# FEARLESS 2020

# FINAL REPORT



THE ERIK JONSSON SCHOOL OF ENGINEERING AND COMPUTER SCIENCE AT THE UNIVERSITY OF TEXAS AT DALLAS

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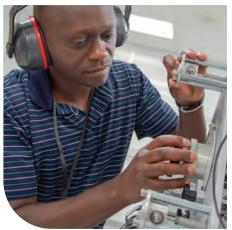
# **Executive Summary and Overview**

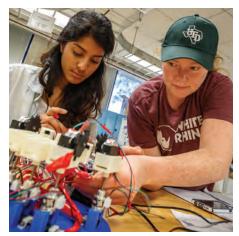


### The Jonsson School

The Erik Jonsson School of Engineering and Computer Science is one of the most rigorous, technologically advanced and diverse programs in the country. It serves as an economic engine of growth and innovation for North Texas with a fervent focus on industry – relevant research and education. The Jonsson School has a legacy of inclusion for number of degrees awarded to women in our most established programs – computer science and electrical engineering. Currently, UT Dallas is tied at second in Texas and 11th in the nation in ethnic diversity, according to U.S. News and World Report.

Since 2008, the Jonsson School has doubled in size with the creation of four new departments and nine new degree programs, including those in the areas of mechanical engineering, systems engineering, materials sciences and engineering, and biomedical engineering. A new 200,000-square-foot engineering building opened in the fall of 2018 and currently houses the Department of Mechanical of Engineering and the dean and her staff. Additionally, the 220,000-square-foot Bioengineering and Sciences Building will help the University accommodate the rapid growth of the Jonsson School.











### Fearless 2020: \$20 Million by 2020

Fearless 2020 was conceived as a comprehensive engagement initiative focused on creating opportunities to transform our community through education. This initiative was built upon our founder's fearless vision of breaking down boundaries and impacting technology across the globe, enabling our community to rise to new levels of excellence.

Fearless 2020 operated with two core priorities:

Impart knowledge in teaching and research to the next generation of global leaders in engineering and computer science.

Enable greater access to higher education for underrepresented and non-traditional students – a gift of talent to North Texas and the world.

We will only achieve these priorities by establishing lifelong partnerships with our alumni and the greater community. Providing such opportunities is the responsibility of every generation and is ingrained in the very psyche of our institution and in the foundation of our community. The Erik Jonsson School of Engineering and Computer Science is privileged to embrace this opportunity for transformational impact. Be fearless with us!

#### **Departments Supported**



BIOENGINEERING



COMPUTER SCIENCE



ELECTRICAL
AND COMPUTER
ENGINEERING



MATERIALS SCIENCES AND ENGINEERING



MECHANICAL ENGINEERING



SYSTEMS ENGINEERING

RESEARCH

UTDESIGN CAPSTONE

**EPICS** 

INSTITUTE FOR INNOVATION AND ENTREPRENEURSHIP

### Jonsson School Executive Council

**HONORARY CHAIRS** 

Philip and Diane Jonsson

The Philip R. Jonsson Foundation

**HONORARY MEMBER** 

Mark Cuban

Owner, Dallas Mavericks

CHAIR

Annette Jackson-Anderson

Vice President Charles Schwab VICE CHAIR

**Neel Gonuguntla** 

President

**US India Chamber of Commerce** 

**MEMBERS** 

Reena Batra

CEO & Founder

Software Professionals

Dinesh Bhatia MS'07. PhD'06

Professor

The University of Texas at Dallas

Ashtok Chitiprolu

**CTO** and Managing Director

**Techstar Group** 

Satyajit P. Doctor (Doc) MS'91

Founder and President Award Solutions, Inc.

Kris Fitzgerald CTO and VP

NTT Data Services

Jim Hellums, PhD'00

Retired Fellow

Texas Instruments

Tahir Hussain BS'94

CEO & Managing Partner

Collide Village

Lou Hutter

Principal

Lou Hutter Consulting

Veronica Lewis

Partner

Gibson, Dunn & Crutcher LLP

Tad McIntosh

President

HumCap

Sean Minter

Founder & CEO

AmplifAI, Inc.

Vinod Nanu

CEO

Moviynt

Andrew Olowu

CTO

Axxess

Neel Reddy BS'09

**Associate Consultant** 

Bain & Company

Scott Richardson

CFO

Celanese

Jenny Sivie BA'94

Director

Johnson Controls

Ronnie Spellman

COO

Mbroh Engineering

Farooq A. Tayab

Partner

Norton Rose Fullbright US LLP

**Spencer Whitney** 

**IT Director** 

State Farm

Yi Zhao MS. PhD'96

Distinguished Alumni

The University of Texas at Dallas

**EX OFFICIO MEMBERS** 

Dr. Stephanie G. Adams

Dean

The Jonsson School

Dr. Poras T. Balsara

Associate Dean

The Jonsson School

Chris Bhatti MA'06

Assistant Vice President

The University of Texas at Dallas

**Kyle Edgington PhD'13** 

Vice President

The University of Texas at Dallas

Dr. Inga Musselman

Provost

The University of Texas at Dallas

THANK YOU. PAST MEMBERS

Pat Dayton MS'07

**Graduate Student Representative** The University of Texas at Dallas

Dr. Robert Greaa

Associate Professor

The University of Texas at Dallas

Rahul Kukreti BS'01, MS'02

Co-founder

mRoads

Dr. Walter Voit BS'05, MS'06

Associate Professor

The University of Texas at Dallas

#### A MESSAGE FROM THE EXECUTIVE COUNCIL CHAIR

### Annette Jackson-Anderson

On behalf of the Jonsson School Executive Council, it is my privilege to announce the final impact numbers and summary report of the Fearless 2020 initiative. The incredible success of this initiative and the impact it has made on students' lives would not have been possible without the passionate donors who supported the innovative vision of Fearless 2020.

The Erik Jonsson School of Engineering and Computer Science at The University of Texas at Dallas succeeded in its first comprehensive and inclusive initiative that resulted in the transformational support to the school through scholarships, fellowships and program sponsorships, all of which will help broaden our impact to the next generation of global leaders.

