



Connection Creation Metrics Report
May 4th, 2023

For

U.S. Department of Energy Collegiate Wind Competition
2023

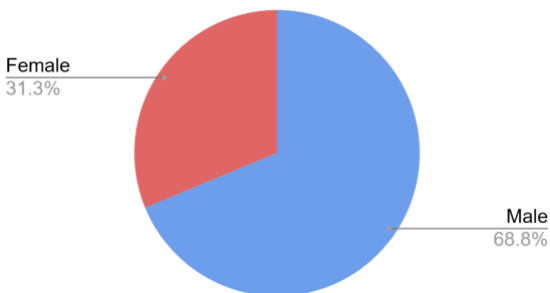
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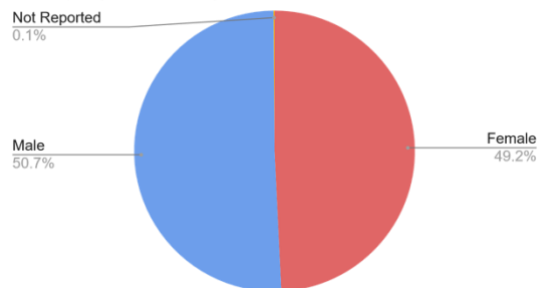
Team Breakdown and Recruitment

The Techsan Wind team maintained 16 members throughout the academic year with individuals joining and resigning in that time. Team members joined because of incentives such as project experience and resume building. Team members likely resigned because of scheduling conflicts. Our team is composed of a diverse group of individuals from many backgrounds and university majors; additionally, the team was composed of members from Texas Tech university (TTU) and South Plains College (SPC). The gender and ethnic diversity percentages are lower than the university's however multiple groups are still represented. Below are graphics showing the diversity of the Techsan Wind team and the Texas Tech undergraduate and South Plains Community college student body.

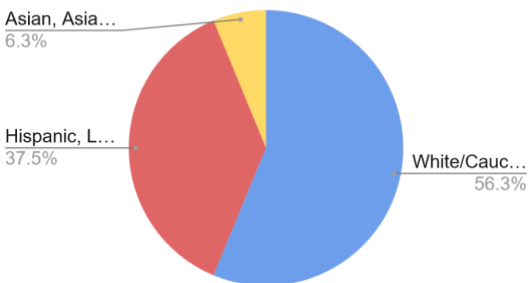
Techsan Wind Count of Gender



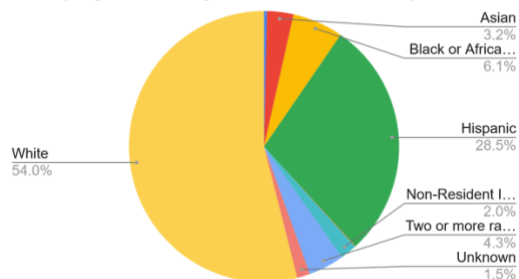
TTU Spring 2023 Undergraduate Count of Gender



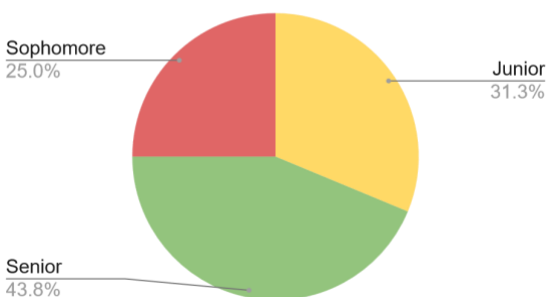
Techsan Wind Count of Ethnicity



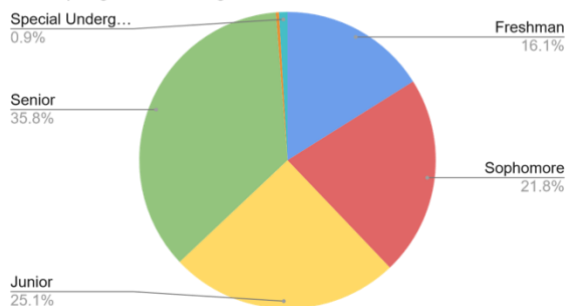
TTU Spring 2023 Undergraduate Count of Ethnicity

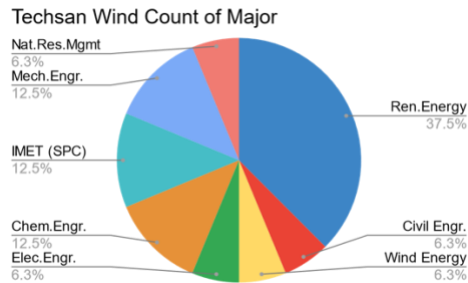


Techsan Wind Count of Classification



TTU Spring 2023 Undergraduate Count of Classification

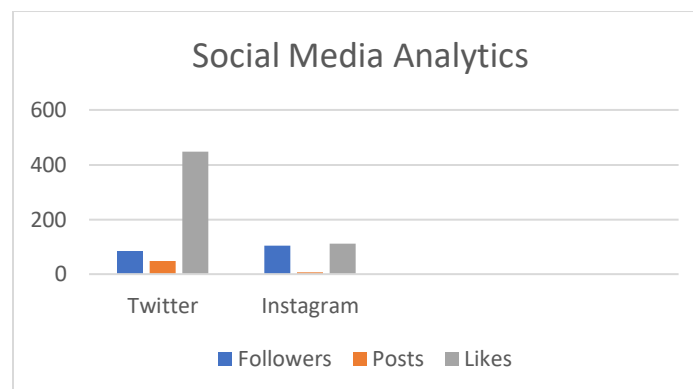




The team originally planned to recruit using on-campus events and social media outreach to increase interest. While these strategies worked to an extent, the number of team members remained stagnant throughout the year and were not effective in increasing the number of members on the team. The members that were gained from these recruitment strategies became invaluable members of the team and had a great impact on the structure and ability of the team.

