Eta Kappa Nu
Lambda Zeta Chapter
2021 - 2022 Annual Report

Table of Contents

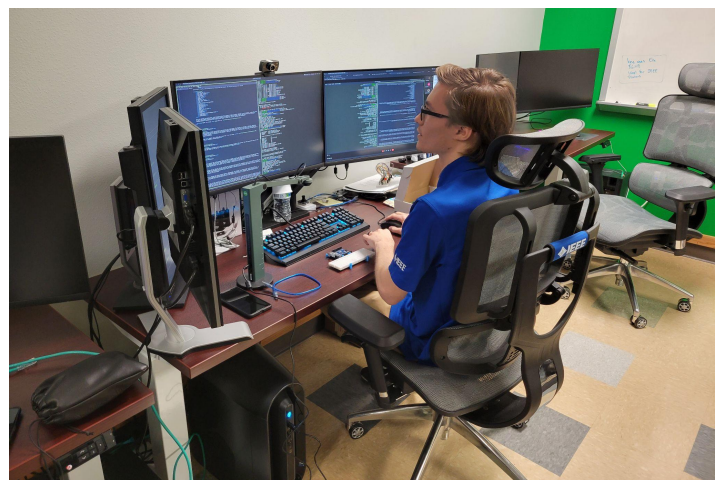# Table of Contents

Service

Lambda Zeta members are dedicated to helping bring forth opportunities that aim to advance fellow students towards their goals and aspirations. Our chapter actively seeks out ways to better our local community. Throughout the year we focused on serving our UNT community along with our local community.

This year's activities included fundraisers for our IEEE societies, Future Innovator's Workshop (STEM Outreach), the Research Showcase, Recitations, Study Halls, advising, and multiple workshops.

Future Innovator's Workshop

The Future Innovators Workshop (FIW) is a series of free workshops targeting K-12 students of varying skill levels with the primary goal of expanding the electronics and programming knowledge of participants through instructional sessions and hands on circuit building. The Fall 2021 FIW was held virtually over 5 sessions on November 13-14th for more than 120 participants around the USA. During each session, HKN Lambda Zeta students provided step by step instructions and electrical theory to complete projects of multiple difficulties. The sessions followed the HKN Lambda Zeta student created FIW Handbook, freely available to the public via the IEEE UNT website, and utilized components curated in the provided 117 piece FIW kit.

EE/CE/CS Research Showcase

For the first time ever, the Lambda Zeta Chapter hosted the EE/CE/CS Research Showcase. The chapter invited all research professors of the University of Texas' Electrical Engineering, Computer Engineering, and Computer Science departments to participate in an open house, in which they opened their labs to the public. Students and faculty could wander about the engineering campus and go to any lab they wanted to learn about to talk to current students working in the labs and the overseeing professors. Participants were all given refreshments, maps, and an opportunity to win prizes should they visit each and every lab. A custom web interface was developed by the membership using QR codes to track each participant creating a incredibly interactive event!
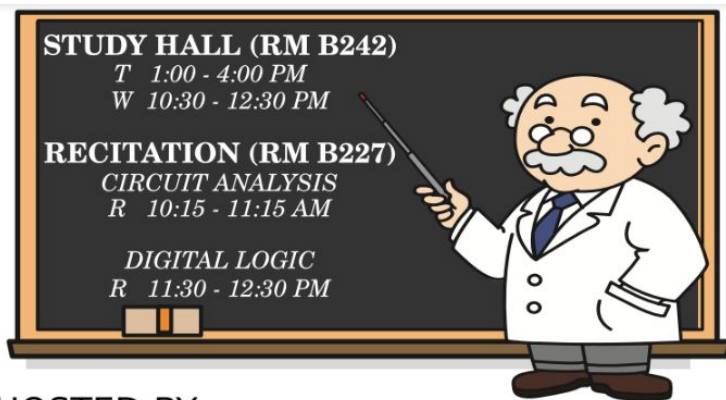
Game Changers Fundraiser

