATE THE SMALL BASIC THINGS IN LIFE THAT MANY OF US TAKE FOR GRANTED."

— Victor Paquet,
ISE Professor and Chair

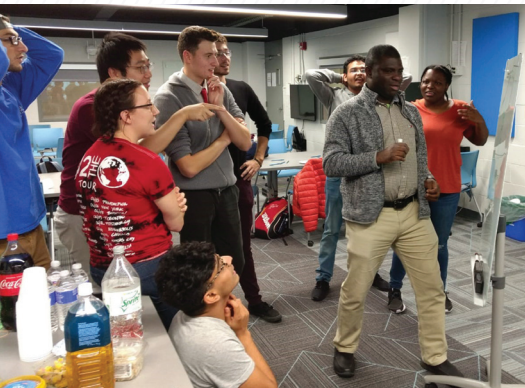


INFORMS UB STUDENT CHAPTER AWARDED HIGHEST HONORS FOR THREE YEARS IN A ROW



UB INFORMS student chapter board members accept the summa cum laude award at the Annual INFORMS conference. From left: Courtney Burris, Kaylie Butt, John Becker, and Laura Albert, President-elect of INFORMS.

The Institute of Operations Research and Management Sciences (INFORMS) UB Student Chapter was one of only five among 40 university student chapters to receive the institute's highest student chapter honor, summa cum laude status. This is the third year in a row that UB has received this honor; one that is based on the impact the chapter has on society through communications, special events, and community service.



During the 2021–22 academic year, the student chapter hosted 19 events, including academic and professional development workshops, panels, speakers, and social gatherings. The most well attended workshops were a two-part Gourbi interactive coding session, a two-part LaTeX and Beamer workshop, and a GitHub

training session. In addition, a panel of alumni from the American Airlines Operations Research and Advanced Analytics Department discussed life after graduate school and industrial engineering opportunities in the airline industry.

The student chapter's "Pro-Bono Analytics Program" assisted two not-for-profit organizations, Bloom Early Learning Center, a pre-school that provides offerings in general and special education for students along with music, occupational, speech, and physical therapies, and Hope Rising Together, an organization devoted to Buffalo's renewal through youth activities, volunteering, and giving opportunities. //

"IT'S REALLY QUITE INCREDIBLE WHAT THIS CHAPTER HAS BEEN ABLE TO ACHIEVE AND HOW MUCH SUPPORT IT HAS PROVIDED TO THE STUDENTS IN UB ISE. I AM SO PROUD OF WHAT THIS CHAPTER HAS ACCOMPLISHED DURING THE FIVE YEARS I HAVE BEEN HERE."

— Courtney Burris,
PhD student and
2020-21 INFORMS
Student Chapter
President

SCHOLARSHIP RECIPIENTS

KARWAN/THOMAS UNDERGRADUATE SCHOLARSHIP

Eric Hladik

KARWAN/THOMAS UNDERGRADUATE SCHOLARSHIP

Gabriel D'Addario

FREDRICK H. THOMAS MEMORIAL SCHOLARSHIP

Nicole Guldin

JOHN ZAHORJAN MEMORIAL SCHOLARSHIP

Christopher Donnelly

JOHN ZAHORJAN MEMORIAL SCHOLARSHIP

Amy Faville

JOHN ZAHORJAN MEMORIAL SCHOLARSHIP

Stephanie Lucille Parshall

DRURY/THOMAS SCHOLARSHIP

Chinar Sanjeev

2022 DEPARTMENTAL AWARDS

CHAIR'S AWARD

Madison Dailey

"THE ISE CHAIR'S AWARD HAS SERVED AS A MOTIVATOR FOR ME TO FOCUS ON AND SUCCEED IN MY UNDERGRADUATE STUDIES AND RESEARCH. I LOOK FORWARD TO THE CHALLENGES AND OPPORTUNITIES IN MY CAREER THAT UB HAS THOROUGHLY PREPARED ME FOR."



GRADUATE STUDENT RESEARCHER OF THE YEAR

Kyle Hunt

Honorable Mention
Sahand Hajifar



GRADUATE STUDENT TEACHER OF THE YEAR

Qingyang Xiao

Honorable Mention
Zhiyuan Wei



GRADUATE STUDENT SERVICE AND LEADERSHIP AWARD

John Becker

Honorable Mention
Kaylie Butt



ENGINEERING MANAGEMENT PROGRAM STUDENT SERVICE AND LEADERSHIP AWARD

Kimberly Hodges

ISE WELCOMES NEW ADVISORY BOARD CHAIR



Steve KRENZER

Krenzer is President and Board Member of Thinkific, a Vancouver-based provider of online courses. Steve was born in Rochester, NY and enrolled in UB in fall of 1976, when there were fewer than six buildings open on the Amherst Campus. After earning his BS in industrial engineering, Steve worked as an engineer for nearly 10 years before making the move to general management, ultimately resulting in several CEO and other leadership positions in both private and public companies.