I want to thank the Jonsson School Executive Council and its members, all of whom have played a key role in advancing the mission of the Jonsson School through the Fearless 2020 initiative. None of this would have been possible without the direction and reinforcement from the Jonsson School development and alumni relations team who saw this as an opportunity to leverage the Jonsson School within North Texas and make it a prominent name within the global STEM community. The leadership from Dr. Poras T. Balsara, associate dean of academic affairs, and his service as interim dean for the beginning of the Fearless 2020 initiative established a clear and decisive plan of action to set the school up for success during Fearless 2020. Since coming on board as dean of the Jonsson School in August 2019, Dr. Stephanie G. Adams helped during the final stages of the initiative to close integral gifts and provide clear direction of how to continue to advocate and expand the Jonsson School beyond Fearless 2020.

As Chair of the Jonsson School Executive Council, it has been exhilarating to see how far the Jonsson School has come in these last four academic years. Being a part of the visionary Fearless 2020 initiative with an innovative and engaged Executive Council, a contributory and distinguished dean, dedicated faculty and staff, and a dynamic development team from the Jonsson School, has made me incredibly proud to serve as chair and be a champion of the STEM community. I am thrilled to see what the next phase of the Jonsson School will be in years to come. I look forward to offering my continued service to support the future achievements of the Jonsson School and the University.

Sincerely,

Annette Jackson-Anderson

Chair

Jonsson School Executive Council



## Campaign Summary and Final Numbers

### Campaign Summary

Fearless 2020 concluded in August 2020, having secured a record breaking \$36.3 million to the Jonsson School of Engineering and Computer Science. Under the leadership of Dr. Stephanie G. Adams, Dr. Poras T. Balsara, Chris Bhatti, Dr. Kyle Edgington, Dr. Inga Musselman and Annette Jackson-Anderson, the Jonsson School successfully launched the Fearless 2020 campaign in August of 2016, which far exceeded its original goal of \$20 million.

Several key factors contributed to the overall success of the Fearless 2020 campaign including: a successful and robust Jonsson School Executive Council, the generosity of corporate partners within the North Texas and global community, the strong pulsating network of the Jonsson School alumni, passionate individual donors with the determination to make a difference within education, and the trust and dedication from Jonsson School faculty and staff members.

The development team at the Jonsson School stewarded our generous donors to maximize their gifts and resources to the endeavors of the school. Through this strategic positioning, donors were able to directly impact students through scholarships, endowments, student organization sponsorships, diversity scholarships, senior capstone projects and furthering the advancement of research within the Jonsson School.

With the first successful campaign under its belt, the Jonsson School is in the perfect position to continue to elevate and leverage these partnerships for the future. The Jonsson School will continue to build upon the Fearless 2020 success and move into the Universitywide campaign, New Dimensions, with the intent of expanding research and educational opportunities to the next generation of engineers and computer scientists, as well as continuing to create greater access to higher education for nontraditional and underrepresented students for North Texas and the world.

### Fearless 2020 Final Numbers

Metric	FY20 Goal	FY17	FY18	FY19	FY20	Final Results
Total Raised for Jonsson School	\$20M	\$13.6M	\$5.1M	\$9.8M	\$7.8M	\$36.3M Raised
Number of Alumni Gifts	2,020	328	596	766	948	2,638 total gifts
Alumni Giving Percentage	6%	2.71%	3.47%	4.33%	5.20%	92% increase in alumni giving
Faculty/Staff Participation	100%	6.8%	37%	51%	55%	708% increase in faculty/staff giving
Market Value of Jonsson School Endowment	\$60M	\$49.2M	\$51.8M	\$53.7M	\$58.2M	18% increase in endowment market value

# Scholarships, Fellowships, Endowments and Partnerships

### Corporate Major Gifts



# Texas Instruments' Early Career Faculty Award - \$5,000,000

For the 50th anniversary of the founding of the University of Texas at Dallas, Texas Instruments Inc. (TI) gifted \$5 million that established an endowment to support early career faculty members in the Department of Electrical and Computer Engineering within the Jonsson School. The gift was intended to help UT Dallas attract and retain promising faculty members who have the potential to become leaders within new and emerging fields of research. Recipients of the award would receive \$50,000 a year for up to six years to support and advance their independent research activities.

The TI Early Faculty Award commemorates the shared history between Texas Instruments and UT Dallas. Three of TI's founders, Eugene McDermott, Erik Jonsson, and Cecil Green, established UT Dallas in 1961 to create educational and research opportunities to the North Texas area and to recruit top-tier talent to work for Texas Instruments. The gift was announced at the University's Founders Day celebration, an annual campus wide event that commemorates the founders of UT Dallas.

#### Axxess Scholars Program - \$500,000

Axxess, a Dallas-based healthcare technology company founded by CEO and UT Dallas Jonsson School alumnus, John Olajide BS'04, created an endowed scholarship for computer science students within the Erik Jonsson School of Engineering and Computer Science in the Fall of 2019. The company's gift of \$500,000 established the Axxess Scholars Program, the largest scholarship program for computer science students in the University's history.

In the fall of 2020, Axxess and the Jonsson School provided awards to four students from the endowed scholarship, making these four students the first cohort of the Axxess Scholars Program.

The significance of the Axxess gift will continue to add value to Computer Science and Software Engineering students for years to come. With the inception of the Axxess Scholars Program, students from various walks of life will have the support from the Axxess community ensuring their success in their professional and academic careers.



#### 2020 Axxess Scholars Cohort

**Errol Gurung** – Senior, Computer Science

Omer Reshef – Junior, Software Engineering

**Feiyan (Alice) Su** – Senior, Software Engineering

Elissa Williams – Senior, Computer Science

# NEC Corporation of America - \$200,000 (\$100,000 for two years, five-year naming)

In 2018, NEC Corporation of America made a significant gift of \$200,000 (\$100,000 for two years) to support facial recognition research within the Erik Jonsson School of Engineering and Computer Science (Jonsson School) and the Naveen Jindal School of Management (Jindal School).

With this type of collaboration between two schools at UT Dallas and different academic disciplines from top-tier faculty, NEC will be able to provide significant ramifications for both the academic field and the commercial use of facial recognition technology.

