

## CIE/USA-DFW ANNUAL CONVENTION

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**Technology Fusion** 

# BREAKTHROUGH TECHNOLOGIES FOR A SUSTAINABLE FUTURE

Chinese Institute of Engineers/USA Dallas - Fort Worth Chapter 美洲中國工程師學會 達福分會

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## Letter from the President

On behalf of CIE/USA-DFW, I warmly welcome you to the 2022 Annual Convention. It has been 1,135 days since our last in-person convention, due to the COVID-19 pandemic. In this time, we had held two annual conventions and many other of our chapter's programs virtually. With the unceasing support of our dedicated volunteers, these events were executed flawlessly. I thank our last two presidents, Drs. Lun Tsuei and Tiger Zhou, for guiding us through these unchartered waters masterfully, all the while without losing sight of our mission.

Some ten months ago, while preparing for my term as the chapter's president, one of my first tasks was to decide on the Annual Convention theme with the help of the Board of Directors and Advisors. After much deliberation, we enthusiastically agreed on: "Technology Fusion - Breakthrough Technologies for a Sustainable Future." The key words – Sustainable Future – resonate strongly with me.

With my urging, the 2022 officer team and event chairs worked diligently and creatively to encompass "Sustainable Future" in many events, from the Student Engineering and Creativity Convention in April to the MathComp/MathFun (MCMF) and Parenting Seminar in June. You can read more about these and many other CIE events in the following pages. As a research engineer, it is nigh impossible for me to read a journal or attend a technical conference without running into the word Sustainability. There is a good reason for that, as the world we call home – Planet Earth – is fraught with unprecedented challenges. Climate changes, pandemic, energy and water shortage are but a few that we hear about in the nightly news, read time and again on the internet, and of course experience to varying degree of personal impact. At times, I can't help but feel a sense of helplessness, as the scale of these challenges is truly enormous.

Against this backdrop, I began working with the 2022 officer team and event chairs to prepare for the many events that we planned to deliver for the communities we serve. I feel fortunate and privileged to partner with the team as we transitioned out of the pandemic. In early Summer, we held the MCMF event – the first in-person program in over two-and-a-half years! To see the joy, smile, and pride of the young students up close was priceless for me and the team.

As I look back in the past 10 months, I truly hope that we have delivered something positive and impactful to the people we have served. Personally, I have gained much more than I gave. Hopefulness of a brighter future ushers away that vague sense of helplessness, because I have experienced firsthand the teamwork and selflessness of our volunteers, the exuberance of the young students we have served, the confidence and audacious boldness to improve the world of our YAA recipients, and the wisdom of the symposium speakers to apply science and technology to tackle the Sustainability challenge head on.

I am grateful to our sponsors for their trust and support, to our volunteers for their dedication, and to the board and advisors for their guidance and patience. I am also indebted to the 2022 officers and event chairs for their partnership, support, and friendship along the way.

Finally, we would have no annual convention without the participation of attendees, so I thank you for joining us today. I hope you find the convention's program both informative and enjoyable.

Best wishes to your continued success!

Yours Sincerely,

3/24

Chris Koh, Ph.D. 2022 President CIE/USA-DFW Chapter

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# 2022 Annual Convention

## SEPTEMBER 24<sup>TH</sup> AGENDA

### **Annual Convention**

10:00 am – 12:00 pm	Technical Executive Forum (by invitation)
12:00 pm – 1:00 pm	Symposium Registration
1:00 pm – 5:00 pm	Technology Symposium
	Keynote Speeches
	Professional symposium sessions (in parallel)
	- Track 1: Resource Sustainability - Track 2: Infrastructure Sustainability - Leadership and Career Development Seminar - Exhibitions
5:30 pm – 6:30 pm	VIP Reception (by invitation)
6:30 pm – 9:00 pm	Dinner Banquet
	- Performances - Keynote Speech - Special Recognitions

- Young Achiever Award

### **Technical Executive Forum**

10:00 am – 10:05 am	Opening Remarks
10:05 am – 10:30 am	Panel Introduction
	Dr. Wenhua Di, Sr. Economist & Executive Director of Research Data Center, Federal Reserve Bank of Dallas
	David Lu, Vice President, Network Systems AT&T Technology Services, AT&T (2017 AAEOY Awardee)
	Dr. Duojia Pan, Professor & Chair of Department of Physiology, University of Texas Southwestern Medical Center, Investigator of Howard Hughes Medical Institute
	Dr. Karthik Vasanth, VP and General Manager for DCC Business Unit, Texas Instruments (2022 AAEOY Awardee)
10:30 am – 11:30 am	Panel Discussion
11:30 am – 12:00 pm	Q&A
12:00 pm – 12:10 pm	Closing
12:10 pm – 1:00 pm	Networking Lunch



Event Chair Will Jordan



Executive Forum Host Amanda Pederson VP, Global R&D, PepsiCo

### **Professional Symposium**



**Symposium Chair** 

#### Dr. J.-C. Chiao

#### Theme: Technology Fusion: Breakthrough Technologies for a Sustainable Future

1:00 pm – 1:10 pm	<b>Opening Remarks</b> Technology Symposium Chair: Professor JC. Chiao, Southern Methodist University
1:10 pm – 2:00 pm	Keynote: PepsiCo Positive Efforts to Enable a World Where Packaging Never Becomes Waste Dr. Sridevi Narayan-Sarathy, Technical Director and Sr. Fellow, PepsiCo
2:00 pm – 2:50 pm	Keynote: Operational Sustainability: Healthcare and other Organizations Dr. Robert Hendler, Chief Medical Officer, Texas Hospital Association

Track 1: Resource Sustainability Track Chair: Dr. Nick Fang, Assoc. Professor, Department of Civil Engineering, The University of Texas at Arlington

3:00 pm – 3:30 pm	<b>CECAP:</b> Not just Another Pretty Plan on the Shelf Susan Alvarez, Assistant Director, Office of Environmental Quality & Sustainability, City of Dallas
3:30 pm – 4:00 pm	Monitoring Earth's Hazards with Satellite Radar Interferometry Dr. Zhong Lu, Professor, Department of Earth Sciences, Southern Methodist University
4:00 pm – 4:30 pm	Bridge Deicing using Shallow Geothermal Energy: How did it perform in the 2021 Winter Storm in Texas? Dr. Xinbao (Paul) Yu, Professor, Department of Civil Engineering, The University of Texas at Arlington
4:30 pm – 5:00 pm	USACE Evolution of Flood Mitigation for DFW Jerry L. Cotter, Water Resources Branch Chief, US Army Corps of Engineers

Track 2: Infrastructure Sustainability Track Chair: Dr. Mohammad Khodayar, Associate Professor, Department of Electrical and Computer Engineering, Southern Methodist University		
3:00 pm – 3:30 pm	<b>The Future of Urban Mobility: Opportunities and Challenges</b> Dr. Khaled Abdelghany, Professor, Department of Civil and Environmental Engineering, Southern Methodist University	
3:30 pm – 4:00 pm	<b>Modeling and Control of Integrated Thermal-Electric Energy Systems for Grid Resilience</b> Dr. Jie Zhang, Associate Professor, Department of Mechanical Engineering, The University of Texas at Dallas	
4:00 pm – 4:30 pm	Efficient and Grid-interactive Building Energy Systems Enabled by Modeling, Controls and Optimization Dr. Yaoyu Li, Professor, Department of Mechanical Engineering, The University of Texas at Dallas	
4:30 pm – 5:00 pm	<b>Towards Socially Sustainable and Resilient Infrastructure Projects Using a Systems Approach</b> Dr. Janille Smith-Colin, Assistant Professor, Department of Civil and Environmental Engineering, Southern Methodist University	

**Leadership and Career Development Seminar** 

Theme: Sustainable Leadership in a Fast and Ever-Changing World LCDS Chair and Moderator: Matt Tovar, Transmission Planning Manager, Oncor Electric Delivery		
3:00 pm – 3:30 pm	A Few of Life's Lessons Learned Along the Way (What I wish I had known earlier) Mark Carpenter, SVP, Oncor Electric Delivery Company	
3:30 pm – 4:00 pm	Sustainability through the Lens of Data and Analytics Gaurav Shekhar, Program Director and Assistant Professor of Instruction, The University of Texas at Dallas	
4:00 pm – 4:30 pm	Looking at Leadership through the Sustainability Perspective Sheana Chen, Vice President and General Counsel, Diodes	
4:30 pm – 5:00 pm	Panel Discussion	



SPECIAL RECOGNITION AWARD presented to

## The Science and Technology Division of the Taipei Economic and Cultural Office in Houston

For Outstanding Contribution to the 2022 CIE/USA-DFW Technology Symposium



CHINESE INSTITUTE OF ENGINEERS/USA DALLAS-FORT WORTH CHAPTER

September 24<sup>th</sup>, 2022

Tiger Zhou

Tiger Zhou Chairman

Chris Koh

Chris Koh President



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## **TECHNICAL EXECUTIVE FORUM**

"TECHNOLOGY FUSION: BREAKTHROUGH TECHNOLOGIES FOR A SUSTAINABLE FUTURE"





Amanda Pederson

VP PepsiCo



Dr. Wenhua Di

Sr. Economist Federal Reserve Bank of Dallas



Dr. Duojia Pan

Professor and Chair UT Southwestern



Dr. Lun Tsuei

Director KPS Global LLC



**PANELIS** 

Dr. Karthik Vasanth

VP and GM Texas Instruments



David Lu

VP AT&T

## FORUM MODERATOR



Dr. Mary Cooley Chair Dallas Chapter of SCORE Panelists will begin this interactive discussion by sharing their global perspective on Technology Fusion and the associated challenges, creative solutions to address these challenges, and opportunities for future collaboration. Attendees will have the opportunity to ask questions and interact with the panelists.

### PANELIST PROFILES



#### Amanda Pederson VP, Global R&D, PepsiCo



Amanda Pederson is the Vice President of Foods Processing Technology for PepsiCo Global Research & Development. She leads a team of innovative R&D engineers and scientists to advance foods technology solutions, enable digital transformation and build future capabilities for PepsiCo.

She has over 20 years of foods industry experience in product and technology innovation, and prior roles include the leadership of Frito-Lay North America R&D. Amanda earned a Bachelor of Science degree in Chemical Engineering from Texas A&M University.

