BITS AND BYTES

COLLEGE OF SCIENCE AND TECHNOLOGY

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CST meets Denkar's Getaway

College of Science and Technology organized a program for the students to be known to the world of hardship and passion on a bleak morning of 30th July (Saturday) 2022, in Teamwork Hall from 10 AM to 12 PM. The College invited The Denkar's Getaway, a traveller and blogger that explores and shows every nook and corner of our country.

The speaker of the program was Ms. Tshering Denkar, a 'Mediapreneur' who followed her passion for travelling, meeting new faces, places and making moments when life would have been a simple one with her Master's degree. She invested in her call to follow her passion and achieved heights she never thought she would.

During the session, Ms. Tshering Denkar talked about how working hard clears your path towards your goal. She also mentioned having decent self-respect for oneself before downing yourself with disgrace. Her confidence and the way she presented herself left everyone awed and she said that confidence is needed to persuade others. She also gave an example of graduates who, like herself decided to take on their world by pursuing their actual area of interest and working towards it. Creating opportunities is in our hands, on how much we want it and how much we work for it. She shared the problems she faced and her active life on social

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media. She shared about time management and being productive each minute. She was so punctual that she presented her slides by keeping track of the time she was given and taking.

Ms. Tshering Denkar believes that gender does not obstruct a person from working hard. She has a good relationship with her parents, her sister, and her colleagues which shows us as audience the significance of good relations too. She ended her presentation with a short question and answer session.

The talk session was followed by her book signing, as she is also the author of recently published book 'The Tourist Within,' where her five years of The Denkar's Getaway experiences are shared. She also donated two of her books to the college and the program ended with a gracious speech by our Literary Counsellor.

Overall, having Ms. Tshering Denkar was a good start to the semester for all of us, and students were delighted and inspired for their journeys ahead.

Opening Football Match

As a warm welcome to the new students who joined CST in the Autumn Semester 2022, an event traditionally coordinated in the college every year, a Welcome Football Match was held on 29th July 2022, 4:00 pm at the CST football ground.

As per traditions, it was a friendly and fair match between the first and final years of CST. All the students and staff were invited to witness this match, and many did appear despite the scorching heat of Phuentsholing. As per the program list, the game started between the first-year and the final-year girls. Neither did the already experienced final year team go easy on the first years nor did the first-year team hold back on the final years. Despite that, experience and knowledge always remained superior hence the final year girls' team stood victorious in this match.

Followed by the girl's match, the most awaited match between the first-year and the final-year boys commenced. Compared to the steady and calm aura left behind by the girl's match, the boy's match started with an energetic and ambitious vibe. Like the girl's match, both sides would not let either team win easily. With talented and experienced individuals on both teams, the crowd actively participated and responded very positively to the match and the commentary made by the MC. Even though the first years didn't get disheartened and persevered till the end of the game, the final years stood victorious again and lived up to the expectations of all last years in the crowd.

And with that, the welcome match for this year officially ended, and the audience returned with delight on their faces. Many responded to this match positively and were looking forward to other matches that'll be held in the future. Even if the score decides the winner, according to the audience, in their heart both teams had won the match in their way hence concluding the event successfully.

Fablab Inauguration

On August 25, 2022, Ministry of Labour and Human Resources Minister Karma Dorji inaugurated the FabLab in CST within the premises of the College of Science and Technology. A FabLab (Fabrication Laboratory) is a small-scale workshop that offers digital fabrication. Professor Neil Gershenfeld, the head of MIT's Center of Bits and Atoms is credited for coming up with the idea.

With the opening of the FabLab in CST with assistance from JICA, MoLHR Minister, Karma Dorji expressed that students from CST and other institutions now have access to the facility to turn their ideas into functional prototypes. His Excellency stressed that the opening of the FabLab at CST offers a chance to establish an innovation culture, develop technology, and create solutions, particularly in bringing innovation over agricultural production to assist farmers by coming up with designs for creating agricultural tools and resolving local problems. Additionally, not just in agricultural sectors but also in other ones, such as water pumping and educational facilities in the education system starting from CST.