In addition to the funding made by NEC to both the Jonsson School and the Naveen Jindal School of Management, a terrace at the Engineering and Computer Science West building was named the "NEC Terrace." The terrace serves as a hub for students to network, study, and to collaborate with fellow students and faculty members.

NEC Terrace Ribbon Cutting Ceremony in November 2019. L to R: Richardson City Manager, Dan Johnson; Richardson City Councilman, Bob Dubey; Richardson Mayor Pro Tem, Janet DuPuy; CEO, NEC North America, Mark Ikeno; Richardson City Councilman, Mark Solomon; Jonsson School Dean, Dr. Stephanie G. Adams; UT Dallas President, Dr. Richard Benson



Anthony Mbroh



Univeristy teams, judges, faculty, staff and sponsors who participated in the inaugural Design Showcase, saying thank you to Würth Elektronik.

# Scholarships, Fellowships, Endowments and Partnerships (continued)

### Corporate Major Gifts

# Mbroh Endowed Scholarship for Diversity Scholars - \$50,000

Mbroh Engineering, a Dallas-based engineering design, consulting and professional services firm, made a \$50,000 gift on the Fourth Annual Comets Giving Day that created the first endowed scholarship for the Diversity Scholars Program that would directly benefit Jonsson School students. A portion of their \$50,000 gift went to support the UT Dallas chapter of the National Society of Black Engineers (NSBE).

President of Mbroh Engineering, Anthony Mbroh, wanted to make a difference in students' lives by providing financial support so students can focus on achieving academic excellence. In 2019, Mbroh also supported the Jonsson School by making a leadership commitment to the Jonsson School Executive Council with their COO, Ronnie Spellman. Spellman was integral in solidifying the diversity scholarship and NSBE gift from Mbroh Engineering.

#### UTDesign Startup Challenge sponsored by Naya Ventures, BioWorld, PlainsCapital (last three years)

Innovation and entrepreneurship serve as an important cornerstone of UT Dallas and has been used to foster a community of collaboration between students, faculty, alumni and corporate partners. In 2017, Naya Ventures and PlainsCapital Bank came together to provide seed funding for the UTDesign Startup Challenge. The following year, BioWorld came on board to sponsor this program as well.

The UTDesign Startup Challenge leverages experiential learning through the Erik Jonsson School of Engineering and Computer Science's UTDesign senior capstone course to bring high-potential technology startups to life. Those teams selected will receive \$15,000 of engineering services over one or two semesters, a technical mentor, business coaches, and \$5,000 in seed money to grow their business. The project will culminate in the UTDesign Capstone Demo Day where each participating startup will present their prototype.

### State Farm Endowed STEM Scholarship Fund - \$25,000

In January of 2020, State Farm established its first endowment within the Jonsson School of Engineering and Computer Science, the State Farm STEM Scholarship Fund. The endowment was funded with the purpose of creating lasting investments toward undergraduate students' education in STEM related fields. Applicants and recipients of the scholarship are intended for engineering and computer science undergraduate students who are active in student organizations that promote women in STEM or students who have made an impact in advancing women in STEM fields through volunteerism, advocacy or similar activities.

## Würth Elektronik - \$20,000 (first ECE Design Showcase)

Würth Elektronik provided a gift of \$20,000 in January 2019 that served as seed money to establish the very first ExCEllence in Senior Design Showcase for the Department of Electrical and Computer Engineering in the Jonsson School of Engineering and Computer Science. The event, held in May of 2019, was the first of its kind for electrical and computer engineering students in the Southwest region of the United States. The Department of Electrical and Computer Engineering welcomed teams and faculty from 13 universities for a day of friendly competition. As a result, UT Dallas and the University of New Mexico collaborated to design and prototype a next generation firefighter safety/ communication device. Additionally, the showcase led to a joint National Science Foundation proposal submission between UT Dallas and the University of Houston to allow their senior design teams to collaboratively work on NASA's Apollo data with the opportunity to work on-site at NASA.

# Individual Major Gifts and Partnerships

#### Margaret McDermott – Anonymous Donation to ECSW Building (\$10,000,000)

Margaret McDermott donated \$10 million in the fall of 2016 to help fund the \$110 million construction of the Engineering and Computer Science West building (ECSW). The building was created to serve as the main hub for the Jonsson School of Engineering and Computer Science. With several new auditoriums, classrooms, lecture halls, laboratories, student lounges, the Axxess Atrium, and the NEC Terrace, this new building has equipped the Jonsson School with resources to provide a world-class learning experience for generations of students.

With support from generous donors like Margaret McDermott, the ECSW building is a facility that is able to foster interdisciplinary collaboration within the Jonsson School, one that was not fully achieved in facilities prior to the building of ECSW. Margaret McDermott has been a long-time supporter and donor of UT Dallas through her husband's affiliation as one of the founders of UT Dallas. Significant advancements like the ECSW building will leave a lasting impression on students, faculty and alumni of how Margaret McDermott's impact within education has transformed the landscape of UT Dallas.

#### Mark Cuban Partnership

The energetic and innovative Mark Cuban began his partnership with UT Dallas, and specifically, the Erik Jonsson School of Engineering and Computer Science in 2018 when he made a significant gift of \$50,000 to support a series of coding camps for Dallas-area students.

The gift went to the Center of Computer Science Education and Outreach (CCSEO) within the Jonsson School. CCSEO aims to fill the gap through afterschool coding camps within Title I elementary schools in North Texas. The initiatives of CCSEO expose students to logical thinking and programming with a specific emphasis on supporting schools with a high concentration of minority students underrepresented in STEM fields. Cuban's commitment led the CCSEO to reach an additional number of 2,500 students and commit 10 new schools within Dallas ISD and Garland ISD.

In addition to this significant gift to the Jonsson School, Cuban is an "Honorary Member" of the Jonsson School Executive Council. Cuban demonstrates a commitment to the vision and goals of the Jonsson School of Engineering and Computer Science and continues to be an advocate for STEM education in the community. Committed to coding camps at the Jonsson School, Cuban has provided additional financial support to further reach students within the North Texas community.

# Brewster Waddell – First Endowment to UTDesign Program (\$10,000)

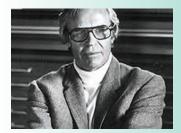
Brewster Waddell established the first endowed gift to the UTDesign program in honor of his late father, Theodore Waddell. The Theodore Hughes Waddell Opportunity Fund for UTDesign is used to support students within the signature senior capstone program.