Wenhua Di is a senior research economist at the Federal Reserve Bank of Dallas. Her current research interests include consumer finance, small business lending and labor. Di also serves as the executive director of the Dallas-Fort Worth Federal Statistical Research Data Center. Before she joined the Dallas Fed, Di was a visiting assistant professor at the University of Texas at Dallas. She also worked as a consultant at the World Bank. She holds a PhD in public policy with a concentration in environmental economics from Harvard University, an MS and a BS from Peking University.





Dr. Wenhua Di Sr. Economist & Executive Director at Federal Reserve Bank of Dallas

PANELIS'



Dr. DuoJia Pan Professor and Chair, Physiology Department, UT Southwestern

PANELIST Dr. Pan is Bashour Distinguished Chair of Physiology at UT Southwestern Medical Center, and an Investigator of the Howard Hughes Medical Institute. After receiving a Bachelor's degree in Biochemistry from Peking University, he pursued PhD studies at UCLA and postdoctoral training at UC Berkeley. As a faculty member at UT Southwestern Medical Center (1998-2004 and 2016-present) and Johns Hopkins Medical School (2004-2016), Dr. Pan investigates the molecular mechanisms of growth control and tissue homeostasis. He is best known for elucidating the Hippo signaling pathway, an evolutionarily conserved signaling pathway that regulates tissue growth in development, tumorigenesis and regeneration.

Karthik Vasanth is vice president and general manager for Texas Instruments' Data Converters and Clocks business unit in the company's Analog Signal Chain organization. Under his leadership, his team develops innovative products and solutions for industrial, automotive, communication infrastructure, aerospace and defense, medical imaging and healthcare markets across the globe.



**Karthik** Vasanth VP and General Manager for DCC Business Unit, Texas Instruments

After beginning his career in 1995 as an engineer in silicon technology development, Karthik has contributed to many technical innovations in device modeling, high-performance radio frequency and medical integrated circuits. He has authored more than 30 papers and developed several patented technologies. As a business leader he has grown several established and new technologies across several industries.

Karthik earned a bachelor's degree in electronics and communication engineering from the Indian Institute of Technology Chennai (Madras) and master's and doctoral degrees in electrical engineering from Princeton University. He serves on the electrical engineering advisory boards at Princeton University and Southern Methodist University.

Karthik loves to play cricket and travel with his family on Disney Vacations.



PANELIST

David Lu VP, Network Systems, AT&T Technology Services, AT&T

David Lu currently leads a global team of more than 2,500 people responsible for the architecture, development and engineering of AT&T's next generation SDN (Software Defined Network) automation platform and open source (Linux Foundation ONAP) enabling AT&T's network virtualization and target network systems transformation including PaaS & SaaS, network policy control & orchestration, network inventory, network surveillance, network diagnostics, providing hyper-automation and AI/ML driven data analytics for AT&T 5G and Fiber networks.

Since joining AT&T Bell Labs in 1987, David has served in various leadership positions at AT&T. He has led numerous automation initiatives in AT&T that resulted in multibillion-dollar savings over the past 20 years and won AT&T's CIO 100 Award in 2010. David holds 57 patents and received numerous industry awards including the 2015 Chairman's Award from IEEE Communication Society for Network and Systems Quality and Reliability and 2017 CIE AAEOY (Asian America Engineer of Year) Award. As a strong community leader, David currently serves on the DFW-CIE board and as sponsor and adviser for a number of STEM and Asian American organizations.

Mary Cooley is an active volunteer with a special interest in technology and entrepreneurship. Dr. Cooley chairs the Dallas Chapter of SCORE, an organization dedicated to providing free, confidential mentoring and low-cost workshops to small business owners and entrepreneurs. She supports the Chinese Institute of Engineering's DFW chapter as a member of the Board of Directors and as moderator of the annual Technical Executive Forum. In addition, she was the Chair of the Dallas Chapter of IEEE for 3 years.

Dr. Cooley's professional career has focused on leadership roles in high tech, including computer development, semiconductor design and medical devices. Until recently, she served as the Chief Operating Officer of Dynofit, a medical device start-up. Other roles have included engineering and marketing leadership at Hewlett Packard, Xtendwave, Convex Computer and Texas Instruments. While at HP, she led the architecture and development of multiple generations of Superdome, the largest computer developed by the company. 10





### Science and Technology Division, Taipei Economic & Cultural Office in Here

The Science and Technology Division of the Taipei Economic and Cultural Office in Houston is the representative office of the National Science and Technology Council (NSTC) of Taiwan in the central U.S. We facilitate collaboration in research, development and innovation between Taiwan and the central U.S.

Mission:

- 1. Promote collaboration in science and technology between Taiwan and the central U.S.
- 2. Help bidirectional exchanges, recruitment, and visits of young talent in science and technology fields between Taiwan and the central U.S.
- 3. Help to arrange bidirectional visits of experts in science and technology between Taiwan and the central U.S.
- 4. Encourage investments to Science Parks in Taiwan.
- 5. Help talent in the central U.S. organize science and technology conferences based on the future development of science and technology in Taiwan.
- 6. Help to promote programs supported by NSTC to recruit talent to Taiwan and international collaboration.
- 7. Help to promote science and technology developments in Taiwan to the central U.S.

Service Area:

Arkansas, Illinois, Iowa, Louisiana, Minnesota, Mississippi, Missouri, Oklahoma, Texas, and Wisconsin

Contact Information: Science and Technology Division Taipei Economic and Cultural Office in Houston 11 Greenway Plaza, Suite 2018, Houston, TX 77046 Tel: (713)840-3855 E-mail: houston@nstc.gov.tw Website: https://www.nstc.gov.tw/houston/en

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## TECHNICAL SYMPOSIUM

J.-C. Chiao is the Mary and Richard Templeton Centennial Chair professor, Electrical and Computer Engineering, Southern Methodist University. He is Fellow of IET, SPIE, IEEE and AIMBE. He was the Founding Editor-in-Chief for IEEE Journal of Electromagnetics, RF, and Microwaves in Medicine and Biology, and Chair of 2022 IEEE Sensors conference. He is the recipient of O'Donnell Award in Engineering by The Academy of Medicine, Engineering and Science of Texas; Lockheed Martin Aeronautics Excellence in Engineering Teaching Award; Tech Titans Technology Innovator Award; Heroes of Healthcare Research in Medicine award; IEEE Region-5 Outstanding Educator and Excellent Performance awards.

CHAIR Dr. J.-C. Chiao Professor, Department of Electrical and Computer Engineering, SMU





#### PEPSICO POSITIVE EFFORTS TO ENABLE A WORLD WHERE PACKAGING NEVER BECOMES WASTE

Dr. Sridevi Narayan-Sarathy

Technical Director and Sr. Fellow, PepsiCo

Sri Narayan-Sarathy is Technical Director of Sustainable Packaging and Senior Research Fellow at PepsiCo. Sri received her M.Sc. in Chemistry and M.Tech. in Polymer Science & Technology from Indian Institutes of Chennai and Delhi respectively. She got her Ph.D. in Polymer Science & Engineering from the University of Massachusetts at Amherst. Prior to joining PepsiCo in 2010, Sri was Technology Manager/Principal Scientist at Ashland Performance Materials. Sri's research interests are in the areas of Materials Science and Chemistry. At PepsiCo, she is leveraging her extensive experience with different polymer chemistries to identify and develop bio-based materials for sustainable flexible packaging with good end of life. She has several patents and publications to her credit. Sri also has an adjunct faculty appointment in the Department of Grain Sciences at Kansas State University and sits on the board of Biodegradable Products Institute (BPI).

#### ABSTRACT

Environmental sustainability is one of the pillars for our PepsiCo positive agenda and packaging is a significant component of our Carbon footprint as well as single use plastics use. PepsiCo is taking a 3-pronged approach to meeting our sustainable packaging goals that involves reducing the amount of packaging, reinventing packaging materials and scaling innovative packaging solutions as well as driving an economy for recycled materials and supporting recycling to keep material in the circular economy. The presentation will focus on the reinvent pillar especially on the foods packaging side. Flexible snacks packaging has a challenge from an end -of- life point of view as the current multi-material structures are not recycle friendly in existing infrastructure. This leads to significant littering, marine pollution and other problems that have adverse effects on our business. We have developed a multi-pronged approach to address this problem globally by developing materials which are bio-based and can be recycled or easily composted. This is based on a deep materials science understanding of novel materials, development with the right partners, solving engineering challenges of conversion and building supply chain that is committed to leaving a more sustainable world for our future generations.



SPECIAL RECOGNITION AWARD presented to

## Dr. Sridevi Narayan-Sarathy

Technical Director and Sr. Fellow PepsiCo

For

Visionary Leadership in Sustainable Packaging Research



CHINESE INSTITUTE OF ENGINEERS/USA DALLAS-FORT WORTH CHAPTER

September 24<sup>th</sup>, 2022

Tiger Zhou

Tiger Zhou Chairman

Chris Koh

Chris Koh President



#### OPERATIONAL SUSTAINABILITY: HEALTHCARE AND OTHER ORGANIZATIONS

**Robert S. Hendler, M.D.** Chief Medical Officer, Texas Hospital Association

Dr. Hendler receives his B.S. in Biology, Boston College, and M.D. at the University of Texas Medical Branch, Galveston. He was trained and is board certified in Internal Medicine and Gastroenterology at Parkland Hospital and the University of Texas Southwestern Medical School. He was in private practice for twenty years in private practice. He is a founding member of Digestive Health Associates of Texas - one of the largest specialty groups in the United States. Dr. Hendler served as a Vice President in Tenet Healthcare, a Fortune 500 company, and worked in all areas of the corporation for fifteen years. In his role in Quality Improvement for Tenet, in 1999 he visited and worked with 100 hospitals in one year in creating the first set of hospital based quality core measures. He has served as Chief Quality and Safety Officer during the first three years of the Parkland Health and Hospital System Corporate Integrity Agreement and improvement process. In his fourth year at Parkland, he held the position of Associate Chief Medical Officer and Senior Vice President of Professional and Academic Affairs at the Parkland Hospital and Health System. During this three years Parkland improved from a near Federal closure of the hospital to being recognized by Leapfrog Group as a top 10% hospital for quality and safety. He is a former Clinical Professor of Medicine at the University of Texas Southwestern Medical School. He is currently the Chief Medical Officer at the Texas Hospital Association.