His Excellency believes the establishment of FabLab may aid in resolving national concerns and can serve to steer the talents of the workforce and improve skills in the country. His Excellency stated that all of this may occur from the appropriate institution, which is CST; therefore, he expressed hope for future innovations. CST FabLab is a joint project between the College of Science and Technology (CST) under RUB, the Gross National Happiness Commission (GNHC) under RGoB, and the Japan international cooperation agency. The CST FabLab was established with commitment and dedication to the 5Rs: Refuse, Reduce, Reuse, Repurpose and Recycle. The FabLab targets the

students and faculties of the CST and others of the Royal University of Bhutan, Bhutanese Entrepreneurs and Digital Fabricators, Secondary Industries in Bhutan, and the Agriculture Sector.

The CST FabLab provides access to 9 digital fabrication equipment to turn ideas into reality for emerging entrepreneurs and anybody intrigued and ready to develop prototypes that include:

- Large (or Shopbot) and Small CNC Machine - 2
- Digital Embroidery Machine -1
- Straight Sewing Machine -1
- Interlocking Sewing Machine -1
- SLA 3D Printer with CWS1S (for preprinting, curing, and washing)
- FDM 3D Printers - 3
- Vinyl Cutter - 1
- CNC Milling Machine -1
- Laser Cutter – 1

To introduce the FabLab digital fabrication technology, the trained lecturers and lab technicians demonstrated and operated machines in the presence of the guests and many stakeholders. The program also featured six cultural performances by various student groups from CST.

Home Ministers Visit

On the evening of 19th August, 2022, Honorable Home Minister Lyonpo Ugyen Dorji graced the college campus. During his visit, His Excellency took time to discuss various topics ranging from his struggle for education to his experience as the youngest minister in Bhutan. During his audience to the 3rd and final year students at the team work hall, he gave everyone an opportunity to ask questions which he answered individually.

Some questions included concerns about people opting to leave for Australia over working in the country. To this, he gave his honest and thoughtful opinion on how it may be the best option for some people but graduates like us; he believed that we are capable of achieving more than just blue-collar jobs abroad. He urged us to consider our options and explore avenues where we can earn enough while serving the country.

Another question from one of the students was about how the Bhutanese culture and tradition seem to be degrading over time. His excellency pointed out that we are merely changing and

adapting with the change in time; he stated that with the provisions in place in education sectors, our culture is safe and secure. He did however iterate that it is up to us to take this matter seriously and to make sure that our identity continues to live within us.

Finally, he highlighted how it has been a difficult couple of years because of the pandemic and how much we have lost in terms of economic growth. But rather than just relying on the government to do something about it, he said that His Majesty the King as well as the government seeks support from capable young minds of tomorrow to help redirect the country into new avenues.

Interview with Mr. Koji Yamada, a Senior Facilitator, and FAB Instructor at CST FABLAB.

1. **How have you been able to adapt to Bhutan and especially CST? What are some challenges you have faced that you have overcome as you continue to stay in Bhutan? (Food, Weather, Culture, Language). What is your favourite thing about Bhutan so far?**

   CST FABLAB is the second assignment I'm heading in Bhutan; the first project had me situated in Thimphu under JICA from 2016 to 2019. Given the number of years, I have been able to adapt to the food and the people are hospitable; with the help of some friends, I have even learned how to wear Gho It is, however, difficult for me to adapt to the humidity and temperature of Phuentsholing. Sometimes communication is difficult as not everyone is fluent in English, and it is difficult to convey messages.

2. **Does the collaboration between CST and the FABLAB network make FABLAB CST, unlike other FABLABs? Can you feel and draw a comparison between a FABLAB built in partnership with a college like ours and other FABLABS that function independently?**

   Independent fablabs are created based on the initiatives of private engineers who are interested in the field of digital fabrication and engineering. Many veterans have invested a lot of money in equipment's they purchase, and as they retire, they open up their resources to help the community learn. A fab lab attached to a public entity such as a college has an easier time functioning, and its survival is more favorable. Regarding CST FABLAB, the students here are already aware of coding and electronic circuit design; however, FABLAB brings about learning opportunities in the field of 3D modelling and machine operation, which adds value to their engineering degree. Furthermore, the strong links that CST FABLAB has with FABLABS in Japan and India, create a reliable network that could help create a productive learning experience for students with support from the countries mentioned above.