“I’M HONORED TO BE THE CHAIR OF THE ISE ADVISORY BOARD AND TO RETURN TO THE UB FAMILY AFTER DECADES AWAY. DR. PAQUET AND THE FACULTY ARE DOING GREAT THINGS, ADVANCING THE DEPARTMENT TO BEING ONE OF THE TOP INDUSTRIAL ENGINEERING PROGRAMS IN THE COUNTRY.”

ISE ACKNOWLEDGES 10 YEARS OF SERVICE AS BOARD CHAIR



Patrick ABRAMI

Abrami is a member of the New Hampshire House of Representatives where he serves as Vice-Chair of the House Ways and Means Committee. Pat spent most of his industrial engineering career working for Applied Management Systems, a company that focuses on information systems, performance improvement, and FTE benchmarking in healthcare. He served in positions of staff associate, senior staff associate, manager for the Southeast Massachusetts region, and regional director of both the Northern New England and Atlantic regions prior to becoming a company partner. He served as the founding Chair of the UB ISE Advisory Board from 2011-2021. //

OUR 2022 BOARD MEMBERS

Patrick Abrami

NH State Representative
Owner, Applied
Management Systems

Mario Adams-Campos

Administrative Specialist
National Defense University

Oyinkansola Akintan

Senior Analyst of
Operations and Analytics
Gabriel & Company

Mitch Berg

Chief Technology Officer
Kubient

Linda Boyle

Professor, Department
of Industrial and Systems
Engineering, University of
Washington

Sean Cunningham

Technical Assistant to
Group Vice President
Intel Foundry Services

Patrick Dempsey

Senior Scientist, National
Institute for Occupational
Safety and Health

Steve Krenzer, Chair

President and Member
of the Board of Directors,
Thinkific

Larry Megan

Head of Digital, Baldwin
Richardson Foods

Frank Mufalli

Head of Advanced
Analytics, Linde Digital

Seth Myones

President, Ridge
Consultants LLC

Robert Tom

Senior Director of Product
Engineering (retired),
Fisher-Price



UB HOSTS 2022 MATERIALS HANDLING TEACHERS INSTITUTE

Over 40 university faculty from the U.S., Canada, Brazil, Chile, Columbia, France and Norway descended upon the UB North Campus this past August to participate in the Materials Handling Teachers Institute, a three-day educational workshop designed to help university faculty become better, more confident instructors.

The program consisted of presentations, demonstrations and activities covering topics such as how to manage a supply chain in an uncertain global economy, applying games in the classroom to enhance student understanding of production planning and control, the role of drones in future service delivery and how to manage ergonomics and safety in Industry 4.0 environments.

Participants toured nearby Cummins and GM engine manufacturing plants and Buffalo Manufacturing Works, a company that leads industry-research partnerships to advance manufacturing practices regionally and nationally. MHTI participants also got the opportunity to fly drones at UB's new Structure for Outdoor Autonomy Research UAV facility.

Victor Paquet, Professor and Chair of ISE, served as the MHTI host and **Alice Smith**, UB SEAS Deans Advisory Council and Professor of ISE at Auburn University, served as the MHTI Academic Program Coordinator. The MHTI is held every two years and is sponsored by MHI: The Industry that Makes Supply Chains Work. //



From left: Drone demonstration at UB's SOAR facility, participants enjoy dinner at Buffalo Riverworks in downtown Buffalo, Cummins Engine Plant tour in Jamestown, NY.



University at Buffalo

Department of Industrial and Systems Engineering

School of Engineering and Applied Sciences

342 Bell Hall, Buffalo, New York 14260-2500

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PERMIT #311

Get connected WITH US!

Here are just some of the ways to connect with us and make an impact on future IEs.

- Take a tour
- Take a course
- Attend a UB game
- Attend a speaker series
- Give a presentation
- Meet our students
- Post a job announcement
- Sponsor an internship
- Post a profile
- Recruit at a career fair
- Participate on the ISE Alumni Board

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