#### ABSTRACT

In this talk, first, a general definition of sustainability will be defined with the question in mind "why sustainability is actually variably defined despite extensive studies?" Then a review of hospital safety as an example of poorly sustainable action will be discussed. A pragmatic approach to sustainability will be given with the following outline: (a) Brief discussion of highly reliable organizations; (b) a useful theory of high reliability by Roberts; (c) a hierarchy of actions to achieve sustainable changes; (d) a closer look at naval aviation and carriers as a sociological similar model to healthcare; (e) a comparison of commercial aviation, naval aviation, and healthcare; and (f) the Parkland Hospital experience and results suggesting improvements to healthcare reliability and sustainability. Then conclusions for the question "What healthcare needs to change to achieve sustainability in quality and safety" will be discussed.



SPECIAL RECOGNITION AWARD presented to

## Dr. Robert S. Hendler

Chief Medical Officer Texas Hospital Association

For

Visionary Leadership in Innovative Healthcare Management



CHINESE INSTITUTE OF ENGINEERS/USA DALLAS-FORT WORTH CHAPTER

September 24<sup>th</sup>, 2022

Tiger Zhou

Tiger Zhou Chairman

Chris Koh

Chris Koh President

## FALL SYMPOSIUM Resource Sustainability Track



#### CHAIR Dr. Nick Fang

Assoc. Professor, Department of Civil Engineering, The University of Texas at Arlington



#### Susan Alvarez

Assistant Director, Office of Environmental Quality & Sustainability, City of Dallas



#### **Dr. Zhong Lu** Professor, Department of Earth Sciences, Southern Methodist University



#### Dr. Xinbao (Paul) Yu

Professor Department of Civil Engineering, The University of Texas at Arlington Dr. Nick Z. Fang is the Robert S. Gooch Faculty Fellow in Civil Engineering and leads the Fang Research Group at the University of Texas at Arlington (UTA). He obtained his Ph.D. degree in Civil and Environmental Engineering at Rice University in 2008. He is a founding researcher at the Severe Storm Prediction, Education, and Evacuation from Disasters (SSPEED) Center. He is also the associate chair of the academic council for the Interagency Flood Risk Management (InFRM) team consisting of USACE, USGS, NWS, and FEMA. He actively performs research in the areas of urban hydrology, radar hydrology, large scale hydrologic modeling, radar-based flood warning systems, water resources planning and management, and disaster (hurricanes, floods, and droughts) mitigation for many federal and state agencies like USACE, NSF, NOAA, USDA, NASA, TXGLO, TXDOT, TWDB, TRA, etc.

#### **CECAP: Not Just Another Pretty Plan on the Shelf**

With over 40 years of broad practical experience in civil and environmental engineering, Ms. Alvarez serves as the Assistant Director of the City of Dallas Office of Environmental Quality & Sustainability. She has a Bachelor of Science in Civil Engineering, with a minor in geology from Rice University, and postgraduate work in water resources. She is a Registered Professional Engineer in Texas and 5 other states, and is a Certified Floodplain Manager, and Master Naturalist in Texas. She serves on the 5th National Climate Assessment, Southern Great Plains Author Team and is working to implement climate action in Dallas.

#### Abstract

Dallas has a history of developing graphics-focused plans that once adopted, are rendered to a fate of sitting on a shelf rather than being implemented. In 2020, the City of Dallas unanimously adopted the Comprehensive Environmental & Climate Action Plan(CECAP) to be consistent with Mayor Rawlings' original pledge to the US Climate Mayors to meet the goals of the 2016 Paris Climate Agreement. The CECAP was developed to reduce our emissions to net zero on the science-based targets, with goals, targets, and actions based on input from over 250 community meetings. The Comprehensive Environmental & Climate Action Plan, includes eight focus areas, with 97 actions to implement emissions reduction, adaptation measures to help our community and our infrastructure adjust to a future climate scenario, and cross cutting measures to improve local environmental quality. Ms. Alvarez will provide a summary of the implementation status for this wide-reaching plan.

#### Monitoring Earth's Hazards with Satellite Radar Interferometry

Dr. Zhong Lu is the Shuler-Foscue chair professor of geophysics at Department of Earth Sciences, Southern Methodist University, Dallas, Texas, USA. His research interests include technique developments of interferometric synthetic aperture radar (InSAR) processing and their applications to the study of natural and human-induced geohazards. Dr. Lu has published 1 book, 50 lead-authored and 200 co-authored peerreviewed articles and book chapters. Dr. Lu is a member of science teams of NASA's NISAR and VenusSAR satellite missions.

#### Abstract

Satellite radar provides an all-weather, day-and-night imaging capability for monitoring Earth's landscape changes. Through interferometric synthetic aperture radar (InSAR) technology, satellite radar images can be used to measure ground surface movements associated with various Earth's hazards at an unprecedented spatial resolution. This talk introduces the principles of InSAR imaging and showcases the applications of InSAR for characterizing Earth's hazards, including i) imaging volcanic deformation and understanding magma plumbing systems over the Aleutian volcanic arc, ii) mapping and characterizing slow-moving landslides over the U.S. west coast, and iii) detecting anthropogenic geohazards and unveiling their causes over the U.S. Gulf coast.

## Bridge Deicing using Shallow Geothermal Energy: How did it perform in the 2021 Winter Storm in Texas?

Dr. Xinbao Yu is a Professor of Geotechnical Engineering in the Department of Civil Engineering at the University of Texas at Arlington (UTA). He received his M.S. in Civil Engineering in 2005 from Clarkson University and his Ph.D. in Civil Engineering in 2009 from Case Western Reserve University. Before joining UTA, Dr. Yu worked as a research associate at Louisiana Transportation Research Center (LTRC). Dr. Yu's research interests include geothermal energy applications, deep foundations, bridge scour, expansive soils, and Time-Domain Reflectometry (TDR) soil sensors. Dr. Yu's research sponsors include NSF, CALTRANS, TXDOT, ODOT, and private industries. Dr. Yu has published more than 50 peer-reviewed journal papers. Dr. Yu is a member of the Geo-Institute Technical Committee on unsaturated soils and Scour and Erosion. Dr. Yu received Excellence in Research Award in 2021 from the College of Engineering at UTA.

#### Abstract

Bridge deicing is critical to ensure roadway safety, mobility, and productivity. Chemical deicers are the commonly used effective method with adverse environmental impacts. As a green alternative, hydronically heated bridges using geothermal energy are a promising technology, relying on embedded hydronic loops for heating, limiting their use in new bridges. A new geothermal heated bridge deck with attached hydronic loops was developed and constructed on a mock-up bridge in Texas with the targeted application on existing bridges. A 435-ft. vertical single U-tube ground heat exchanger was installed to provide the heat energy needed to deice the bridge. The performance of the mock-up geothermal bridge deck was investigated through winter deicing and summer recharging tests. In particular, the geothermal bridge was tested during the major February 2021 winter storm in Texas. The developed new geothermal bridge deicing system is effective for deicing existing bridges.

#### **USACE Evolution of Flood Mitigation for DFW**

Jerry Cotter is the Chief of Water Resources for the Fort Worth District, U.S. Army Corps of Engineers, managing 25 multi-purpose reservoirs, and conducting hydrologic investigations for watershed across Texas. Jerry chairs the USACE organization of Water Management Chiefs and serves on the USACE National Water Management Advisory Group. In 2014, Jerry worked with FEMA, USGS, and NWS to establish the Interagency Flood Risk Management Team (InFRM) for the Texas region. This team works collaboratively on flood risk related initiatives like NOAA Atlas 14.

#### Abstract

From the period 1950-1990, USACE constructed 8 multi-purpose reservoirs that provide flood mitigation, water supply, hydropower, environmental and socio-economic benefits to the DFW region. To date, the multi-purpose reservoirs have provided billions of dollars in flood damage reduction benefits. The reservoirs also supply over 50% of the water supply for the area. USACE continues to engage with state and local officials to support the development of both flood mitigation projects and policies that increase community resiliency. USACE has long supported the North Central Texas Council of Government's Common Vision program that limits the impact of growth and development on the main Trinity River Corridor. Most recently, in addition to a City of Dallas levee improvement project, and the Central City project in Fort Worth, USACE is supporting the North Central Texas Council of Government Board, the General Land Office and TXDOT on the Transportation Stormwater Integration (TSI) project which will develop storm water infrastructure planning data for the western half of the DFW region.

## FALL SYMPOSIUM Infrastructure Sustainability Track



#### CHAIR Dr. Mohammad Khodayar

Associate Professor, Deparment of Electrical and Computer Engineering, Southern Methodist University



#### Dr. Khaled Abdelghany

Professor, Department of Civil and Environmental Engineering, Southern Methodist University Mohammad E. Khodayar received the B.Sc. and M.Sc. degrees in electrical engineering from Amirkabir University of Technology (Tehran Polytechnic) and Sharif University of Technology, respectively; and the Ph.D. degree in electrical engineering from Illinois Institute of Technology, Chicago, IL, USA, in 2012. He was a Senior Research Associate in the Robert W. Galvin Center for Electricity Innovation at Illinois Institute of Technology. He is currently an Associate Professor with the Department of Electrical and Computer Engineering, Southern Methodist University, Dallas, TX, USA. He served on the editorial boards of the IEEE Transactions on Sustainable Energy, IEEE Transactions on Smart Grid, IEEE Access, and IEEE power Engineering Letters. He is an associate editor of the IEEE Transactions on Vehicular Technology. His research interests include power system operation and planning, transportation electrification, and applications of machine learning to power systems.

#### The Future of Urban Mobility: Opportunities and Challenges

Dr. Khaled Abdelghany is a Professor at the Department of Civil and Environmental Engineering (CEE) and a Fellow at the Stephanie and Hunter Hunt Institute for Engineering and Humanity of Southern Methodist University. He received his Ph.D. from the University of Texas at Austin in 2001. From 2001 to 2004, he worked as an operations research analyst at United Airlines' R&D in Chicago. Dr. Abdelghany's expertise covers the intersections of transportation infrastructure systems, emerging technology, and advanced analytics. His research has been supported by the National Science Foundation, U.S. Department of Transportation, U.S. Department of Energy (ARPA-E), Department of Commerce (NIST), and several consulting firms. Dr. Abdelghany co-authored two books on modeling applications in the airline industry, several book chapter, and numerous peer-reviewed journal and conference articles.