HKN Lambda Zeta and IEEE UNT members organized a fundraiser with proceeds contributed to the future innovators workshops. Students, faculty, and staff of UNT as well as local alumni came to support our efforts while enjoying food and arcade games!
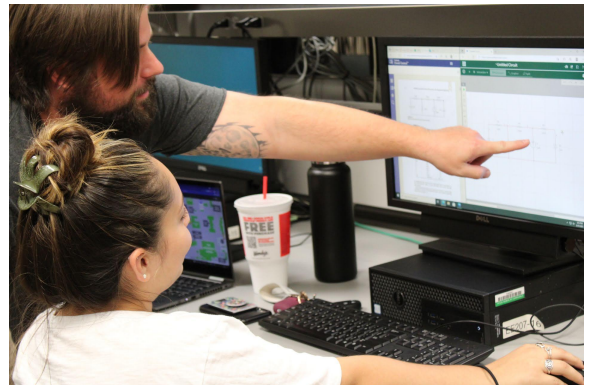
Recitation & Study Halls

Dedicated Lambda Zeta officers and members facilitated weekly hour-long virtual supplementary classes on the following topics: Digital Logic, Circuit Analysis, and Electronics. Every week students were welcome to drop in to further their comprehension of the course material.

HKN Lambda Zeta Chapter and the IEEE UNT Student Branch collaborated to facilitate a learning environment where students could drop in to work on assignments and consolidate their understanding. Study halls were hosted twice a week.

Introduction to Python

IEEE UNT Computer Society in joint effort with Lambda Zeta and the IEEE UNT Student Branch hosted the Python introductory workshop. The event was open to all and fostered connections to future HKN members.
The Python workshop covered installation, syntax, datatypes, input/output, libraries, and references

Intro to Python Workshop

Thursday 10/28, 2021 @ 5:30pm

B217 or online at

meet.google.com/sao-firy-oph

PLEASE BRING YOUR LAPTOP

Food and drinks provided!

IEEE COMPUTER SOCIETY
University of North Texas
Student Branch Chapter

Introduction to Python

IEEE UNT Computer Society

IEEE UNT
Advancing Technology for Humanity | COLLEGE OF ENGINEERING

October 28, 2021

Introduction to Git

HKN Lambda Zeta Chapter and the IEE UNT Computer Society collaborated to teach fellow students about Git. Topics included: introduction to Git basics such as branches, issues and pull requests.

INTRODUCTION TO

git

THURSDAY, OCTOBER 21, 2021 | 5:30 PM

B217 OR ONLINE AT

https://meet.google.com/fwb-afkc-ozw

PLEASE BRING YOUR LAPTOP

WHY LEARN GIT?

- SHOW OFF YOUR PERSONAL AND SCHOOL PROJECTS

- USE VERSION CONTROL TO SAFELY AND EASILY MANAGE PROJECTS

- IMPRESS FUTURE EMPLOYERS

IEEE COMPUTER SOCIETY

University of North Texas
Student Branch Chapter

Infineon PSoC6 Workshop

Working with the IEEE UNT Student Branch, Lambda Zeta hosted Infineon who gave a technical talk about their PSoC6 microcontroller, walked through three different labs. Infineon graciously let participants keep their PSoC6 kit at the end of the workshop.
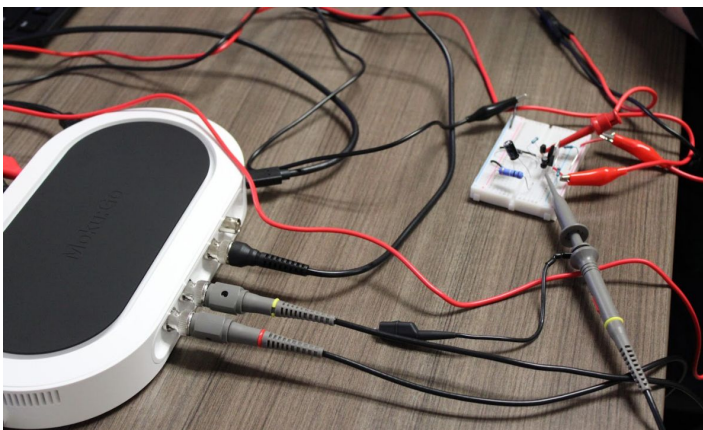
Liquid Instruments Workshop - Moku:Go

Liquid Instruments, a designer of integrated instruments, recently released a kit called the Moku:Go. Two engineers from LI came to UNT's engineering campus to do a live demonstration of the kits which also served as a circuit building workshop.

