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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.
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.
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
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, 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 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

<table>
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<td><strong>Dr. Xiao-Ping Zhang</strong></td>
<td><strong>Cynthia A. Chestek, PhD</strong></td>
<td><strong>Professor Latifur Khan</strong></td>
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<td>Neural Interfaces for Controlling Finger Movements</td>
<td>Big Data Stream Analytics And Its Applications</td>
<td>Computational Imaging for Art investigation and for Neuroscience</td>
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![Dr. Xiao-Ping Zhang](image1.png)
![Cynthia A. Chestek, PhD](image2.png)
![Professor Latifur Khan](image3.png)
![Professor Pier Luigi Dragotti](image4.png)
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 Opportunities in Electrical Transmission and Distribution Companies
Network Break 3:00PM
Dr. Kamesh Namuduri 3:30PM
  Air-Tracks: Highways in the Airspace
Awards 5:00PM
North Tech-SAS 2022
In person and live stream
Technical Speaker: Interpretable AI

Artificial Intelligence Tech Talk
SEDA: Self-Explaining Decision Architecture
Implemented Using Deep Learning for On-Board Command & Control
Given by Alex Stringer & Brian Sun

10:00-11:30 AM
Room K150

IEEE UNT SPS
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 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 this event.
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.
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
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.
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
Jose Arreguin Martinez
Ram Dantu
Dylan Gulledge
Aidan Kurz
Lyle Newman
Humberto Romero
Pallav Kumar Sah
Robert Thomas

Mark Albert
Hutcheson Cheyne
Kobe Edmond
Clayton Hinson
Hongrui Lin
Jared Riley
Emilio Rios
Alec Singletary
Hong Son Vu

Ivian Alexander
Martin Cruz-Vazquez
Julian Garcia-Hernandez
Samir Khanal
Hung Luyen
Travis Roberts
Zachery Rumfield
King Man Siu
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

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<td>Game Changers Fundraiser</td>
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<td>Liquid Instruments Workshop - Moku:Go</td>
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<td>EE/CE/CS Research Showcase</td>
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## HKN Hours

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<td>Resume Review: Industry Professionals</td>
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