#### Abstract

Traffic congestion costs commuters billions of dollars every year. With the limited ability to expand the capacity of the highways infrastructure, there are increasing calls to revamp urban mobility through exploring new concepts and technologies. This talk covers emerging paradigms and solutions shaping the future of urban mobility, and discusses their economic and social impacts.



#### Jerry Cotter

US Army Corps of Engineers, Water Resource Branch Chief





Associate Professor, Department of Mechanical Engineering, The University of Texas at Dallas

Dr. Yaoyu Li

Professor,

Department

of Mechanical

The University of Texas at Dallas

Engineering,

#### Abstract

**Grid Resilience** 

The power and energy system has been undergoing a dramatic transformation because of the increasing penetrations of variable renewable energy resources (such as wind and solar) and behind-the-meter distributed energy resources (DERs). The consistent growth of renewable energy and DERs calls for a paradigm shift in energy systems technologies, aiming to efficiently solve power systems challenges in terms of resilience, reliability, and economic efficiency. To help address these challenges, this talk will discuss a project on multi-timescale integrated thermal-electric energy systems (e.g., small modular reactor, renewable, hydrogen, district heating) modeling, control and operations to improve grid resilience, reliability, and economic efficiency.

Modeling and Control of Integrated Thermal-Electric Energy Systems for

Dr. Jie Zhang is currently an Associate Professor in the Department of Mechanical Engineering and Department of

Electrical and Computer Engineering (Affiliated) at the University of Texas at Dallas (UTD). Dr. Zhang received his Ph.D.

(2012) in Mechanical Engineering from Rensselaer Polytechnic Institute (RPI), Troy, NY, USA. His research expertise and

interests are power & energy systems, renewable integration, big data analytics, machine learning. This research has

resulted in over 190 peer-reviewed journal and conference publications. His major awards include: ONR's Young Inves-

tigator Award, ASME Design Automation Young Investigator Award, Fulbright U.S. Scholar Award, 9 best paper awards.

#### Efficient and Grid-interactive Building Energy Systems Enabled by Modeling, Controls and Optimization

Dr. Yaoyu Li is a professor in mechanical engineering at University of Texas at Dallas (UTD). His research interests are controls, optimization, modeling and monitoring for energy efficiency and renewable energy, including building HVAC, wind and solar, building- and vehicle-to-grid interactions, energy and thermal management of electrified vehicles. He has authored and co-authored over 150 journal and conference papers, and eight patents. After receiving his Ph.D. degree from Purdue University in 2004, Dr. Li was on faculty at University of Wisconsin – Milwaukee until 2011 when he joined UTD. He has been associate editor for IEEE/ASME Transactions on Mechatronics and IFAC Mechatronics.

#### Abstract

Buildings are responsible for 40% of total energy consumption in the U.S., thus efficient and sustainable buildings are critical for reducing carbon footprint and enhancing environmental sustainability. Contemporary building energy systems feature heating, ventilation and air conditioning (HVAC) systems, behind-the-meter renewable energy, onsite energy storage, incentive-driven grid interactions, and integration with electrified transportation. However, controls of building energy systems for efficient and economic operations are challenged by complex physics of building and equipment, uncertainties in load profiles and resource availability, as well as cost-driven industrial practice. To meet such challenges, dynamic modeling, intelligence and data analytics enabled controls, optimization and monitoring have become crucial technologies. In this talk, I will present some relevant research work in my group, from dynamic simulation modeling of building energy systems with multi-physical modeling platform, model-free optimizing control strategies for efficient operation of building HVAC systems, grid-interactive efficient controls of building HVAC and smart communities.



Dr. Janille Smith-Colin Assistant Professor, Department of Civil and

of Civil and Environmental Engineering, Southern Methodist University

#### **Towards Socially Sustainable and Resilient Infrastructure Projects**

Dr. Janille Smith-Colin holds the J. Lindsay Embrey Trustee Assistant Professorship and is an assistant professor of Civil and Environmental Engineering at Southern Methodist University. Janille's research advances the cross-cutting themes of equity, sustainability, and resilience in infrastructure management, with a specific focus on performancebased transportation systems planning and analysis. She has expertise in complex systems modeling that integrates qualitative and quantitative approaches including spatial analysis, statistical analysis, and text mining to examine the role of infrastructure in supporting communities, quality of life, and human well-being. She serves on the editorial board of the ASCE Journal of Infrastructure Systems and is a member of the ASCE Infrastructure Resilience Division – Social Science, Policy, Economics, Education, and Decisions (SPEED) Committee. Dr. Smith-Colin received her Ph.D. from the Georgia Institute of Technology. She is a licensed professional engineer.

#### Abstract

This presentation will highlight preliminary work to develop a project assessment framework that shifts from addressing project outcomes in isolation to one that adopt a systems approach, integrating value identification and value delivery to achieve project goals. This work builds on the existing body of knowledge advancing systems and sustainability thinking in infrastructure planning and delivery to address equity, and resilience, as well as tensions that often exist between these themes on projects. Overall, the presentation will (i) explore ways to use systems thinking in infrastructure project development, (ii) demonstrate the importance of systems thinking for understanding societal and community impacts of infrastructure interventions, and (iii) integrate the cross-cutting themes of equity, sustainability, and resilience. The resulting project assessment framework will ultimately move the infrastructure development sector closer towards assessing the social value of resilient infrastructure.

#### FALL SYMPOSIUM Leadership and Career Development Track



#### CHAIR Matt Tovar Transmission Planning

Manager, Oncor Electric Delivery



Mark Carpenter SVP, Oncor Electric Delivery



#### **Gaurav Shekhar**

Program Director and Assistant Professor of Instruction, The University of Texas at Dallas



**Sheana Chen** General Counsel, Vice President, Diodes Incorporated Mathew Tovar earned a BS in Electrical Engineering with a minor in Mathematics from Texas Tech University in 2011 and earned an MBA from Texas A&M University – Commerce in 2015. Licensed Professional Engineer in the State of Texas since 2015. Matt has worked for Oncor Electric Delivery for over 10 years, and is currently a manager in Oncor's Transmission Planning organization. Graduate of Oncor's APEX Leadership Development Program. Matt currently serves on the Industry Advisory Board for Texas A&M – Commerce's Electrical Engineering program. Texas native, happily married, father of three. Matt also participates in local triathlons throughout the year.

## A Few of Life's Lessons Learned Along the Way (What I wish I had known earlier)

Mark Carpenter is Sr. Vice President of Transmission & Distribution Operations at Oncor. Over Mark's 50 year career, he has held various field management and engineering management positions in transmission and distribution. Previous assignments also include Vice President-Chief Information Officer, Vice President-Chief Technology Officer, Director of Engineering, and Director of System Protection. Throughout his career, he has focused on developing people and creating high performance teams. Mark earned a BSEE at Texas Tech in 1975, is an IEEE Fellow, is a member of the IEEE/PES Industrial Advisory Council, and is on the Dean of Engineering Council at Texas Tech.

#### Abstract

This presentation will cover some fairly basic principles that, when followed, will improve interpersonal performance substantially. The presentation attempts to provide the audience the opportunity to learn some of these principles without having to make some of the makes that the presenter made in learning these truths.

#### Sustainability through the Lens of Data and Analytics

Gaurav Shekhar is a 2-time TEDx speaker and the Program Director of the Graduate Business Analytics Program (FLEX and Online). He is also an Assistant Professor of Instruction in the Information Systems area and teaches courses like Business Intelligence and Digital Consulting to both Graduate and Undergraduates. He was recently named as the 40 Under 40 Data Leaders for the year 2022 by the CDO Magazine, published by the prestigious Massachusetts Institute of Technology. He was also awarded the Graduate Faculty of the Year award for 2022 by the School of Management, UT Dallas. His main areas of research are IT Project Management, AI/Machine Learning, Natural Language, and Organizational Leadership.

#### Abstract

As the world addresses the need for a sustainable future, we must be aware of the tools that are at our disposal to make this quest more definite. The problems around sustainability have huge opportunities for resolution in a timely manner, if one piece of the puzzle is looked at in the right way – Data! The decisions that we take can help make or break this quest if they are not rendered in the right way. This presentation will explore some vantage points that try to use the flavor of data and analytics in a way that produces constructive and progressive solutions to the biggest problems in the area of sustainability.

#### Looking at Leadership through the Sustainability Perspective

Sheana Chen is an experienced global legal executive. Sheana is currently the corporate vice president of Diodes Incorporated, a Nasdaq listed global semiconductor company. As the General Counsel of the company, Sheana leads the company's legal department and overseas the company regulatory and compliance matters. Prior to joining Diodes, Sheana was the corporate vice president and assistance general counsel of Texas Instruments (TI), and led legal support for various business units, manufacturing organizations and support functions. Before joining TI, Sheana was a partner with Baker & McKenzie, a leading international law firm. Her extensive international and business experience makes her a great speaker on the topic of sustainability and sustainable leadership.

#### Abstract

"Environmental, Social and Governance (ESG) as well as Sustainability are the hot topics for today. During this brief presentation, we will look at our career progressions and transitions through the lens of ESG and Sustainability and leverage some of these concepts to apply to our professional life. For example, we will discuss the evolution from a shareholder-orientation approach to a stakeholder-oriented approach."

## **BANQUET KEYNOTE SPEAKER**



**Dr. Karthik Vasanth** VP and GM, Texas Instruments

Karthik Vasanth is vice president and general manager for Texas Instruments' Data Converters and Clocks business unit in the company's Analog Signal Chain organization. Under his leadership, his team develops innovative products and solutions for industrial, automotive, communication infrastructure, aerospace and defense, medical imaging and healthcare markets across the globe. After beginning his career in 1995 as an engineer in silicon technology development, Karthik has contributed to many technical innovations in device modeling, high-performance radio frequency and medical integrated circuits. He has authored more than 30 papers and developed several patented technologies. As a business leader he has grown several established and new technologies across several industries. Karthik earned a bachelor's degree in electronics and communication engineering from the Indian Institute of Technology Chennai (Madras) and master's and doctoral degrees in electrical engineering from Princeton University. He serves on the electrical engineering advisory boards at Princeton University and Southern Methodist University. Karthik loves to play cricket and travel with his family on Disney Vacations.