3. **As of now, what is the motivation that drives students toward using the FABLAB? Is it based on a hobby or mostly academics?**

   It's early to comment on that; however, I have observed that most students seem curious to learn from the instructors. However, I would like to emphasize that FABLAB is an environment where students are to learn things by doing them themselves. I encourage students to adapt to this new dynamic of being a student as well as a teacher to their peers as they gain experience by testing out the various machines present in the FABLAB.

4. **How can students look to use the FABLAB CST after they have graduated? Is there any difference?**

   There aren't any set conditions for the graduates from CST coming back to the CST FABLAB and using its facilities, but of course, they will be able to avail the facilities here. One advantage of gaining skills from FABLAB is that you will be able to access any of the FABLABs throughout the globe and carry out similar activities without having to learn anything new, as most machines in all the FABLABs are identical. The terms and conditions for using FABLABs and its facilities may vary from place to place. Still, the user experience is the same throughout, so students graduating from CST can use their knowledge in digital fabrication globally.

5. **Do you think that a curriculum that specifies the function and use of FABLAB is something that would draw more attention and innovation in the use of FABLAB? Or do you believe these familiarization sessions in small batches are more effective?**

   The current concern with the CST FABLAB is its utilization. As all students are engaged in classes until 4 pm, the FABLAB is underutilized during this period. One potential solution could be for the faculty members to use the training center in the FABLAB for their practical or tutorial sessions. The faculty members must be sensitized in parallel with the students.

   To try to integrate FABLAB into the curriculum would take time; however, it is definitely our ultimate goal to make it a reality. Some universities in Japan have introduced courses based on digital fabrication, which is a sign of how impactful FABLAB can prove to be in the area of education.

6. **Are there plans for innovative competitions to help the students be more motivated toward using the FABLAB more effectively?**

   It may be a bit too early to mention this, but we have been communicating with the CST tech incubation center to host CSTs' first makeathon, which would be an open innovation event. The participants could use the machines present at the CST FABLAB to create prototypes that could

help solve various problems. This could be an opportunity for students to display their digital fabrication skills.

7. **How will FABLAB CST look to attain self-sustainability?**

   As of yet, the use of FABLAB for college-related purposes such as final year projects could be done in a way where the college bears the cost of the machine and material usage. Further, we will have to look for funding opportunities from various organizations to be able to sustain without any external aid. We could look to learn from how JICA operates its projects independently from one another and does it while being sustainable. We also welcome any revenue-making activities during the idle time when the college is not using the FABLAB.

8. **Are any new interesting resources coming into the FABLAB that we can look forward to?**

   It seems to be very early to discuss this issue now, but we are aware that CST FABLAB lacks the metalwork section and its related facilities. As students explore more fabrication technologies, we are expecting feedback from them in terms of what is needed to improve the use of FABLAB further.

9. **Do you see an area where students from our college could use the FABLAB CST to solve problems within the community and country?**

   Yes, the ECE department is working with JICA experts to create a prototype for the waste management system. Similarly, other projects are currently in the pipeline and being discussed, which could be applied in Phuentsholing and other cities of the country. FABLAB could also be used to help specially-abled children such that the devices are fabricated by keeping in mind that individual's unique needs. The students could take similar initiatives whereby CST FABLAB would be more than happy to facilitate their progress in the field of their research to help communities.

*** The interview is available on CST NDLD Facebook page as a podcast. ***

Python And AI technology In Civil Engineering

Learning is a continuous process. To keep at par with the emerging technologies, the in-house python training was conducted from 19-21 May 2022. The training was coordinated by Dr. Sangey Pasang, Programme Leader, Civil Department and resourced by Mr. Karma Wangchuk, an associate lecturer, Information Technology Department. In addition to Civil Department participants, other faculty members and non-teaching staff from different departments attended the 3-day training.