Using a DC-DC cell phone charging design, students got to use the function generating, oscilloscope, and power supplying features of the Moku:Go. Students from all disciplines were invited to join one of two sessions, with lunch provided between them by Liquid Instruments.

Professional Development

A goal of Eta Kappa Nu Lambda Zeta Chapter is to provide useful and interesting professional development opportunities to the student community at the University of North Texas. We welcome all students to participate!

This year's activities included many technical and career related talks during North Tech-SAS, LaTeX and Resume Review Workshops, and industry guest speakers.

North Tech-SAS 2022

IEEE North Tech-SAS Summit Schedule

MONDAY, FEBRUARY 21

8:00-9:00pm	Dr. Xiao-Ping Zhang	
	Signal Processing Path to Nobel Prize in Economics – Risk, Correlation, Causality and Predictive Analytics in Big Data	

TUESDAY, FEBRUARY 22

WEDNESDAY, FEBRUARY 23

5:30-6:30pm	Cynthia A. Chestek, PhD	
	Neural Interfaces for Controlling Finger Movements	

THURSDAY, FEBRUARY 24

5:30-7:00pm	Professor Latifur Khan	
	Big Data Stream Analytics And Its Applications	

FRIDAY, FEBRUARY 25

10:00-11:30am	Professor Pier Luigi Dragotti	
	Computational Imaging for Art investigation and for Neuroscience	

SATURDAY, APRIL 16

Time	Event	Location
11:00am	Company Check In	UNT Discovery Park K Wing Hallway
11:30am	Check In	UNT Discovery Park K Wing Hallway
12:00pm	Welcome Address presented by Dr. Hanchen Huang and Dr. Shengli Fu	UNT Discovery Park K150
12:30	Dr. Homa Nikbakht	UNT Discovery Park K150
	An Information-Theoretic View of Mixed-Delay Traffic in 5G and 6G	
1:30pm	Mark Carpenter	UNT Discovery Park K150
	Challenges and opportunities in electrical transmission and distribution companies	
3:00pm	Networking Opportunity and Refreshments	UNT Discovery Park K Wing Hallway
3:30pm	Kamesh Namuduri	UNT Discovery Park K150
	Air-Tracks: Highways in the Airspace	
4:30pm	Networking Opportunity and Refreshments	UNT Discovery Park K Wing Hallway
5:00pm	Award Ceremony	UNT Discovery Park K150

All times are in Central Standard Time (GMT-6).

North Tech-SAS 2022 held during engineers week ran from 2/21-2/26. Events were held each day of the week, consisting of hour long talks by IEEE Fellow Xiao-Ping Zhang, Pier Luigi Dragotti, and Latifur Khan, and IEEE Member Cynthia Chestek on a range of technical and professional topics. During this week the Lambda Zeta Chapter hosted the annual student poster competition that awards prizes to the top undergraduate and graduate posters with participants from around the world. An additional in-person day was held 4/16 where IEEE Fellow Mark Carpenter, IEEE Senior Member Kamesh Namuduri, and IEEE Member Homa Nikbakht gave their own technical and professional talks. The final event of the in-person day was the culminating awards reception where IEEE UNT and HKN Lambda Zeta recognizes distinguished and exceptional individuals, as well as the winners from the student poster competition.

North Tech-SAS 2022

The Lambda Zeta Chapter hosted the annual student poster competition that awards prizes to the top undergraduate and graduate research, featuring participants from around the globe. The final event of the week is the culminating awards reception where IEEE UNT and HKN Lambda Zeta recognizes distinguished and exceptional individuals.