Building a sustainable future is dependent on enabling the green transformation and driving economic growth in areas that are environmentally friendly. One of these key foundational areas is renewable energy. Critical needs around the production, distribution and consumption of renewable energy have given rise to new semiconductor technologies that are accelerating the efficient use of green energy.

One of the main trends driving the need for more renewable, green energy is the electrification of vehicles. Vehicle electrification requires a new generation of energy production, storage and conversion of electricity to motion, which is being enabled by cutting-edge semiconductor technology. This of course introduces new challenges, but it also gives way to innovations that will impact our quest for a more sustainable future. In this talk, we will explore this megatrend, the associated challenges and the potential impacts vehicle electrification and renewable energy will have on our world.



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## Dr. Karthik Vasanth

VP and General Manager for DCC Business Unit Texas Instruments Incorporated

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CHINESE INSTITUTE OF ENGINEERS/USA DALLAS-FORT WORTH CHAPTER

September 24<sup>th</sup>, 2022

Tiger Zhou

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## WITH OUR GREATEST APPRECIATION

Since CIE/USA-DFW Chapter was founded in 1989, its core value has been based not only in promoting the community awareness in Science, Technology, Engineering and Mathematics (STEM), but also on its contributions to society. To honor this core value to community involvement, CIE/USA-DFW Chapter has created the CIE Outstanding Community Service Award (OCSA). Through this program, CIE recognizes teams and organizations that have made outstanding contributions to their community through their time, actions, and dedication.

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## 2022 Young Achiever Award (YAA)

The Young Achiever Award (YAA) is one of the flagship programs of CIE/ USA-DFW. The YAA is designed to encourage the younger generations of CIE members to achieve high academic performance, develop leadership skills, develop a strong interest in science and engineering, and excel in extracurricular and community volunteer activities. These well-rounded skills will enable them to become strong leaders in this very competitive global marketplace and achieve the greatest possible impact in our community.

CIE/USA-DFW is honored to have professionals from various industries to serve as judges in selecting the YAA recipients.



#### 2022 YAA CHAIR

Jen Hoch

### RECIPIENTS

#### Gabriel Bo

Plano West Senior High School

- 1. 2022 National Champion in Extemporaneous Speaking (NIETOC)
- 2. 2022 National Finalist in International Extemporaneous Speaking (National Speech and Debate Association)
- 3. 2022 National Runner Up in Extemporaneous Speaking (University of Emory Barkley Forum)
- 4. 2022 National Runner Up in the Junior World Affairs Council Academic WorldQuest
- 5. 2022 American Invitational Mathematics Examination (AIME) Qualifier

#### **Allyson Chen**

#### Allen High School

- 1. 2018-2021 Texas Music Teachers Association (TMTA) Student Affiliate State Finalist
- 2. 2022 TMEA All-Region and All-State Piano in the top orchestra
- 3. 2020-2021 President's Volunteer Service Award (PVSA) Gold
- 4. 2022 International Leadership Foundation (ILF) Youth Leadership Academy (1 of 25 students selected across the nation)
- 5. 2020 Dallas Symphonic Festival Piano First Place



#### Max Fan

#### Lebanon Trail High School

- 1. 2022 FTC Championship Inspire Award
- 2. 2021 ACP Foundation (Assoc. of Chinese Professional) Youth Award of Excellence
- 3. 2020 CIE/USA-DFW Community Resilience Scholarship
- 4. 2021-2022 STEM Bridge CAST STAR
- 5. Eagle Scout

#### Daisy Gan



Texas Academy of Mathematics & Science (TAMS)

- 1. 2022 Texas Science & Engineering Fair Mathematics State Finalist
- 2. 2022 Fort Worth Regional Science Fair Mu Alpha Theta special Award
- 3. 2020-2022 Texas Visual Arts Scholastic Events advanced to State
- 4. 2020 National Scholastic Art & Writing Silver Key (regionals)
- 5. 2020-2021 President's Volunteer Service Award

#### Andy Li

#### Southlake Carroll Senior High School

- 1. 2022 National Champion of Business Professionals of America's 'Presentation Management Team' Event
- 2. 2020-2022 Southlake Carroll Senior High's Varsity Tennis Team
- 3. 2022 Life-rank and Order of the Arrow member in Boy Scouts of America
- 4. 2022 Founder and President of Southlake Carroll Senior High's Chess Club
- 5. 2021 Royal Conservatory of Music's Level 10 Piano Exam Passed

#### Neil Song

#### St. Marks School of Texas



- 2022 (August) Coauthored and presented "Exploring the Attributes of Social Media Reputation of Fortune 500 Companies" at the VI-International European Conference on Interdisciplinary Scientific Research with Professor Zhang Xiaoqun
- 2. 2022 2nd author of "NeuralGrasps: Learning Implicit Representations for Grasps of Multiple Robotic Hands" accepted to Conference on Robot Learning
- 3. 2021 Executive Chairman of MetroHacks
- 4. 2021 ASR-X Team Captain 1st place at VMware High School Hacks
- 5. Eagle Scout of Boy Scout Troop 730



#### Michelle Xing

#### **Highland Park High School**

- 1. 2020-2022 3x American Invitational Mathematics Examination (AIME) Qualifier
- 2. 2020 The Grand Concours/The National French Contest French 2A Platinum Distinction
- 3. 2022 UKBC Intermediate Biology Olympiad Gold Award
- 4. 2020 UIL 5A Team Tennis State Champion
- 5. 2022 Gold President's Volunteer Service Award

#### **Angelina Yang**

#### Plano West Senior High School



- 1. 2021 Admitted and enrolled in High School Research Academy (HSRA) of University of Texas at Austin
- 2. 2021 Research Publication Angelina Yang, Journal of Student Research, Vol. 10, No. 4, 2021
- 3. Art Awards: 2021 High school finalist of PISD Kindness Cards Competition and 2022 National Art Honor Society Award of Achievement
- 4. 2020 State Visual Arts Scholastic Event Gold winner
- 5. Co-founder of a Volleyball Volunteer Coach Team (4 ex club players) in PSA

#### Abhigna Yella

Justin Wakeland High School



- 1. Salutatorian of Sophomore class: Ranked 2 of 505
- 2. NJROTC Cadet Petty Officer 3rd Class (Rank: E-4) decorated with National Sojourners Award (2021-2022) and Bravo Zulu Honor
- 3. Frisco-ISD NJROTC (Navy Junior Reserve Officer Training Corps) company Logistics Officer
- 4. 2021-2022 1st place: Innovate4Change Pitch Competition-EarthX & DECA & UN Sustainable Goals
- 5. 2020-2022 DECA District Winner & State Finalist Acctg. Application Individual Series

#### Alison Zou

#### **Highland Park High School**

- 1. Captain of varsity robotics at HPHS; initiated first hackathon for the high school robotics program
- 2. Founder and president of Culture Awareness Club at HPHS; organized fundraisers to support Ukraine relief efforts
- 3. 2022 Scholastic Art and Writing Award Silver Key
- 4. 2019, 2021 The President's Volunteer Service Award
- 5. 2022 Business Professionals of America Regional Champion



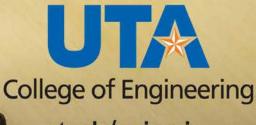
#### Catalina Zuo

#### **Rock Hill High School**

- 1. 2022 United States National Chemistry Olympiad (USNCO) National Qualifier
- 2. 2022 Dallas Regional Science & Engineering Fair (DRSEF) 1st Place Special Award
- 3. 2021 National Speech and Debate Association (NSDA) Informative Speaking National Qualifier
- 4. 2021-2022 Youth Entrepreneur Society (YES) Outstanding Contribution Award and Service Award
- 5. 2021-2022 Rock Hill High School Certificate of Excellence X4

The 2022 Young Achiever Award recipients will be recognized and celebrated at the 2022 CIE-USA/DFW Chapter Annual Convention and YAA Award Ceremony on September 24, 2022. Yan Wan is a Distinguished University Professor in UTA's Electrical Engineering Department and director of the Dynamic Networks and Control Laboratory. Her research focuses on fundamental intelligent control, cyber-physical systems, and optimization theories, with potential applications in microgrids, multi-robot systems, and autonomous driving.

Dr. Wan is just one example of how UTA's College of Engineering is driving innovation in North Texas and beyond.



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廣告



2021 CIE/USA-DFW VIRTUAL ANNUAL CONVENTION382022 OFFICERS AND VOLUNTEERS ORIENTATION422022 STUDENT ENGINEERING CREATIVITY CONVENTION (SECC)42022 MATH COMP/MATH FUN AND PARENTING SEMINAR442022 DFW CHINESE YOUTH CAMP (CYC)45YOUTH ENGLISH SPEECH WORKSHOPS AND CONTEST46

# 2021-2022 CIE Events

# 2021-2022 CIE/USA-DFW EVENTS OVERVIEW

Dec 12, 2021	CIE/USA-DFW Mentoring Circle - Interactive Forum Claire Jung
Jan 15, 2022	<b>2022 Officers and Volunteers Orientation</b> Chris Koh
Mar – Dec 2022	<b>Mentoring Circle</b> Claire Jung
Mar 5 & 26, Apr 23, 2022	Student Engineering Creativity Convention (SECC) Xincheng Tang, Huawen Jin
Jun 11, 2022	Math Comp/Math Fun (MCMF) & Parenting Seminar Yannan Sun, Bryan Taylor
Jun 4 & 18, Jun 25, 2022	<b>DFW Youth English Speech Workshops and Contest</b> Nattawut Sridranop
Jul 3-9, 2022	<b>DFW Chinese Youth Camp (CYC), sponsored program</b> Ting-Whai Lee
Sep 24, 2022	<b>CIE/USA-DFW Chapter Annual Convention</b>
	Will Jordan
Sep 24, 2022	<b>Technical Symposium</b> JC. Chiao, Nick Fang, Mohammad Khodayar
Sep 24, 2022	<b>Technical Executive Forum</b> Lun Tsuei
Sep 24, 2022	<b>Leadership and Career Development Seminar</b> Matt Tovar
Sep 24, 2022	<b>Young Achiever Award (YAA)</b> Jenny Hoch
Oct 15, 2022	CIE Picnic Chris Koh 37

# 2021 CIE/USA-DFW VIRTUAL ANNUAL CONVENTION



CHAIR Dr. Tiger Zhou



CO-CHAIR Dr. Chris Koh

On September 18th &25th CIE/USA-DFW hosted the virtual fall symposium and annual convention. Hundreds of people registered for this two-day event. Among them, 2/3 of participants are from the DFW area, the rest are domestic guests as far as California and New York.