The first day of training started with an overview of program execution in the Jupyter notebook editor followed by an introduction to the basic syntax of Python programming. Furthermore, variable

declaration, recognition of keywords, built-in data types, flow control statements, and functions were explained in detail to establish the fundamentals of programming.

On the second day, the object-oriented programming concept was explained followed by basic steps of data analysis using Pandas and NumPy. The participants learned the fundamentals of the data wrangling process. On the third day, participants could carry out basic statistical analysis using the built-in functions such as df.info (), df.describe(), etc. Moreover, participants learned different techniques used for plotting graphs and were able to plot various graphs using the dataset.

The training was based on hands-on learning and teaching pedagogy. The participants were given Jupyter notebooks to implement concepts and methods learned in the theory classes. Moreover, online quizzes using Kahoot were conducted to engage and test participants. The winners were awarded prizes.

The in-house python training was concluded with awarding of certificates to participants and the group photo session. The participants expressed their achievements and satisfaction. In CST's official WhatsApp group, Mr. Tshering Tobgay, Lecturer, CED provided testimony, "Congratulation for such a wonderful fundamental python exemplary training conducted by Mr. Karma Wangchuk under coordination by HoD Civil and Programme Leader CED. We all enjoyed the course and we would love to have similar courses ahead. Kindly continue it in the future for the benefit of the College and society. Mr. Karma Wangchuk was an excellent tutor expressed by all participants la". Furthermore, participants requested resourced person to conduct advanced data analysis in the future.

Similarly, on 20th August 2022, Mr. Tshering Tobgay, Lecturer, Civil Department coordinated a seminar for Final Year Civil Engineering students on various topics. The two speakers were from Information Technology Department, Mr. Manoj Chhetri and Mr. Karma Wangchuk who presented on Blockchain, Cryptocurrency, Machine Learning, and Image Processing respectively. The students learned Blockchain applications and types of cryptocurrencies in the market. In addition, the machine learning pipeline was explained followed by image processing techniques and applications. Students showed great enthusiasm and asked several pertinent questions. They were excited and happy. Some of the students from Civil Engineering are implementing Machine Learning in their Final Year Projects.

Blood Donation Camp

On 30th July 2022, the College of Science and Technology, in collaboration with India House, organized a blood donation camp. The number of participants that showed up for the event was commendable, totaling up to 103 participants, which included the staff and students from CST and a few faculties from India house. The campaign started with donations made by Consul General, India House, followed by the President of CST. All the volunteers were enthusiastic and eager to do something for the community.

For most of the student volunteers, it was their first time donating; they shared that it was very nerve-wracking. The programme concluded with a collection of 62 packets donated to the blood bank, Phuntsholing Hospital. Such an event not only does it promote the practice of good health but also encourages people to get together and do something good collectively.

Ypeer Sensitization

YPEER CST conducted a sensitization program for the Autumn semester of 2022 on 6th August 2022 with support from Y-PEER Bhutan, Department of Youth and Sports, MoE. Conventionally, the sensitization program is conducted exclusively for YPEER members. However, we felt the need to create awareness regarding YPEER, its mandates, and relevant topics for all first-year students at college. There were a total of 239 participants and eight facilitators facilitating the program. Due to the large number of students, our team decided to sensitize in groups wherein each facilitator presented their share of content to a group of students and moved to the next session.

Students were divided into five groups based on their course.

The sensitization focused on "edutainment" as a mode of delivery with a content presentation and fun energizers to keep the students actively participating.

Topics presented:

- ✓ **A brief introduction to YPEER and ABCD**

Shreya Chhetri and Yoezer Dema presented the history of formulating YPEER as a club and its importance in society. They also talked about Abstinence, Being faithful, Contraception usage, and Disposal. Yoezer Dema also spoke about how being a member of YPEER helped her land herself an exchange scholarship to Sweden. It was followed by active engagement of participants in the energizer "side to side.

- ✓ **Gender-Based Violence**

Cheki Wangmo and Bhuwan Sharma presented on Gender-Based Violence and its prevalence in our country. They highlighted how GBV cases are not reported due to social stigmatization. The session was made fun and interactive by doing the "winni" energizer.