North Tech-SAS
Hybrid Engineers Week 2022

Monday, Feb 21	Wednesday, Feb 23	Thursday, Feb 24	Friday, Feb 25
Dr. Xiao-Ping Zhang	*Cynthia A. Chestek,PhD*	*Professor Latifur Khan*	*Professor Pier Luigi Dragotti*
Signal Processing Path to Nobel Prize in Economics – Risk, Correlation, Causality and Predictive Analytics in Big Data	Neural Interfaces for Controlling Finger Movements	Big Data Stream Analytics And Its Applications	Computational Imaging for Art investigation and for Neuroscience

North Tech-SAS 2022
In person and live stream

North Tech-SAS EVENT SCHEDULE

Company Check-In 11:00AM

Check-In 11:30AM

Welcome Address 12:00PM
Dr. Hanchen Huang
Dean of Engineering UNT

Dr. Shengli Fu
EE Department Chair UNT

Dr. Homa Nikbakht 12:30PM
An Information Theoretic View
of Mixed-Delay Traffic in 5G and 6G

Mark Carpenter 1:30PM
Challenges and Opportunites
in Electrical Transmission
and Distribution Companies

Network Break 3:00PM

Dr. Kamesh Namuduri 3:30PM
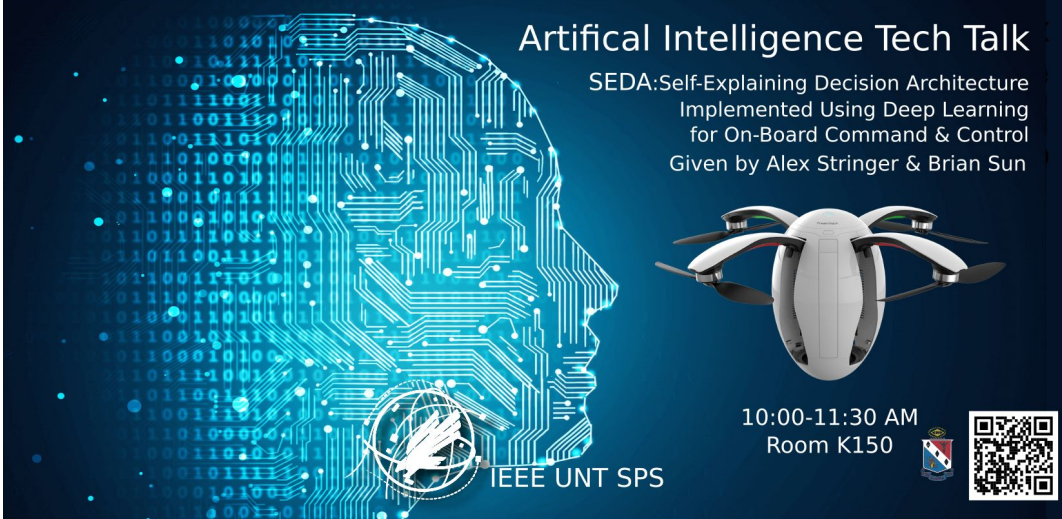Air-Tracks: Highways in the Airspace

Awards 5:00PM

ONCOR · LIQUID INSTRUMENTS · WOW PACKING · IEEE Fort Worth Section

TestEquity · MOUSER ELECTRONICS · UNT ELECTRICAL

North Tech-SAS 2022
In person and live stream

Technical Speaker: Interpretable AI

LaTeX Workshop

Every semester HKN and the IEEE Student Branch host a workshop to give students an opportunity to learn LaTeX. The introductory subject matter focuses on the task of creating a professional resume, with tips and tricks shared by our more senior members. The event is always scheduled a few weeks before the UNT career fair, giving ample time for participants to work through the process as needed.

Resume Workshop
Date : Feb 9, 2022
Time: 5:30pm - 7:30pm
Room: B227

Resume Review Workshop

HKN Lambda Zeta co-hosts the bi-annual industry resume review panel with the IEEE UNT Student Branch. Local industry professionals counsel students on resumes, interviews, and careers, giving our students a distinct advantage. Many of our participants have gotten internships and full time positions from to this event.