Our technical seminar is full of technical topics which cover medical, sensors and communications. Three invited speakers share their current research and development works emphasizing the multidisciplinary trends and needs in solving practical problems, and career opportunities for the future.

Our technical executive forum invited 5 panelists with diverse background from different industries.

Our leadership and career development seminar invited three highly accomplished and seasoned leaders from the technology sector, addressed the human and leadership elements that are needed for success in the post-pandemic workplace.

All events received very positive feedback from the audience. The overall rating for technical seminar is 4.57 out of 5. The overall rating for leadership and career development seminar is 4.54 out of 5, the technical executive forum receives 5 out of 5 the highest rating.



2/3 participants to the fall symposium were from the DFW area, with guests all across the nation.



CIE thanks all the speakers and panelists for making the annual convention a huge success!

# 2021 VIRTUAL FALL SYMPOSIUM Technical Executive Forum



#### CHAIR Dr. Lun Tsuei

The 2021 CIE-DFW Technical Executive Forum was again a virtual event due to COVID-19 pandemic. This year we invited 5 panelists with diverse background from different industries, including: Dr. Chi-Foon Chan, President & Co-CEO at Synopsys; Troy Graziani, Director of Credit and Customer Experience at Toyota Industries; Paul Nichols, Executive Director at the Institute for Innovation & Entrepreneurship at University of Texas at Dallas; Dr. Daniel Siegwart, Associate Professor at UT Southwestern Medical Center & Co-Founder/Advisor at ReCode Therapeutics; and Steven Yahata, Vice President, Integrated Vehicle Systems at Boeing Research & Technology. Both Dr. Chan and Mr. Yahata are AAEOY awardees.

The audience was welcomed by the event chair Dr. Lun Tsuei (2021 CIE/USA-DFW Chairman of the Board) and the event host David Lu (Vice President of Network Systems and Automation at AT&T Labs).

Dr. Mary Cooley (COO of Dynofit) moderated the panel discussion. The forum started with the questions related to the "Work from Home" and how that has impacted the workplace. The discussion covered wide aspects of COVID-19: mRNA and vaccine development, collaborative research, corporate new product development targeted on health and safety needs, and the inspirations in innovation and startup investment. The audience was able to participate in the Forum by submitting live chat questions that were answered by panelists live, and through the Q&A chat feature in real time. The discussions were inspiring and insightful, and the event was extended for about half an hour in order to accommodate the questions asked. Overall the Technical Executive Forum was well reviewed by attendees with a lot of positive feedback for next year's Forum!



2021 CIE/USA-DFW FALL SYMPOSIUM



2021 Panelist

HOST

**Technical Seminar** 



#### Dr. J.-C. Chiao

The Fall Technical Symposium Webinar is held on Saturday September 18, 2021. Amid the COVID-19 pandemic, the virtual event is organized with the 2021 CIE/USA-DFW Annual Convention. The Fall Technical Symposium features the theme "Technology Fusion – Thriving in a Post-Pandemic World" aiming to exchange ideas and insights in the world of fast and complex changes affected by not only the technology advances but also quickly-evolving complex problems. The global pandemic create new challenges but also opportunities.

On September 18, the technical seminar is coordinated by Professor J.-C. Chiao, Mary and Richard Templeton Centennial Chair of Electrical and Computer Engineering at Southern Methodist University. Three invited speakers share their current research and development works emphasizing the multidisciplinary trends and needs in solving practical problems, and career opportunities for the future. Dr. Alec Zhang, Morton H. Sanger Professorship in



Oncology and Michael L. Rosenberg Scholar for Biomedical Research at UT Southwestern presents a talk titled "Cancer Immunotherapy, a Promising New Cancer Treatment". He shares the advances in cancer treatment, particularly novel cancer immunotherapies that serve as a new generation of cancer treatment. He introduces three types of immunotherapies: immune checkpoint blockade (represented by the PD-1 antibody therapy), CAR-T cells (currently for blood cancers), and personalized cancer vaccine (still in clinical trials) to highlight their tremendous potentials in the future. Dr. Zhang gives examples of ongoing promising research and discusses future perspectives.

Dr. Changzhi Li, Professor and Whitacre Chair in Electrical and Computer Engineering at Texas Tech University. His research interests focus on microwave/millimeter-wave sensing for healthcare, security, energy efficiency, and human-machine interface. He presents the applications of portable radar sensors with remotely sensing various life activities with electromagnetic signals. Dr. Li provides an overview of modern smart radar sensors based on advanced electrical and computer engineering technologies including semiconductor chips and machine learning algorithms with examples of non-contact human vital signs monitoring, wireless human-computer interface, continuous driving behavior recognition, indoor user localization, and activity classification. He gives insights on smart radar sensors in healthcare, automotive, IT industry, and for smart living sectors of daily life. Dr. Li's talk concludes with future industrial and academic R&D outlooks and career potentials for future engineers.

Vice President of Network Systems & Automation, Mr. David Lu, at AT&T Labs who has been leading a global team of more than 2500 people responsible for the architecture, development and engineering of AT&T's next generation Software Defined Network automation platform and open source. His talk focuses on the evolutionary paths of converged network technologies, wireless broadband, fiber broadband, Software Defined Network and 5G in the past decade. The journey planned into the next decade is discussed with visions to unleash the power of innovation with extraordinary speeds and scales in communication. He exemplifies technology advancements including the convergence of hardware and software, physical and virtual devices, open architecture aiming for ultrafast speeds with extremely low latency, high capacity, improved reliability and security. Artificial Intelligence (AI) enabled sensors in rapidly changing business landscape is also discussed. Mr. Lu brings insights about the unprecedented new application opportunities for entrepreneurship and engineers.



### **Leadership and Career Development Seminar**



#### CHAIR Dr. Chris Koh

On the afternoon of September 25, 2021, the third and last online technical sharing event of the CIE/USA-DFW's Annual Convention the Leadership and Career Development Webinar - took place. This webinar, incorporating the Annual Convention's theme of Technology Fusion: Thriving in a Post Pandemic World, addressed the human and leadership elements that are needed for success in the post-pandemic workplace. This virtual event featured three highly accomplished and seasoned leaders from the technology sector: Ms. Gilma Saravia, Chief People Officer of Altair, Dr. Gurshaman Baweja, SVP and CIO, IT Services, Texas Instruments, and Ms. Ellen Buck, VP, Business and Operations Services, Oncor Electric Delivery.

Ms. Saravia's presentation brought to life the importance of company culture to successfully navigate challenges during the pandemic, and how enabling employees to take appropriate business risks and celebrating successes through effective communications across the organization will position individuals and organizations to greater heights as we move forward.

Dr. Baweja reflected on the journey and lessons learned from the pandemic so far, and shared personal experiences from coaching sport teams to successfully managing and inspiring colleagues at work. He commented on the resilience of the workforce, and how many have adopted the use of technology to remain productive. He also noted that while virtual collaboration was already in place for a global company such as TI, the current situation has further raised the effectiveness of working together virtually.

He concluded by reiterating that being ready to deal with changes, effective collaboration and constantly learning are the key ingredients to success.

Ms. Buck likened career development approach to that of tending a garden. She highlighted the importance of learning the culture and unspoken norms of a company, which is especially important in a hybrid work environment. She spoke of the importance of mentorship (both mentoring and being mentored) and the ability to adapt your communication styles when working in virtual and inperson situations. Lastly, she pointed out the need for strong time management to ensure a good work-life balance.

After the three speakers shared their unique and insightful perspectives on how best to shape and grow one's career in the 21st century, a panel discussion moderated by Dr. Chris Koh, CIE board member and PepsiCo Sr. Fellow, opened up the discussion between the panel and the audience. The audience took advantage of this portion of the webinar to ask specific questions, and allowed the speakers to provide more in-depth and nuanced comments to bring their points home. What made this discussion particularly impactful is not only the interaction with the audience, but that the speakers were able to build on each other's answers to give the audience a broader perspective.

At the conclusion of the panel discussion, CIE/USA-DFW's Chairman of the Board, Dr. Lun Tsuei and CIE/USA-DFW President, Dr. Tiger Zhou, presented each of the distinguished speakers with a plaque of appreciation.



CIE Chairman Dr. Lun Tsuei and CIE President Dr. Tiger Zhou thank our distinguished speakers and panelists



CIE presented appreciation plaques to Ms. Gilma Saravia and other speaker.

# **2022 OFFICERS AND VOLUNTEERS ORIENTATION**



#### CHAIR Dr. Chris Koh

The effective operation of any organization requires a common understanding of its goals, culture, processes and an appreciation of its history. CIE/USA-DFW is no different, and to that end, our kickoff meeting in 2022 was designed to orient our new officers and volunteers.

After some welcoming remarks by Chris Koh (chapter president), Dr. Faa-Ching Wang, chapter founder and advisor, shared the chapter's vision and rich history.

Jeffrey Cornell and Grace Tyler provided an overview of the by-laws and ethics and policy guidelines. Leveraging video skits created by our team members, they effectively demonstrated the "do's and don'ts." Additionally, Jen Hoch gave a summary of CIE's financial operating procedures.

Claire Jung shared highlights of the Mentoring Circle program and encouraged the new officers and volunteers to take advantage of this unique and impactful program.

To give the team a better perspective of how our organization deliver against our mission, Tiger Zhou, 2022 Chair, summarized the Chapter's 2021 programs and achievements, while Chris Koh briefed the team the 2022 high level goals as well as key programs we planned to deliver.

Since we have many new team members, we devoted a good portion of the meeting to a "Get to Know Each Other" discussion with each of the new officers/event chairs telling the team a little about their personal and professional self.

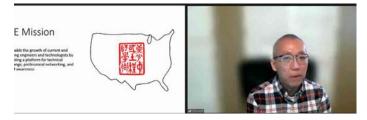
We wrapped up the afternoon with some fun and games, and the winners each received a pair of chopsticks customized with CIE's logo.