- ✓ **Established centers to seek help from**

Srawan Pradhan presented some of our country's centers that help the young key population of Bhutan, such as AFHS, NCWC, RENEW, and Youth center. He explained the services provided by them and their contact details. A confidence-building session was conducted by performing the "watermelon" energizer.

- ✓ **Menstruation and menstrual products**

Ngawang Dolma presented menstruation in teenage girls and menstrual products such as sanitary napkins, cups, and tampons. It was also informative to the boys, which enabled them to respect the girls owing to what they go through. She also highlighted the importance of maintaining hygiene and disposal of used menstrual products. The silence was broken by performing the "mango, banana, apple" energizer.

- ✓ **Teenage pregnancy**

Sonam Youden presented on teenage pregnancy and its complications. She highlighted centers to approach to seek help in cases of teenage pregnancy. She mentioned how vulnerable we are to such issues and the need to become extra cautious. She entertained the students with the "sticky waffle" energizer.

✓ **Sexual rights and reproductive health**

Prerna Chhetri presented on SRHR and discussed the importance of knowing about our bodies and their rights. She also talked about family planning as everyone would engage themselves in family building at some point in time. She also made the session enjoyable by engaging students in the "seven up" energizer.

Students were also asked to write down their key takeaways from the session in small notepads and later pasted them on charts for everyone to view. At the end of the program, refreshment was served and then dispersed.

Cleaning Campaign

On August 19, 2022, 5 minutes past 2 o'clock, a large group of students from the College of Science and Technology led by the Student Service Officer, Mr. Inchu Dorji, and the student body councilors volunteered for the mass cleaning campaign. The whole campaign lasted for three long hours covering areas from the town to towards Rinchending check post.

The students split into two groups of 60 to 70 students. They walked to their respective destinations with sacks to carry the waste and a heart of responsibility. The first group moved towards the town from the College of Science and Technology campus. They encountered a lot of garbage as those areas were more populated than the others. The second group moved towards the check post, where wastes were disposed.

The students picked the papers, plastics, pet bottles, and a lot more unrecognizable junk, which some conspicuous minds may say are toxic wastes thrown on the sides of the long roads of Phuentsholing. With laughter and joy, the students cleaned the highways to create a living environment for all sentient beings. On that specific day, I could witness so many people and their love for nature as they battled the heat and trash beside the road. It was a very fulfilling experience for all the participants.

Business Idea Competition

CST-Tech Incubation Centre, in collaboration with the Dean of Research and Industrial Linkages (DRIL) office, organized the Business Idea Competition on 21st August 2022. The Judging Panel consisted of; Dr. Cheki Dorji (President), Mr. Yoichi Kogure (Senior Consultant at Japan Development Service, specializing in ICT), Mr. Sangay Thinley (Dy. Chief Economic Development Officer, Chhukha Dzongkhag), and Mr. Nima Dukpa (Asst.Professor).

Mr. Koji Yamada FabLab CST Project Chief Advisor, addressed the participants on the topic "What development partners can/can't do for you" highlighting the opportunities arising from geographical proximity to a JICA project and debunking myths regarding JICA and its functions. Mr. Sangay's session on the "Youth Entrepreneurship and skilling initiatives of Chhukha Dzongkhag" emphasized the importance of mentorship and being proactive while highlighting the possibility of future collaboration with the college. Eleven teams consisting of 47 students were shortlisted through the workshop on the 13th of August and then pitched their ideas in front of the Judging Panel. The winners were awarded a cash prize of Nu.10000, Nu. 7000 and Nu. 5000 respectively. All of the participants were awarded Certificates of Participation. The program concluded with a vote of thanks delivered by the Research Officer. This program highlights the importance of innovation in the field of engineering while promoting the ability to pitch an idea which is an essential skill to make any idea flourish.