Industry Resume Review

WEDNESDAY, February 16
ROOM M201
6:30PM-8:30PM
Professionals from DFW Area

Social

The Lambda Zeta Chapter held many events that engaged our members and fellow students. These events offered our members a respite from school and a fun way to get to know each other.

This year's activities included many events like Founder's Day, IEEE Day, Pop-Up Rallies and Recruitment Meetings.

Eta Kappa Nu Founder's Day

In the Lambda Zeta Chapter, it has become a tradition to honor the founders of Eta Kappa Nu with an induction and a retrospective look at our hard work over the last year. This year was also the 10th anniversary of the Lambda Zeta Chapter, we took the chance to reflect on the last 10 years with our alumni.

IEEE Day 2022

IEEE SHIRT SALE
SHOW YOUR TRUE COLORS ON IEEE DAY (OCT 5TH)

Front   Back

Wear this shirt on IEEE Day for a chance to win prizes

PRE-ORDER FORM

$10 - IEEE MEMBERS
$12 - NON-MEMBERS (PRE-ORDER)
$15 - NON-MEMBERS

To Celebrate IEEE Day this year our Lambda Zeta membership worked with all of the IEEE UNT students to throw a party with IEEE blue cupcakes. A t-shirt was sold to raise funds for events such as FIW and NTSAS.

Additionally, a slide show was created to highlight some of the many most inspiring local IEEE professional member with which we regularly interact.

The event was a great time to take a time out midday and catch up with IEEE members from around campus that we don't get to see often.

The future of Lambda Zeta is insured through the leadership experiences in the IEEE UNT Branch and we are grateful to be IEEE Eta Kappa Nu.

Recruitment &
Pop-Up Rallies Events
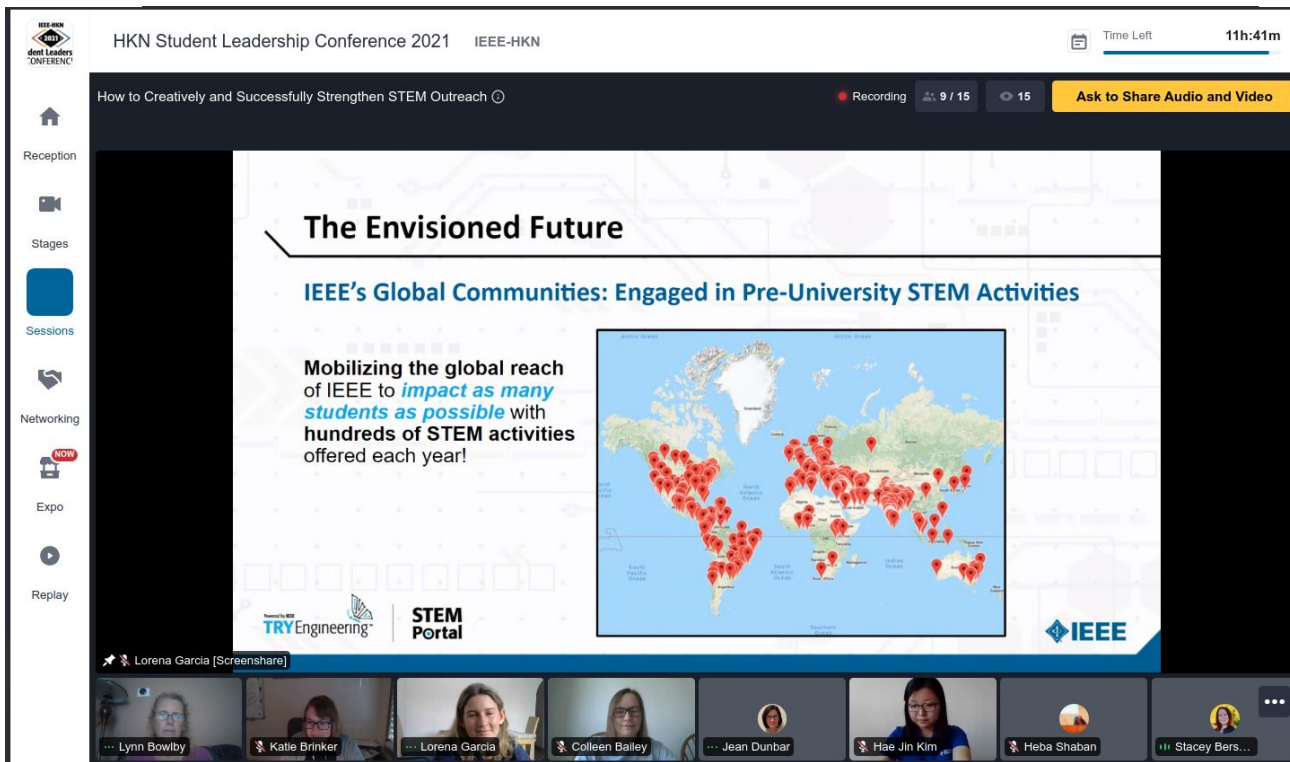
Official Business