#### Reena Batra – Second Endowment to UTDesign Program

Reena Batra, the CEO of Software Professionals Inc., established a permanent endowment for the UTDesign Senior Capstone program to equip engineering and computer science students with the tools and support they need during their senior design capstone program. Her gift to the UTDesign Senior Capstone program will instill a passion of diversity and belonging to the fields of engineering, technology, and computer science through Jonsson School students who enter into the program.



Margaret McDermott



Theodore Waddell



Mark Cuban pictured with the UT Dallas Department of Computer Science.

## **Alumni Giving**

Metric	FY20 Goal	FY17	FY18	FY19	FY20	Final Results
Number of Alumni Gifts	2,020	328	596	766	948	2,638 total gifts
Alumni Giving Percentage	6%	2.71%	3.47%	4.33%	5.21%	92% increase in alumni giving

With the launch of Fearless 2020 in 2016, the Jonsson School development team made a strategic effort to engage Jonsson School alumni through various methods of engagement and giving. With a goal of engaging corporations and their UTD alumni, the growth of alumni giving and support has grown significantly.

Since 2016, there has been a 92% increase in alumni giving. With the help of funding scholarships, fellowships, establishing endowments, sponsorships and Comets Giving Day, this number has greatly increased. As of August 2020, the Jonsson School leads in alumni giving percentages across all eight schools at UT Dallas.

### Alumni Stories

Here are two examples of how Jonsson School alumni are making a difference for students at the Jonsson School. The support they received from faculty, fellow students and an exceptional educational career inspired them to give back to generations of future engineers and computer scientists.

#### John Olajide, BS'04, Telecommunications Engineering, Jonsson School of Engineering and Computer Science

John Olajide BS'04, a native of Nigeria, worked a part time job in health care as a student to help pay for his degree in telecommunications engineering at UT Dallas. After graduation, in 2007, Olajide founded Axxess, a Dallas-based technology company that streamlines operations for healthcare agencies across the globe. Since its inception, Axxess has served more than 2 million patients in North America and is utilized by more than 7,000 organizations across the country.

As an alum, he became engaged in various areas of the University. In 2016, he became a judge for the Big Idea Competition hosted by the UT Dallas Institute for Innovation and Entrepreneurship (IIE). His interest in the IIE was sparked by his entrepreneurial nature and the success of his company, Axxess.

Olajide received the University's Distinguished Alumni Award for his major impact on UT Dallas, specifically for creating an opportunity fund for the UT Dallas chapter of the National Society of Black Engineers, the student organization that he was a part of as a student.

In October 2019, Axxess, with support and direction from Olajide, announced the creation of a new endowed scholarship for the Jonsson School. The \$500,000 gift established the Axxess Scholars Program, UT Dallas' largest scholarship program for computer science students. In honor of this contribution, the atrium at the Engineering and Computer Science West building has been named for the company and serves as a hub for engineering and University faculty, staff and students.

Olajide's impact through Axxess as well as his personal impact, is nurturing the next generation of students through philanthropic gifts and educational experiences.



"I'm a very proud UT Dallas alumnus. Some of the brightest engineers in the country graduate from this school, and the opportunities are limitless for them. I'm glad to help and support their dreams so that they can make a difference in the world. If they succeed, we all succeed, and I'm dedicated to helping make that happen."

- John Olajide, BS'04



#### Anuroop Kanuri, MS '07, MBA'11 – Alum Establishes Opportunity Fund in Honor of Retired Staff Member

The impact faculty and staff have on Jonsson School alumni is profound both on a professional and personal basis. This was the case for Anuroop Kanuri and his wife Hari Priya Atluri, MS'12, who established an endowed opportunity fund in honor of Kanuri's former on-campus supervisor, Kathy Gribble, a retired program coordinator of special programs in the Department of Electrical and Computer Engineering within the Jonsson School. The opportunity fund was established to support future engineering students.

While working on his master's in computer engineering in 2007, Kanuri applied to work as a part-time student worker under Gribble in the ECE department to help pay for his family's living and educational expenses.

Through Gribble's leadership, Kanuri grew into a model worker and learned how important leadership is when working in any professional environment.

After Kanuri and his wife obtained their master's and MBA degrees, Kanuri stayed in touch with UT Dallas and the Jonsson School. He soon came into contact with the Jonsson development team who helped him establish an opportunity fund following Kanuri's own professional and financial success.

Kanuri and his wife established an opportunity fund in honor of his mentor, Kathy Gribble. Through this opportunity fund, Kanuri and his wife will continue to transform generations of students to come, thanks to a professional relationship between Kanuri and Kathy Gribble. The level of compassion and dedication from our faculty and staff to our students is one of inspiration and hope. The Jonsson School faculty and staff are one of the reasons why we have deeply rooted alumni relationships that in turn will help the future of Jonsson School students in years to come.

"Kathy was so caring that you didn't want to let her down .... Her support then was invaluable. She showed me the most important attribute of being a boss – that taking care of your team comes first. This lesson still guides me today in my career."

- Anuroop Kanuri, MS '07, MBA'll

# Alumni Engagement



# Engagement Events and Volunteer Opportunities for Jonsson School Alumni

In addition to corporate engagement events, the Jonsson School development team has created strategic alumni chapters for some departments in the Jonsson School. Below are the members of two chapters, including members from the Jonsson School Executive Council that are alumni.

#### Computer Science Alumni Chapter

Shradha Aiyer – Axxess

**Jonathan Bucio** – Mr. Cooper

Max Fraizer - Apple

**Alfonso Lopez** – Raytheon

**Grace Kaldawi Betancourt** – Capital One

**Shrinath Parikh** – Amazon

#### Electrical and Computer Engineering Alumni Chapter

**Oren Eliezer** – Apogee Semiconductor

Kyle Graves - Snell & Wilmer

Raja Mir - Nokia, Inc.

**Laura Mueller** – Texas Instruments

Nicole Skarke –Just Fly Design

**Garrett Staas** – L3Harris Technologies

#### **Alumni Corporate Engagement**

In the last few years, the Jonsson School development team has made three trips to the West Coast for conferences. While there, the team took the opportunity to host an alumni receptions and invited UT Dallas alumni from top corporations in the area.