A group of dedicated officers and volunteers joined the CIE orientation



2022 YAA chair Ms. Jen Hoch introduced her plan and goal



2022 CIE President Dr. Chris Koh briefed the team on CIE's plan and goals



CIE founder and advisor, Dr. Faa-Ching Wang shared CIE's vision and rich history

# **2022 STUDENT ENGINEERING CREATIVITY CONVENTION (SECC)**



#### CHAIR



CIE/USA-DFW successfully held the 5th annual SECC on Saturday, April 23rd, 2022. Because of global microchip shortage going on this year, decision was made to focus on software implementation using two popular app development tools, namely SCRATCH and App Inventor from MIT. Hosting this event online expanded CIE/USA-DFW's impact to students outside the Dallas-Fort Worth Metroplex, including participants from East coast, California and Australia. The SECC is a flagship youth program of CIE/USA-DFW, featuring engineering competitions for students in grades 1-12, including two workshops and final ceremony. The goal of the program was to help students to develop their interest in Science, Technology, and Engineering with hands-on experience as well as being creative when facing challenges.

In the 2022 SECC program, we developed two projects: the Division A project using SCRATCH, mainly focuses on 6 grade and under; and the Division B project using App Inventor for middle and high school students, though lower grade students can still attend. For the Division B project, we further expanded the task to implement and demonstrate the App using a cellphone. The themes were "City of Future!", and Community Computational Action.

The first SECC workshop invited several speakers from software development industry to introduce the impact by coding on future work/life experiences, in addition to introduction of development environments. This workshop attracted more than 100 participants and many of contest registrants. The second SECC workshop gave live demonstration and step-by-step explanation for SCRATCH and APP Inventor. This year's SECC saw 9 teams from Division A and 15 teams from Division B project submitted short introduction videos for judges to evaluate basic scores. Each team then had interview with judges in Zoom breakout rooms for 10 minutes on the competition day before a final composite score was given to each team. Jasmine Yin hosted the prize announcement ceremony by live interviewing contestants after showing their video submission. The award ceremony reached its climax when the award winners were announced. CIE/USA-DFW presented 3 trophies to Division A winners and 6 trophies to the Division B winners. Three contestants were presented with Creativity prize based on their "creativity score".



CO-CHAIR

Dr. Huawen Jin

1<sup>st</sup> Place **Division-A** 2<sup>nd</sup> Place 3<sup>rd</sup> Place City of Future Roger Zhang Angela Guo, Joanne Li Ryan Tseng, Aiden Guo City of Future Esslyn Mui 2<sup>nd</sup> Place **3rd Place** 1<sup>st</sup> Place **Division-A** Citv of Future Evan Chen, laida Gao. Crvstal Shen, Felix Sun, Jason Huang, Sophia Zhou, Jaden Chan Nancy Chen Zehan Li Community Andrew Ye Everett lin Eviss Wu, Betty Computational Yan, Matthew Wang Creativity Olivia Zhang Alisa Tong, Alisa Wei William Zhou



CIE president Chris Koh presenting trophy to student winner



Mr. Andrew Jiang introduces the Scratch software platform to the participants



Mr. Earl Reyes of American Airlines shares his inspirational insights as a software engineering professional with the students

# 2022 MATH COMP/MATH FUN AND PARENTING SEMINAR



#### **CHAIR**



CIE/USA-DFW successfully held the 33rd an nual MathComp/ MathFun on Saturday, Jun 11th, 2022. It is the flagship youth program of CIE/USA-DFW, featuring a math competition for students from first through eighth grade, a parenting seminar, and a math fun fair. The goal of this event is to allow students to develop their interest in Science Technology, Engineering and Mathematics (STEM).

After having this event virtually for two years, MathComp/MathFun returned as an in person event at Collin College Spring Creek Campus this year. More than 200 contestants registered in MathComp (math competition) with more than 70 adult and youth volunteers signed up to assist with th event.

While the contestants were taking their tests, over 300 parents and guests attended a separate parenting seminar and panel discussions. The theme of the parenting seminar was "How to Sustain Interest in STEM." Marissa Yang served as the Master of Ceremony and moderator for this session, with four panelists including: Professor Sheng Xu (SMU), and students Zachary Tian Sophia Cai, and Rick Li.

After the Math Comp (competition), the students rushed out of the classrooms and enthusiastically participated in MathFun, ar interactive program designed for students to broaden their critical thinking skills and to learn to apply mathematics to real life challenges. MathFun included chess, electric circuits, and robotics demonstrations.

Jasmine Yin was the Master of Ceremony for the awards ceremony. CIE presented Gold Award and Silver Award trophies to 40 winners, who were ranked in the top 20% of their grade. In addition, 32 students received honorable mention medals. Congratulations to the award winners! The winner list can be found at the CIE event site here.



**CHAIR** 

**Bryan Taylor** 

n-	Grade 1					
	Gold	Seldon	Ye	Grade 5		
ne	Gold	Brandon	Gu	Gold	Nathan	Liu
n	Silver	Amelia	Chou	Gold	Derek	Lin
i-	Silver	Evan	Geng	Silver	Daniel	Zhou
	Silver	Yimeng	Li	Silver	Ethan	Ye
	Honorable Mention	Hamsini	Venkatesh	Silver	Joshua	Shu
	Honorable Mention	Ethan	Lu	Honorable Mention	Kristine	Qiao
	Honorable Mention	Lucas	Wang	Honorable Mention	Andrew	Zheng
	Honorable Mention	Aiden	Guo	Honorable Mention	Emma	Zhu
:e,				Honorable Mention	Brian	Wu
;	Grade 2					
	Gold	Angela	Guo	Grade 6		
	Gold	Cyrus	Kuang	Gold	Bryan	Kuang
	Silver	Han	Shao	Gold	Jay	Yi
	Silver	Sixuan	Du	Silver	Daniel	Tang
	Silver	Anthony	Hu	Silver	Jiayan	Wang
	Honorable Mention	Suhui	Li	Silver	Devin	Li
	Honorable Mention	Dion	Sun	Honorable Mention	Jacob	Yang
	Honorable Mention	Audrey	Chwa	Honorable Mention	Owen	Xie
า	Honorable Mention	Steven	He	Honorable Mention	Vivinsha	Vedur
	0			Grade 7		
	Grade 3 Gold	Tamanau	13	Gold	Shourya	Vyas
he	Gold	Tommy	Li	Gold	Leo	Li
	Gold	Ayden	Jin Mei	Silver	Claire	Wu
	Silver	Zhongze Alexander	Su	Silver	Keshav	Ananc
	Silver	Daniel	Hu	Honorable Mention	Jennifer	Duan
	Silver	Caleb	Zhang	Honorable Mention	Zongcheng	
ed	Silver	Ethan	Shi	Honorable Mention	Jenny	Chu
	Honorable Mention	Isabella	Song			
	Honorable Mention	Ally	lin	Grade 8		
	Honorable Mention	Daniel	Huang	Gold	Aaron	Kuang
	Honorable Mention	Neal	Stevens	Silver	Kayden	Zhong
of	Honorable Mention	Leo	Lin	Silver	Harini	Venka
	Honorable Mention	Sky	Yasuda	Honorable Mention	David	Liu
		Sity	lasada	Honorable Mention	Krish	Goudo
n	Grade 4					
n,	Gold	Benjamin	Dong			
	Gold	Shaheem	Samsudeen			
	Silver	Lillian	Ye			
	Silver	Avery	Hu			
	Silver	Avahan	Gautam			
r	Silver	Emma	Yang			
n	Honorable Mention	Avni	Gautam			
	Honorable Mention	Yifei	Mei			
	Honorable Mention	Brihasa	Veduru			
	Honorable Mention	Ethan	Guo			
	Honorable Mention	Alex	Lin			
ric	Honorable Mention	Nathan	Lee			
-						

MathComp/MathFun 2022 was co-chaired by Yannan Sun and Bryan Taylor. The program committee and CIE/USA-DFW would like to express our sincere appreciation to all the volunteers and corporate sponsors - Oncor, Texas Instruments, Diodes Incorporated, AT&T, PepsiCo, Cathay Bank Foundation, Cindi's New York Delicatessen, ConsulPath Inc., and American Airlines - for their contributions to make this event a great success!



MCMF volunteers group photo



CIE presented appreciation plaques to parenting seminar speakers



Oiao Zheng

Kuang

Xie Veduru

Zhong Venkatesh

Goudar

MCMF winners received their trophies and medals with big smiles

# 2022 DFW CHINESE YOUTH CAMP (CYC)



#### CHAIR Young Po

CIE/USA-DFW has sponsored yet another successful youth event, the 2022 DFW Chinese Youth Camp (CYC), which was held on July 3rd through July 9th. Because of the pandemic, CYC has not happened since 2019, and even with an abbreviated timeline to prepare for this year's camp, over two hundred campers (aged 10 to 17) and counselors (aged 15 to 18) participated in the summer camp activities. One teacher traveled from Taiwan to teach Chinese folk activities, and another teacher traveled from Boston to teach Chinese folk dance. Although this was the first time for the majority of the campers to learn Chinese yo-yo, they enjoyed learning various tricks with the Chinese yo-yo and were able to showcase their talents at the closing ceremony.

They also performed folk dances that included lions, fans, lanterns, and more. In addition, CYC had several local teachers teach classes such as art, lion dance, fitness dance, leadership, APAA (Asian Pacific American Advocates), health, Kung-Fu, Chinese calligraphy, STEM, etiquette, etc. In APAA, they learned skills to be an advocate and leader in the community as well as developed their problem solving and teamworkskills. In STEM, they enjoyed challenging themselves, making hypotheses, and more by making bridges and launching rockets. In health, campers learned about mental health and managing stress. Campers also brought many souvenirs home, such as the beautiful artwork they created, prizes from the Thursday evening's Night Market, and sheets of Chinese calligraphy writing. The 2022 DFW CYC ended with a memorable closing ceremony presented by the campers and counselors.

Parents were highly impressed by the performances and with the progress made by their children during the camp week. They saw how their children developed and grew from the camp experience, and through the performances, they could see how their children made memories and lasting friendships. CYC is a community, and more importantly, we are a family. We cannot wait to see everyone come back next year!







# YOUTH ENGLISH SPEECH WORKSHOPS AND CONTEST



#### CHAIR

#### Nattawut Sridranop

The 2022 DFW Youth English Speech Contest was hosted by the Chinese Institute of Engineers/USA – DFW Chapter, organized by volunteers from the Texas Dragon Toastmasters Club, and sponsored by Oncor, Texas Instruments, Diodes, AT&T, PEPSICO, Cathay Bank, Cindi's New York Deli and University of Texas at Dallas.