The winners of the competition were:

Snail Tech: App for thrift shopping

Synchro-vators: Automatic Lighting Control System

Team Rikmay: Using cannabis to produce fiber/construction materials

The Excitement of Being a Young Entrepreneur

CST-Tech Incubation Centre, in collaboration with the DRIL office organized a business idea competition on 21st August 2022. The competition was organized to promote entrepreneurial mindset of students and provide opportunities to start their businesses. The event was divided into three phases. The first phase was training on how to pitch ideas and methods to write business proposals. The second phase was actual pitching of the ideas and final phase was the incubation of the selected ideas.

The training was held on 13th August 2022 followed by pitching the ideas by twenty other teams. Our team, snail tech, was led by myself with four additional members. We were excited to pitch our business idea, Jurwa, which would create a platform for people to buy and sell second hand products and reuse them by developing an app.

The idea was developed based on my experience when I wanted to sell my second-hand mobile phone and realized our country did not have a platform to sell used products other than Facebook or Instagram. After this incident one of my team members and I created a page on Instagram to check whether people were interested in buying and selling products through our web page. To our surprise we were able to get about three hundred followers in a week and about two to three customers daily. We were happy with the response and decided to participate in the competition with three other members with information technology backgrounds as our business idea was tech based.

We pitched our idea to the judges within three minutes. Twelve teams, including ours, were selected for the second round of the business pitching competition on 21st August 2022 with judging panel members from different divisions other than our college faculty members. During the second idea pitching competition, our team worked till 4 a.m. to prepare the presentation. Our team was tense and anxious about the pitching as our business idea could be easily replicated by other people. Despite the fear, we presented our business idea to the judges, but to our surprise, we won the competition and were awarded certificates and cash prize of ngultrum ten thousand.

We were delighted to be rewarded for our hard work. This has encouraged us to work even harder to achieve our dream of establishing Jurwa and bringing change to the country. Today our team is working on our business proposal to CST-Tech Incubation Centre. After submitting our proposal, we will be accepted as incubates of the center and develop our business idea to become young entrepreneurs of the nation and serve the country with utmost dedication.

Therefore, I on behalf of my team would like to thank CST-Tech Incubation Center for organizing such event without which our business idea would have been a failure. I would also like to thank Ms. Karma Yangdon for her guidance in making this article a success.

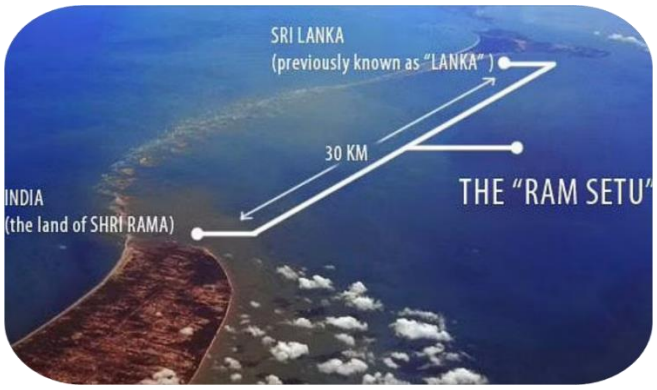
Introduction To Bridges: Guest Lecture

On 3rd August 2022, through the coordination of programme leader Dr. Sangey Passang we had a guest lecture on introduction to bridges by Arun Kumar Gupta, 2Ic, Dantak. He is one of the most exemplary employees carrying adverse expertise in highways, geotechnical, and bridges. As a geotechnical engineer, he worked in Dantak in the year 2021. Before that, he had worked in a border road company since 1995.

His talks mainly focused on the bridge's history, components, types of bridges (based on function, materials used, length of span, superstructure, support system), investigation before construction, load and stress on the bridges and bridge failure