#### UT Dallas Alumni Meetup – Qualcomm & Amazon

In June of 2019, UT Dallas Jonsson School hosted an alumni meetup in San Diego at Qualcomm, a wireless communications company that has more than 200 alumni from UT Dallas working for them. Alumni were invited to stop by and connect with old friends and network with the newest alumni (photo above).

In addition to Qualcomm, the development team hosted an alumni meetup reception in June 2019 at Amazon headquarters in Seattle, Washington. Amazon is popular among UT Dallas alumni with more than 1,200 alumni working for them. The meetup was a great opportunity for UT Dallas and the Jonsson School to connect with alumni outside of the North Texas region and provide updates to the progress and growth of UT Dallas on a national and global scale.

# Materials Sciences Alumni Event with Panel Discussion Participants

In the fall of 2019 on UT Dallas' Home-coming Weekend, the department of Materials Science and Engineering (MSE) hosted a special seminar by guest MSE alumni and an alumni panel.

The event was for current MSE students to hear from former students of the MSE department share their career journey, discuss networking opportunities and provide feedback and advice to graduate students. The event was overwhelmingly successful and has started an annual alumni event for the MSE department.

The seminar featured two alumni:

- Dr. Marcela Mireles, University of Rochester, "At the Intersection Between Materials and Biomedical Engineering, Using Nanospheres for Fabrication at the Nanoscale"
- Dr. John Murphy, Patrn, "MEMs, Electronics, and Photonics Technology Group at LLNL: How I Got Here and What I Do Now"

The alumni panel featured four MSE alumni:

- Connie Manz, Qualia, Inc.
- Dr. Marcela Mireles, University of Rochester
- Dr. John Murphy, Patrn
- Dr. Ecatherina (Katy) Roodenko, Max-IR Labs

# Mechanical Engineering Reception for Alumni Engagement

In the fall of 2018, the Department of Mechanical Engineering at the Jonsson School hosted an informal alumni reception in the newly built ECSW Building. The event featured remarks from Dr. Mario Rotea, then department head of mechanical engineering, followed by a networking session and brief remarks from the mechanical engineering leadership and the Jonsson School development and alumni relations leadership. Alumni then participated in a bingo-style treasure hunt that encouraged guests and alumni to tour the building and become familiar with the Department of Mechanical Engineering's new "home".

If you're looking to get involved as an alumni through financial or professional support, please contact Katie Burchfiel at katie.burchfiel@utdallas.edu.

# **Faculty and Staff Giving**

Metric	FY20 Goal	FY17	FY18	FY19	FY20	Final Results
Faculty/Staff Participation	100%	6.8%	37%	51%	55%	708% increase in faculty/staff giving

#### Dean Stephanie G. Adams Opportunity Fund

Dean Adams established the Stephanie G. Adams Opportunity Fund as a permanent endowment to provide support for student organizations within the Jonsson School of Engineering and Computer Science.

One of the goals of the Jonsson School is to produce versatile engineering students equipped not only with technical expertise, but with innovative and entrepreneurial skills. Because of this, Dean Adams has established an opportunity fund within the Jonsson School that supports all 23 Jonsson School student organizations. Student organizations help likeminded individuals connect, collaborate, organize and socialize. Students are able to become members as well as take on leadership roles in guiding an organization's activities. When the Jonsson School students are involved in organizations that continue to refine their technical, innovative and entrepreneurial skills, the Jonsson School is able to expand student talent to a global platform in the world of engineering and computer science.

#### Dr. Ravi Prakash and the Student Emergency Fund

Dr. Ravi Prakash, a professor in the computer science department at the Jonsson School, rallied fellow faculty and staff members as well as Jonsson School alumni to give to the Student Emergency Fund in the spring of 2020. With the fund totaling over \$240,000, Dr. Prakash helped bring together a community of former students and dedicated faculty and staff to assist their fellow Comets in need.

When asked about why he prioritized getting support for the Student Emergency Fund and giving back to UT Dallas, he said simply: "If you go out to donors and ask them for support, one of the first things they ask and consider is if your own employees give back to their place of work. If our donors value our University and the work we do and give financially, then so should we. I was an international student 30 years back; I understand what it feels like to be new to a country and having to adjust to a new culture. It's a welcoming country, but you don't have your full safety net around you that your family provides. You've walked the same path, and many of our students struggle financially. Any help we can provide, even the smallest, goes a long way."

At the beginning of the COVID-19 pandemic in the spring of 2020, UT Dallas created the Student Emergency Fund as well as the International Student Emergency Fund.

#### Dr. Jey Veerasamy and K-12 Coding Camps

Dr. Jey Veerasamy, a professor of computer science and the director of the Center for Computer Science Education and Outreach (CCSEO), oversees multiple outreach programs aimed at introducing computer programming skills to K-12 students in the North Texas area. His primary focus is hosting coding camps throughout the entire year, including the holiday breaks and summer. These camps and workshops have a particular focus on cyber defense, robotics, game design, coding competitions and app development. The CCSEO also offers teacher training workshops and professional development programs for adults.

Dr. Veerasamy has been integral in securing sponsorships and funding from various corporate partners and foundations across the North Texas region for these K-12 coding camps. This has allowed the coding camps to reach a larger audience of students at no cost to independent school districts or families. The Mark Cuban Foundation has been a major partner of the Center of Computer Science Education and Outreach and has made significant gifts to expand the center's outreach to students by covering all participation costs. Dr. Veerasamy's stewardship of the Mark Cuban Foundation and other corporate partners has resulted in the CCSEO to reach students and communities with a high concentration of minority students underrepresented in STEM fields.





# **Comets Giving Day**

Metric	2017 Giving Day	2018 Giving Day	2019 Giving Day	2020 Giving Day
Total Raised for the Jonsson School	\$4,708	\$73,264	\$100,188	\$104,046
Number of Gifts	117	487	656	467

Since its inception in the spring of 2017, Comets Giving Day has served as an opportunity for University students, alumni, faculty, staff and friends of UT Dallas, to raise significant gifts to support schools, departments, research, emergency funds, student organizations, programs and centers. The Jonsson School has been able to harness the power of Comets Giving Day and use it as a platform to promote the priorities of the Fearless 2020 initiative. The Jonsson School has increased giving participation each year and surpassed all other schools and centers with the most dollars raised on Comets Giving Day.