The goals for the Youth Speech Contest are to promote interest in public speaking, provide a platform for participants to demonstrate their speaking skills, foster participants' self-confidence and recognize participants' talents to inspire others. The Youth English Speech Contest had served the DFW community for over 10 years. Every year it attracts over 100 students from 1st to 12th grade to compete in this great contest.

Nine committee members worked for months to make the contest fair, fun and successful. The contest committee was proud to organize an event that encouraged students' interest in public speaking. Before the competition, the committee also held public speaking workshops on June 4 and June 18. Over 200 students and parents attended the workshops, which covered how to organize a speech in a clear, logical manner, use vocal variety to capture the audience's attention, effectively deliver one's message and incorporate gestures to emphasize key points. Communication is integral to many aspects of daily life, and the committee hopes these workshops and contest participants can apply their skills to achieve future success.

The contest was held on Saturday, June 25, at the University of Texas at Dallas. 124 students from 1st to 12th grades registered for this event. Over 200 family members and friends, plus over 60 event volunteers, were there to support them. Students spoke on a variety of topics including their vacations, hobbies, challenges, and environmental issues. These speeches were greeted with appreciative smiles and applause from the audience. Chief Judge Mrs. Grace Tyler, a Distinguished Toastmaster, recruited 20 highly experienced contest judges. In addition, Ms. Jan Benmard, 2rd place winner of the 2020 Toastmasters Plains division International Speech contest, gave an inspirational speech at the award ceremony. The participants were excited and encouraged by Ms. Benmard's speech "Face Your Fear", where she talked about never giving up despite having setbacks.

This was a very successful event. Over 100 students are inspired and encouraged to continue their public speaking journey. The postcontest poll also showed they will consider competing next year. It was also great experience for the committee members, who learned a lot about communication skills, teamwork, and leadership. The committee is proud of their contribution to the community.



CIE Chairman, Dr. Tiger Zhou presented trophies and medals to group E1 winners



2022 YESC organizing committee group photo



CIE founder and advisor, Dr. Faa-Ching Wang presented trophies and medals to group E2 winners



Group	Grades	First Place	Second Place	Third Place	Honorable Mentions
А	1	Hamsini Venkatesh	lvy Liu	Mei Sheng	Jenny Huang, Aiden Guo, Brandon Gu, Preston Goh
В	2	Angela Guo	Ryker Liu	Edison Olougouna	Rachel Sun, Siddharth Hegde, Wilson Zhou, Ananya Sheshadri
CD1	3&4	Evelyn Harada	Anjali Ipe	Cece Gao	Daniel Hu, Jack Chen, Sophia Mao, Rishabh Kasera
CD2	3&4	Hannah Wu	Claire Zhang	Lillian Ye	Harry Yang, Charlie Zhang, Kai Sheng, Ethan Shi, Miya Su
E1	5	Varshini Arulkumaran	Keya Kris Ramalingam	Mitra Amin	Yimo Liu
E2	6	Kathleen Jiang	Vicky Cao	Emily Chen	Anna Olougouna, Carolyn Wang, Kyle Lin, Melissa Zhou
F1	7&8	Alice Lee	Aakash Arulkumaran	Jennifer Duan	Nichole Larsen, Tony Lu
F2	7&8	Harini Venkatesh	Jimmy(YingKe) Zhang	Trinity Tandon	Aarya Shrestha
G1/2/3	9 - 12	Aditi Amin	Aabha Shrestha	Advika Varadharajan	Xinpei (Selina) Wang



TI CHEN chair, Ms. Elizabeth Wilson presented trophies and medals to group F2 winners



medals to group G winners

UTD program director, Mr. Gaurav Shekhar presented trophies and medals to group CD2 winners



UTD program director, Mr. Gaurav Shekhar presented trophies and Oncor manager, Mr. Jeremy Preas presented trophies and medals to group F1 winners

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2022 CIE Committee

# **ABOUT CIE/USA**

Mission - Chinese Institute of Engineers (CIE/USA) is dedicated to promoting engineering and scientific excellence, professional advancement and leadership development of Asian- Americans.

**History** - The Chinese Institute of Engineers was founded in 1917 in New York by a group of Chinese engineers who graduated from American universities and served in various industries in the United States. The main organization moved back to China during World War II, then moved to Taiwan. The American counterpart became a separate chapter. In 1977, the institute was renamed the "Chinese Institute of Engineers, USA (CIE/USA)," with a mission to serve members from all over the United States. Since then, seven area chapters, namely the Greater New York, San Francisco-Bay Area, Seattle, Dallas-Fort Worth, OCEESA, New Mexico, and Southern California chapters have been established. CIE/USA works with other professional organizations to sponsor events, such as venture capital and management seminars, technical conferences, and high-tech exhibitions, and to promote joint interests and partnership in technology among the US, China and Taiwan. CIE/USA also co-sponsors the Sino-American Technology Engineering Conference (SATEC) in Beijing and the Modern Engineering and Technology Seminars (METS) in Taipei every other year.

# **ABOUT CIE/USA-DFW CHAPTER**

The Dallas-Fort Worth Chapter was established in January, 1989 and registered in the state of Texas as a non-profit organization in 1992. Over the years, the CIE/USA-DFW chapter has established close ties with major corporations and government bodies around the world. Leaders from these sponsoring organizations highlight every year's convention by sharing their experience and insight in business and technology at our evening banquet.

The mission of CIE/USA-DFW is to enable the growth of current and aspiring engineers and technologists by providing a platform for technical exchange, professional networking, and STEM awareness.

#### Benefits of CIE/USA-DFW Chapter Membership

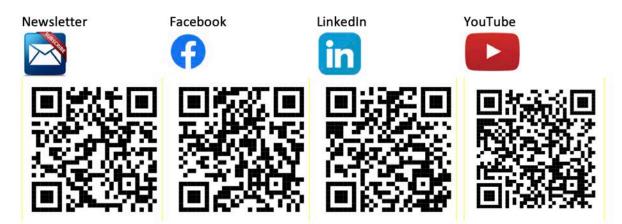
**Technical Advancement** - DFW Chapter provides firsthand and first class technical information through our members' affiliation with high-tech industries in the global market and international business.

**Networking Opportunities** - Attending DFW Chapter sponsored seminars and social activities within each technical group provide abundant networking opportunities.

**Employment Opportunities** - Attending DFW Chapter job related seminars and networking with our members who are managers in local Fortune 500 companies provides potential employment opportunities.

**Special Discounts** - DFW Chapter members enjoy discounts on attending the DFW Chapter annual convention and DFW Chapter sponsored events and activities. Discounts are provided by our sponsors and vendors.

**CIE Website** - The DFW Chapter website (www.cie-dfw. org) provides news and highlights of DFW Chapter sponsored technical and nontechnical seminars and notices of DFW Chapter sponsored business, educational, cultural, and social programs. Sign up our newsletter, follow us on Facebook and LinkedIn, and watch the event programs on our YouTube channel. **Join us as a member of the CIE family!** 



### **2022 CIE/USA NATIONAL COUNCIL** National Council Advisors

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#### **Chapter Representatives**

Dallas/ Fort	<u>Worth</u>	Greater Nev	w York	<u>San Francisco</u>	Bay Area	OCE	ESA
Claire Jung	榮慶珊	Jeng-Ban Yau	姚正邦	Raymond Chen	陈宇哲		
Grace Tyler	蔣金玉	Pin-yu Chen	陳品諭	Brian Pan	潘濟群	Wei-Ping Pan	潘伟平
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Tiger Zhou	周細根	Tzuyang Yu	游子揚	Bill Kao	高耀京		
Xinfen Chen	陳信芬	Pin-Yu Chen	陳品諭	Jonanthan Chiang	姜至真		
Chris Koh				Libo Weng	翁立波		
New Me	<u>kico</u>	<u>Southern Ca</u>	<u>lifornia</u>	Seat	le		
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		Mabel Hsi	席美寶	Gina Li	李建平		
		Scarlett Kwong	趙百淳	Yong Zhou	周雍		

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### **2022 CIE/USA-DFW OFFICERS**, **BOARD & ADVISORS** ....

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MCMF Chairs	Yannan Sun, Bryan Taylor	David Lu	
YAA Chair	Jen Hoch	Hedison Mui	
		Jorge Varela	

# 2022 ANNUAL CONVENTION PLAN-NING COMMITTEE



Will Jordan Convention Chair

<b>Convention Advisors</b>	Banqu
Claire Jung	Tina Zl
Grace Tyler	Banqu
Tiger Zhou	Hong J
<b>Executive Forum Chair</b>	VIP R
Lun Tsuei	Huawe
Executive Forum Moderator	VIP R
Mary Cooley	Samm
Technology Symposium Chair	VIP R
JC. Chiao	Christi
Symposium Session Chairs	Young
Nick Fang	Jen Ho
Mohammad Khodayar	Volun
Matt Tovar	Allen T
Logistics	Mark
Sean Luo	Jian Liu
Hotel Liaison	Jan Be
Bryan Taylor	Glen ([
Registration	Huang
Susan Yin	CIE Yo
Jasmine Yin	Proce
Martin Zhang	Molly
	Jian Liu
	Jan Be
	Audrey

uet Chair Ihang uet Emcee Jiang **Reception Chair** en Jin **Reception Advisor** ny Yang Reception Emcee i Popovich g Achiever Award och nteer Coordinator Tam, Sean Luo eting iu enmard (Dian) Fan g-Chun Wen outh Marketing Team edings Song iu enmard Audrey He **CIE Youth Marketing Team**  Presentation Audrey He Jan Benmard Performance Director Jinhong Liu Procurement Huawen Jin Photographers Jarvis Jacob Jan Xie About CIE Youth Marketing Team

We started a youth marketing team this year out of Young Achiever Award (YAA) winners and other high school kids. It's an incredible experience for us to be inspired by their creative work, as well as to witness the development of the next generation community leaders.

Audrey He Zachary Tian Aaron Liu Christine Yan Joy Ting Oliver Chen Ashley Zhang Andrew Ye



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We hope you take advantage of the convention to explore new ideas, advance your knowledge, build connections, and move closer to realizing your full potential as a professional and as an industry advocate for STEM and sustainability.



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