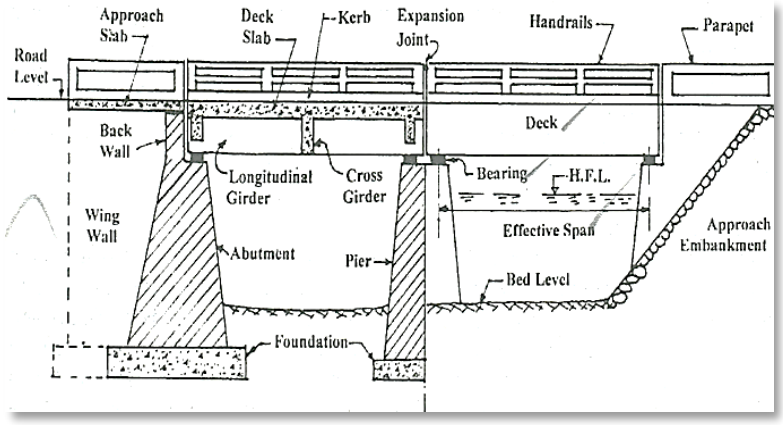
History

Ram Setu bridge having a length of 30 km connecting Sheri Rama of India and Sri Lanka, was considered the oldest bridge (more than 10000 years) in the world.



Roman people were great Civil engineers who constructed arch-shaped bridges. Arch bridges were preferred in the olden days as they had zero moments over the arch, making them meant only for compression force. Thus, it is the most prominent and strong bridge structure with materials like timber and stone. Regarding the construction of bridges, China and Turkey were the two most advanced countries in terms of technology.

Component of bridge



The basic bridge components were deck, bearing, girder, Abutment, pier, expansion joint, and Approach slab. The highest flood level is the most important parameter for bridge construction to determine the girder height from ground level. Graphene is a family of carbon widely used in western countries as a building material.

Load and stress

Tacoma bridge is the best example to illustrate the importance of wind load in bridge construction. Based on the designer, the load combination was made as per its experience (wind, live, dead, earthquake, snow load, etc.) and had Codal provision too.

Bridge Failure

A team from Guwahati (India) said that the collapse of Damchhu bridge was due to a lack of geotechnical investigation and the occurrence of frequent earthquakes. Similarly, the failure of Pasakha bridge was due to improper connections found during loads testing.

Take Away

It was an opportunity to attend an informative event for a person interested in such a field. The event was interactive since many students' curiosity was clarified, and they obtained clues regarding bridges. Our responsibility as civil engineers are to design and construct safe and sustainable structures during development phases in the future. I feel particularly inspired and want to explore more about such a profession. I am anticipating such an event in the future.

Engineering, NFTs And Entrepreneurship

On the 6th of August 2022, we held the zoom meeting on Creativity, Entrepreneurship, Media Literacy, and Opportunities from 10:00 AM to 11:20 AM, Mr. Kushap Kaflay. He was an alumnus of the College of Science and Technology who completed his Bachelor's degree in Civil Engineering in 2017 and pursued his Master's degree in Australia. Currently, he is working as a Civil Engineer at one of the top international construction firms in Brisbane, Australia.

Mr. Kushap shares his life experiences after graduating from CST, from being unemployed for about six months to finally being employed as a Site Engineer in a private firm in Thimphu with a monthly salary of Nu. 20,000, which was not at all sufficient for his expenses. Therefore, he took up a side hustle of photography and video editing, from which he earned Nu.10,000 for a regular event and Nu.40,000 in case of a wedding event. He has experience creating three short movies during his stay at college and taking up various start-up proposals such as Bundle. bt and Miniature Bhutan. In addition, he fully utilized the accessible internet facility at college hostels for mining bitcoins.

For a world advancing more on the digital side, investing in cryptocurrencies such as Bitcoin and NFT has become a necessity because it is the easiest way to earn money and a reliable long-term asset since the value of cryptocurrencies rises. However, some risks must be taken on investment. It has become necessary to have basic knowledge of Information Technology, especially for the technical personnel. By having this knowledge, we could also increase the opportunity to be recruited in the job market and create jobs for artists with unique works to sell. Mr. Kushap has used NFT to sell art by Bhutanese artists through digitization, and his work is a unique collaboration between technical and artistic individuals.

Apart from NFT and Cryptocurrency, Mr. Kushap also highlighted to the audience the scenario of a Civil Engineering career in an international market and its differences from Bhutan's Construction Practices. Students were curious about NFT mostly and asked various questions to which Mr.Kushap clearly stated additional interesting facts and the challenges faced while taking up such entrepreneurship.

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