With the pandemic altering the 2020 Comets Giving Day plans in early April, our alumni, corporate partners, faculty, staff and students showed up in a big way to give back to the Jonsson School during our new date in August 2020.

#### Here are some notable gifts made on Comets Giving Day:

- Mbroh Engineering made a \$50,000 gift on Comets Giving Day
  that created the first endowed scholarship for the Diversity
  Scholars Program that would directly benefit Jonsson School
  students. A portion of this gift also went to support the
  UT Dallas chapter of the National Society of Black Engineers.
- The Association for Computing Machinery (ACM) Student
  Organization created an endowed scholarship for computer
  science students in honor of Dr. Gopal Gupta. This scholarship
  raised over \$28,000.
- The computer science faculty and staff established the Dr. Gopal Gupta Fellowship in Computer Science. This raised over \$29,000 on Comets Giving Day.

Comets Giving Day has been an opportunity for the Jonsson School, especially during the Fearless 2020 initiative, to create new scholarship and fellowship opportunities for students in need, the ability to sustain student organizations and provide the funding they need to grow, and the advancement of research that allows our faculty and staff to reach new levels of success and broaden the impact of the Jonsson School on a global scale.

# UTDesign® and EPICS

### Senior Capstone Program

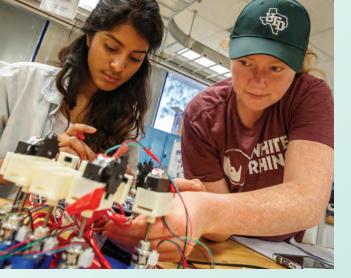
UTDesign Capstone, one of the UTDesign programs described by Dean Stephanie Adams as "the crown jewel of the Jonsson School," continues to gain renown across the United States by capturing five of its nine national championship awards earned since 2014 during the Fearless 2020 Initiative. UT Dallas, like many other universities that offer engineering and computer science degrees, requires every engineering and computer science senior to complete a team-oriented capstone project.

In addition to providing a world-class learning experience in a 40,000-square-foot design studio, the number of UTDesign capstone teams soared during the initiative from 98 teams (409 students) at the start of the Fearless 2020 initiative to 214 teams (1070 students) in its final year of the initiative. This resulted in a 118% increase and a 21.5% CAGR (Compound Annual Growth Rate). From these teams, 476 were sponsored projects.

The UTDesign Capstone team of faculty and staff seeks to provide external sponsors for at least 80% of the projects, with the students applying their innovation and talents to solve real-world problems for organizations and corporations. These students learn the end-to-end hardware or software development cycle, including ideating, designing, building and testing new prototypes, manufacturing automation solutions and complete product testing systems, and so much more. A number of these students are hired by their sponsoring companies, and some projects lead to patent applications for the sponsoring companies, with the student's names prominently displayed.

Through robust strategic outreach practices, the Jonsson School added 154 new corporate and government agency sponsors to the UTDesign program during the Fearless 2020 initiative.

For a complete list of corporate and government agency sponsors, visit the Fearless 2020 website at engineering.utdallas.edu/fearless2020.



### **UTDesign EPICS**

In 2016, at the start of the Fearless 2020 initiative, EPICS (Engineering Projects in Community Service) was founded and is the first service learning design program at the Jonsson School of Engineering and Computer Science at The University of Texas at Dallas.

EPICS is an undergraduate course that connects talented and skilled engineering and computer science students with non-profit organizations. Students work on real-world projects that directly benefit non-profits both locally and globally. EPICS allows students, faculty and non-profit leaders to create lasting impact in their local community. Since its inception, EPICS has worked with about 30 nonprofits on over 40 projects supported by 600 students.

Through Giving Day, EPICS has also been able to fundraise with raising \$1,000 in 2019 and \$2,500 in 2020.

#### **Program Growth**

The first class for EPICS was offered in the spring of 2016, with 24 students working on five different projects. Since then, enrollment has increased with an average of 70 to 80 students registered per semester. In a typical semester, the EPICS program supports 15 to 18 projects and since 2016, 15 completed projects have been delivered to external partners. The most significant projects that have been delivered during the duration of the Fearless 2020 initiative have been to TexProtects, Richardson Literacy Center, Early Wheels, Richardson Animal Shelter and Trusted World.

Top External Donors for EPICS Jonsson Foundation State Farm Alliance Data

### UTDesign Startup

Through the funding of partners Naya Ventures, PlainsCapital Bank, and BioWorld, the UTDesign Startup Challenge was created in the Fall of 2017. The startup leverages experiential learning through the Jonsson School's UTDesign Senior Capstone course to help bring high-potential technology startups to life. Teams selected through an application process receive \$15,000 of engineering services over one or two semesters, a technical mentor, business coaches, and \$5,000 cash to grow the business. The program will culminate at the UTDesign Capstone Demo Day where each participating startup will present their working prototype.

#### UTDesign Startup Challenge Winners

#### Fall 2019

Fluid Impulse Eddie Bates, BS Mechanical Engineering; Jennifer Kerner, BS Mechanical Engineering; Justin Gaumer, BS Mechanical Engineering; Samantah Aceves, BS Mechnical Engineering; Thomas Ledford, BS Mechanical Engineering

**BeYOUty Tech** Nicole Faraji, MBA'21

#### Fall 2018

**ThreadAl** Pablo Peillard, BS'20 in Computer Science

#### Fall 2017

Simple Biomedical Citali Barron, BS'18 in Computer Science; Emily Huynh, BS'18 in Computer Science; Alfin Shibu, BS'18 in Computer Science; Paul Parrot, Josh Park, BS Computer Science



Thread AI, winners in Fall 2018, recieving check made possible by sponsors, BioWorld.



Simple Biomedical, winners in Fall 2017, recieving a check from Naya Ventures.

## Innovation and Entrepreneurship

UT Dallas serves as a hub for innovation and entrepreneurship across the University and within the North Texas community. Through programs, student organizations, housing a Blackstone Launch pad, a unique partnership with Capital Factory, and a startup competition, UT Dallas equips its students, alumni, faculty and staff to unleash their potential by being innovative thinkers and harnessing their entrepreneurial spirit into businesses that will help better the world.