Social Media

The Techsan Wind Team had a small but substantial social media platform from last year's competition, and they wanted to foster those account's growth while also allocating resources towards developing new accounts on different platforms. A major setback the team discovered was not having access to last year's Facebook login credentials. This led the team to reevaluate where they wanted to spend their time and resources in terms of social media. The connections division assessed that efforts to rebuild a Facebook page following would be better spent on creating an account on a new platform that students usually spend more time on. Therefore, the team decided to permanently deactivate the Facebook account and create an Instagram account instead. The team, however, was given access to the past year's Twitter account and thought it wise to maintain that following and promote its growth. The end of year metrics are as follows:



Each of these accounts maintained a small but steady incremental growth in following, averaging about 5 a month, but received their biggest surge in post engagement when university social media profiles would promote the team's activities and accounts. The collaboration with the Texas Tech Renewable Energy Department's social media manager proved extremely

successful. These university accounts would repost our content and provide double the engagement rate percentages we were previously averaging. In addition, the team capitalized on the diverse nature of the student's majors. Members of the connections team are students in the Engineering college and would encourage their peers to promote and engage with our content serving as a recruitment strategy and promote post engagement. The team found that the posts regarding "student" highlights were the most popular, and will make note to continue showing our team members outside of their work in the future.

Interview Attendance

Interview attendance varied based on timing and the team's availability. For the team's first two interviews, occurring right before the alumni tailgate, with Ian Watkins and Connor Wilkenson, four members of the team were able to attend, the latter of these two not making it into the four required interviews since they both work in similar sectors of the wind industry. The team's next interview, with Jim Kiles, occurred with a majority of the team in attendance. Due to scheduling constraints, only members of the connections team were able to attend the team's last three interviews. To make up for the low attendance at these interviews, the members who were able to attend the interviews spoke about the interview and what they learned at subsequent team meetings. On average, the team maintained a 30% attendance rate at the interviews.

The interviewees informed us about the wind energy industry from an experienced professional's perspective. The team learned about the multidisciplinary nature of this industry and were particularly encouraged to note that we could contribute to the workforce regardless of our educational backgrounds.

Event Outreach

The team participated in a series of events over the past year to achieve their goal of promoting the importance and relevance of wind energy to K-12 students in the area. Techsan Wind designed their event selection to engage with students of both a younger and university audience. Therefore, they used their university connections to participate in events that would encourage Techsan Wind Team recruitment and local STEM organizations designed to foster interest in science at young ages to achieve their goal. Below is a list of events the Techsan Wind Team both attended and hosted attached with a brief description of each event.

1. **LISD College and Career Fair:** This was an event held to encourage students attending local high school students to attend Texas Tech University. Techsan Wind collaborated with the Renewable Energy Department to hold a booth that provided information on the team and major in RE. Students gave personal anecdotes on their time in the program and encouraged high school students to join once they started college.
 - a. **Team Attendance: 5**
 - b. **Event Attendance: 100**
2. **TTU Preview Day:** Similar to the college and career fair, the event encouraged incoming TTU students to pursue the RE major and joining the CWC Techsan Wind Team.
 - a. **Team Attendance: 3**

- b. Event Attendance: 100**
- 3. **Family STEM Night TTU:** Family STEM night was hosted on TTU campus for all families of the Lubbock community with K-12 students. They were encouraged to stop by to encourage their children to take an interest in the sciences. Techsan Wind held a booth where they helped kids make “paper cup anemometers” to help children understand wind speed and its importance to wind energy.
 - a. Team Attendance: 3**
 - b. Event Attendance: 120**
- 4. **Alumni Tailgate:** The alumni tailgate was hosted by the Texas Tech Renewable Energy Department where students and alumni of this major were invited to make industry connections and learn about the wind energy field. Many Techsan Wind Team members study under this major and with this the team was able to conduct two interviews for the competition.
 - a. Team Attendance: 8**
 - b. Event Attendance: 30**
- 5. **Ramirez STEM Event:** Hosted at a local elementary school, students of Ramirez were encouraged to explore the presented STEM activities while their science fair was being hosted. Techsan Wind again helped kids with the paper anemometer craft activity.
 - a. Team Attendance: 4**
 - b. Event Attendance: 150**
- 6. **Wolfbots Zoom Event:** This event was held by the Techsan Wind Team on TTU Campus. A robotics team located in San Antonio reached out to the team, hoping to have a few energy storage questions solved. This inspired the Techsan Wind Team to host a zoom event with all parties to introduce wind energy to the children, explain what the CWC competition is to encourage their future participation, and answer their questions.
 - a. Team Attendance: 15**
 - b. Event Attendance: 20**
- 7. **Stem Core Event:** This was an event hosted by the university STEM outreach program. The Techsan Wind Team held “sessions” of the paper anemometer activity and hosted a trivia session on wind energy.
 - a. Team Attendance: 2**
 - b. Event Attendance: 40**
- 8. **Ranch Day:** This event was our largest of the year. Held by the National Ranching Heritage Center, all of the Lubbock community was encouraged to stop by and learn about the aspects of ranch life. The Techsan Wind Team held a booth labelled “Ranch Science” where we used our anemometer craft to educate children on how knowing wind speed is important in ranch life and how wind energy can be a part of ranching in the future.
 - a. Team Attendance: 5**
 - b. Event Attendance: 500**

Each of these events not only served as an outreach event, but as a team building exercise. The Techsan Wind Team members spent time together as well as bringing knowledge of wind energy to the community. Future connections for outreach events were also made, and Techsan Wind looks forward to continuing their part in the STEM community.