General Meetings

Our Eta Kappa Nu chapter held a number of meetings throughout the past year allowing the entire membership of the Lambda Zeta to meet, plan events, finalize candidates for induction and hold officer elections. This year many of the meetings were held in a hybrid manner increasing attendance of our members who could not attend in person. The multitude of successful events can only be made possible by the continued involvement of all of our members, achievements as documented in this report are a testament to the membership as a whole.

Officer Meetings

The regular progression of HKN business requires immense amounts of planning to carry out events at the scale we have come to expect for our chapter, to meet these requirements the leadership holds weekly meeting of all the officers and advisors as well as many small group sessions to work through the semester and year ahead.

HKN SLC 2021

Much of our membership took part in HKN SLC 2021, having a wonderful time learning and contributing!
Lambda Zeta leadership past and present gathered together to celebrate
at the awards
reception.

Induction
Fall 2021

Inductees

Ideal Ademaj	Mark Albert	Ivian Alexander
Jose Arreguin Martinez	Hutcheson Cheyne	Martin Cruz-Vazquez
Ram Dantu	Kobe Edmond	Julian Garcia-Hernadnez
Dylan Gulledge	Clayton Hinson	Samir Khanal
Aidan Kurz	Hongrui Lin	Hung Luyen
Lyle Newman	Jared Riley	Travis Roberts
Humberto Romero	Emilio Rios	Zachery Rumfield
Pallav Kumar Sah	Alec Singletary	King Man Siu
Robert Thomas	Hồng Sơn Vũ	

Induction Spring 2022

Inductees

Christopher Cooper | Matthew Dawn | Arbin Fera

Jasmine Goodwin | Jaya Sravani Mandapaka | Thomas Mather

Homa Nikbakht

Officers

Fall 2021 - Spring 2022

President
Garrett Cayce

Vice President
Miguel Rivera

Treasurer
Nicholas Chiapputo

Corresponding Secretary
Aliana Rosario De Los Santos

Recording Secretary
John Lucas Welch

HKN Hours

Event	Hours
Oscar Garcia Room Cleaning	12
Executive and General Meetings	317
Game Changers Fundraiser	130
Liquid Instruments Workshop - Moku:Go	110
EE/CE/CS Research Showcase	105
Infineon PSoC6 Workshop	50
HKN SLC	130
Git Workshop	45
HKN Founders' Day: School Party	65
Fall Induction/Lambda Zeta 10th Anniversary/Founders' Day	291
Future Innovators Workshop	170
Technical Speaker: Interpretable AI	60
Python Workshop	50
North Tech-SAS 2022	1750
Spring Induction and Officer Installment	270

HKN Hours

Event	Hours
Recruitment Events and Pop-Up Rallies	584
LaTeX Workshop	100
Resume Review: Industry Professionals	270
Recitation	392
Study Hall	843
Outstanding Student Award Submission	15
TOTAL HKN HOURS	5759