### Big Idea Competition

The Big Idea Competition at UT Dallas is one of the most celebrated nights of entrepreneurship in North Texas and recognizes the entrepreneurial progress of UT Dallas students, faculty and alumni. This event hosted annually by UT Dallas Institute for Innovation and Entrepreneurship, brings the best undergraduate and graduate students together from all disciplines, alongside top research faculty and alumni to pitch the most innovative startups and ideas in front of their peers and a panel of esteemed judges for cash and scholarship prizes.

The Jonsson School is interwoven in the Big Idea Competition every year through students and faculty competing for awards or from sponsors and alumni supporting the competition.

# Big Idea Competition Winners (Jonsson School Student and Alumni Teams)

#### Fall 2019

• First Place **Resumé Puppy** Anish Hedge, Computer Science Grad Student

#### Fall 2018

- First Place **SurviVR** Brian Hoang, BS'19 in Computer Science; Lewis Zhang, BA'16 in ATEC; Marwan Kodeih, BS'18 in Computer Science
- Second Place Cyto PDMS Kevin Lam, PhD'19 Biomedical Engineering
- Best Undergraduate Pitch **ThreadAl** Pablo Peillard, BS'20 in Computer Science
- Biggest Social Impact SeeBoost Russ Lemberg, BS'12 in Electrical and Electronics

#### Fall 2017

- Third Place Alta Air Jason Tran, BS'20 in Finance and Economics, Konan Mirza, BS'19 in Finance and Economics, Yosias Kassaye, BS'19 in Electrical Engineering
- Biggest Social Impact Skyven
   Technologies Arun Gupta, PhD'12 in
   Electrical and Electronics Engineering
- Best Undergraduate Pitch Alta Air Jason Tran, BS'20 in Finance and Economics, Konan Mirza, BS'19 in Finance and Economics, Yosias Kassaye, BS'19 in Electrical Engineering

For UTDesign Startup Challenge winners, see UTDesign Startup, under UTDesign® and EPICS.



### CerSci Therapeutics: A Success Story for the Jonsson School and UT Dallas

Through innovative collaboration, UT Dallas provided the opportunity for networking and commercialization expertise to support an entrepreneurial student (now alumnus) and two UT Dallas faculty members to create a biotechnology company that has broken barriers within the pharmaceutical world.

Lucas Rodriguez, MS'14, PhD'16, a recent alum of the Department of Bioengineering at the Jonsson School of Engineering and Computer Science, has proven to be the catalyst to opening doors in the world of biotechnology. While working towards his doctorate degree, Dr. Rodriguez and two UT Dallas faculty members, Dr. Ted Price, BS'97 and Dr. Gregory Dussor, banded together and launched a successful biotech startup, CerSci Therapeutics. The company recently sold to a large pharmaceutical company for an astounding \$52.5 million.

Founded in 2015, CerSci Therapeutics was created to develop therapies for chronic and acute pain relief without the addictive properties found in opioids. With this type of development, CerSci Therapeutics could combat the opioid crisis.

When Dr. Rodriguez, Dr. Price and Dr. Dussor were in the beginning stages of CerSci, the trio utilized the Venture Development Center – an incubator space for companies that have their foundation in the University. From the beginning, the Office of Research and Office of Technology Commercialization guided the newly founded company. With the success of CerSci and the entrepreneurial spirit of Dr. Rodriguez, he was invited to be the speaker at the kickoff of the Blackstone LaunchPad in 2017. Blackstone serves as a hub for students at UT Dallas to succeed in entrepreneurship and utilize their innovation within their careers. Dr. Lucas Rodriguez, Dr. Ted Price and Dr. Gregory Dussor are the perfect example of how their business acumen, leadership and entrepreneurial spirit carved a path for groundbreaking research and provided solutions for people and the global economy. The three leveraged UT Dallas innovation programs to develop biotechnology solutions at the global scale.



#### 2019 Women in Tech Host Committee

Lisa Atherton, Textron Systems

**Shireen Bahadur**, Student, UT Dallas

**Seema Deshpande**, Texas Instruments

Raja Dodalla

Monica Egert-Smith, Communities Foundation of Texas

Susan Fojtasek, MBA'06, Improving

Neel Gonuguntla, US India Chamber of Commerce DFW

**Dr. Rashaunda Henderson**, Faculty, UT Dallas

Annette Jackson-Anderson, Charles Schwab

**Alicia Morgan**, Program Development Consultant

Katie Pier, BS'09, MS'10, Texas Instruments

**Dr. Shalini Prasad**, Dept. Head, Bioengineering, UT Dallas

Terri Scannell, Vizient, Inc.

Nicole Small, LH Holdings, Inc.

Hasini Sundaresan, Student, UT Dallas

**Alisa Thomas**, Student, UT Dallas

**Dr. Amy Walker**, Associate Dean of Undergraduate Studies, Jonsson School. UT Dallas

Aries Webb-Williams, MBA'08, SoftwareONE

### **Events**

### Women in Tech

Within the last several years the Erik Jonsson School of Engineering and Computer Science has experienced profound and significant growth, becoming an energetic, top-tier school that embodies the ideals of innovation and collaboration. Advancing solutions to society's critical challenges requires innovators, problem solvers and entrepreneurs from diverse backgrounds.

Providing opportunities for women in technology is a key priority for the Jonsson School. From the launch of the Fearless 2020 initiative to the close of this initiative, this tenet holds true.

In the Spring of 2019, the Jonsson School of Engineering and Computer Science at The University of Texas at Dallas and the Communities Foundation of Texas hosted the inaugural "Women in Tech: Paths to Leadership" event. This event featured a panel discussion by female executives and entrepreneurs in tech roles at leading companies.

#### Panelists:

- Maya Leibman, Executive Vice President and Chief Information Officer, American Airlines
- Helen Malick, Founder and CEO, Figable
- Ane Sacks, Senior Vice President & Chief Customer Officer, Analog Devices
- Dalia Soliman-Powers, Sr. Vice President and CTO of Platform Innovation and Engineering, Humana

Behind this powerhouse of women was a host committee (listed in left sidebar) that provided a strategic outlook for this event as well as how to utilize this event for maximum impact in the community.

This event was a unique opportunity for North Texas middle school, high school and UT Dallas students to learn how these outstanding women in tech achieved success in their chosen fields. One of the Jonsson School's top priorities remains steadfast in enabling greater access to higher education for underrepresented and non-traditional students. Women in Tech successfully magnified women in the fields of engineering, technology and computer science, and provided hope to students that have been traditionally marginalized in our society. The Jonsson School will continue to grow this success and host Women in Tech in the future with the goal to grow diversity and inclusion in the world of STEM education.



Panelists and Moderator of Women in Tech Event, L to R: Moderator, Sejal Desai; Panelist, Maya Leibman; Panelist, Helen Malick; Panelist, Ane Sacks; Panelist, Dalia Soliman

### In Memoriam



### Philip Jonsson

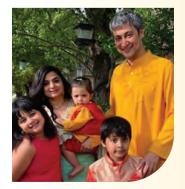
Philip Jonsson, the son of UT Dallas co-founder J. Erik Jonsson and honorary chair of the Jonsson School Executive Council, passed away on April 22, 2020 at the age of 95.

Philip and his wife, Diane, established the Jonsson Family Graduate Fellowship in Bioengineering in the Jonsson School as well as generously supporting the Center for BrainHealth since 2011. Their leadership as honorary chairs of the Jonsson School's Executive Council during the Fearless 2020 initiative resulted in record giving to the Jonsson School. At the 2019 UT Dallas Awards Gala, Jonsson's contributions to UT Dallas were recognized and he was awarded the Gifford K. Johnson Community Service Award, an award given to non-graduates of UT Dallas who have taken up the University's cause with exceptional support, dedication, passion and enthusiasm for UT Dallas and its vision of becoming a leading national research university. Jonsson was an avid supporter of UTDesign EPICS program and supported research, fellowships and other student learning initiatives. Jonsson also supported faculty research and provided a significant gift to Dr. Robert Gregg's development of robotic prosthetics that will enable mobility and improve the quality of life for persons with disabilities.

Jonsson is survived by his wife Diane and his daughter Suzanne. Philip and Diane Jonsson were ardent supporters of the University and the Jonsson School of Engineering and Computer Science. Jonsson was dedicated to continuing his father's legacy and keeping the mission of the Jonsson School alive: furthering advancement of research, creating a quality educational experience for our students, and to recruit top-tier faculty and staff to aid in the growth of his father's school.

### Rahul Kukreti, BS'01, MS'02

The Jonsson School pays honors to Rahul Kukreti who was one of the original founders of the Jonsson School Executive Council. Kukreti's dedication and passion for UT Dallas and the Department of Computer Science was insurmountable. As a determined young alumnus, Kukreti with three other UT Dallas computer science alumni, founded mRoads, an HR IT company located in Plano. Rahul also championed the first scholarship designated to support undergraduate computer science students. We are forever grateful for his time on the council and want to recognize and honor his life and commitment to UT Dallas. We miss him dearly, but are constantly thankful for his direction as an alumnus of UT Dallas and a member of the Jonsson School Executive Council.





# A Message from the Dean

Engineering is at the heart of everything. Through the process of engineering, people collaborate to solve the biggest problems we face in society. Our students and faculty members in the Erik Jonsson School of Engineering and Computer Science (Jonsson School) are learning the principles, creating the prototypes and conducting the research that leads to innovations that will profoundly impact our lives for generations.

Through the Fearless 2020 initiative, the contributions supporters made over four years led to transformational growth within the Jonsson School. The impact made during this initiative allowed the school to achieve groundbreaking research, provide opportunities for students within the fields of technology and engineering, and allowed the Jonsson School to provide substantial investment in our faculty and staff.

The Jonsson School has succeeded in this initiative because of our wide network of support. I am deeply thankful for:

- The Jonsson School Executive Council who generously supported this initiative while providing counsel to the Jonsson School Development team;
- Our corporate and community partners within our North Texas and global communities who have invested in our students, faculty and research endeavors;
- The Jonsson School alumni network that has made a commitment to elevate the next generation of Fearless Engineers through scholarships, fellowships, mentorship experiences and other opportunities students will need to succeed beyond graduation; and finally
- Our trusted faculty and staff, who go above and beyond to connect students, alumni, and corporate partners to further the mission and vision of the Jonsson School and impact the fields of engineering and computer science.

As we close the Fearless 2020 chapter, the Jonsson School is excited to graduate to the next stage of fostering impact through **New Dimensions: The Campaign for UT Dallas.** I invite you to continue to partner with us as we embark on an ambitious \$75 million campaign that will enable us to continue to make strides in innovative research, nurture students into fearless and compassionate leaders for our global community, and invest in faculty to shape the minds of our future.

Thank you for helping expand the Jonsson School legacy through Fearless 2020; we look forward to partnering with you during the New Dimensions campaign.

Sincerely,

#### Stephanie G. Adams, Ph.D. F.ASEE

Dean and Lars Magnus Ericsson Chair Erik Jonsson School of Engineering and Computer Science The University of Texas at Dallas Immediate Past President, American Society for Engineering Education

# A Special Thank You to Dr. Poras T. Balsara

Dr. Balsara served as interim dean of the Jonsson School from September 2017 to August 2019 and was integral in the beginning stages of the Fearless 2020 Initiative. His strategic insight helped kick off the successful initiative and led to significant impact for students, research, and for faculty and staff within the Jonsson School of Engineering and Computer Science. Balsara's forward thinking helped implement dramatic advancements for current and future students that in turn enabled the Jonsson School to provide exceptional talent on a global scale within the fields of engineering and technology. As Balsara shifted back into his original role as Associate Dean for Academic Affairs for the Jonsson School, his transition of leadership to Dean Adams in August of 2019 was seamless. When the initiative closed in August 2020, it had exceeded its original goal of \$20 million with a total of \$36.3 million raised. The leadership from both Balsara and Adams during the Fearless 2020 Initiative has transformed the Jonsson School and will continue to impact students within engineering and computer science for years to come.







THE UNIVERSITY OF TEXAS AT DALLAS