



An Undertaking of Bhaktapur Municipality

Khwopa Engineering College

Affiliated to Purbanchal University

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NEWSLETTER

National Conference on Trends in Architecture: Promoting Heritage Conservation and Sustainable Architecture in Nepal



Chief guest, Sunil Prajapati, Mayor of Bhaktapur Municipality, and the chairman of the college management committee, inaugurating the 2nd NCTA - Nepal 2023.

8th Baisakha

On Friday, 8 Baisakh 2080, Khwopa Engineering College and Khwopa College



of Engineering jointly organized a one-day national conference titled the "2nd National Conference on Trends in Architecture-Nepal: NCTA-Nepal 2023." The conference was held to commemorate World Heritage Day and was inaugurated by Sunil Prajapati, Mayor of Bhaktapur Municipality and

Chairman of the colleges, torching the by Panas.

During his speech at the inauguration, Mr. Prajapati expressed his best wishes for the grand success of the conference and emphasized that the colleges, which are undertaken by Bhaktapur Municipality, are committed to conducting national and international conferences on different topics, focusing on research and



publication. He stressed the importance of conserving heritage structures, which are



invaluable assets from our ancestors to humankind worldwide. He also explained the conservation works that the Bhaktapur municipality is conducting and how they are benefiting tourists from all over the world who visit such heritage sites.

Architect Rajani Joshi, Deputy Mayor of Bhaktapur Municipality, provided keynote speech at the conference. She shared her experiences regarding the conservation works on heritage structures after the devastating Gorkha earthquake of 2015 and highlighted the opportunities and challenges faced during reconstruction and renovation works on world heritage structures. She also explained the conservation of intangible heritage and focused on how the Bhaktapur Municipality is taking the book entitled "Bhaktapur after Century" by Com. Rohit, Chairman of NWPP, as a guiding book in every

development work.

Er. Sujan Maka, Principal of Khwopa Engineering College, and Er. Sunil Duwal, Principal of Khwopa College of Engineering, addressed the conference and highlighted the objectives of organizing the conference. They expressed their gratitude to all the stakeholders who made the conference a grand success.

In the conference, presenters representing academia, researchers, practitioners, policy-makers, and others presented 14 papers in total. More than 100 participants from various fields attended the conference, which focused on various aspects of architecture, such as sustainable architecture, conservation of heritage structures, modern architecture, urban planning, etc.

The conference provided a platform for the participants to share their experiences, knowledge, and ideas and focused on promoting sustainable architecture and conserving heritage structures. The conference helped raise awareness about the importance of preserving heritage structures and promoting sustainable architecture. It was successful in achieving its objective of promoting trends in architecture in Nepal.



Talk Program on the Occasion of the 134th International Workers Day



Chief guest, Central Secretary of the Nepal Workers and Peasants Party and Federal Member of Parliament, Mr. Prem Suwal along with Deputy Mayor of Bhaktapur Municipality and Vice Chair of College Management Committee, Rajani Joshi and principal of Khwopa Engineering College and Khwopa College of Engineering.

18th Baisakha

On the occasion of the 134th International Workers Day, a talk program was held on Baisakh 18, 2080. The program was jointly



organized by Khwopa Engineering College, Khwopa College of Engineering, and Khwopa Polytechnic Institute, run by the Bhaktapur Municipality. The chief guest of the program was a Central Secretary of the Nepal Workers and Peasants Party and Federal Member of Parliament, Prem Suwal, who warned intellectuals to be aware that the agents of the capitalist class can enter the labor movement and cause great damage to the movement. He also discussed that capitalism makes doctors, engineers, etc., workers. He made it clear that opportunism is a capitalist idea within

the working class, but he said that socialism is a political system that benefits the general public.

He expressed the opinion that there is no justification for the major and emerging political parties of the country that do not speak out and oppose the issues of the country's sovereignty and border security, including the unequal treaty of 1950, the Gorkha Recruitment Center, the MCC, the SPP, and the Citizenship Bill. Also, while stating that lessons should be learned from past labor movements, he pointed out the need to move forward by following socialist ideas as agent provocateurs can enter



the movements.

He also discussed the fact that 111 MPs of the House of Representatives currently have

their houses in Kathmandu. Being MPs and Ministers only for the Commission, Ministers are synonymous with corrupt people who



embezzle billions of dollars. Discussing that the number of people facing criminal and criminal charges in Parliament is increasing, he also affirmed that the members of Parliament have encroached on public land. He said that the ruling parties that came to power due to the greed of the commission destroyed government institutions and privatized billions of assets. He pointed out the need to open factories and universities in the country rather than the 5 billion fast track brought by the greed of the commission.

In the program, Deputy Mayor of Bhaktapur Municipality and Vice Chair of College Management Committee Rajani Joshi discussed the importance of May Day and highlighted the work done by Bhaktapur Municipality in various sectors such as education, health, and heritage conservation and mentioned the recognition



received as the Khwopa Model even though it is a small municipality. She said that according to the Election Manifesto of the Nepal Workers and Peasants Party and the concept of the book "Bhaktapur after a Century," written by Com.

Rohit, Bhaktapur Municipality is progressing forward.

She said that in Bhaktapur, the development of education, health, preservation of tangible and intangible heritages, etc. will be made a tourist destination, the city will be declared a cultural city, Khwopa University will be established, and it will be a center of knowledge.

In the program, the principal of Khwopa Engineering College, Er. Sujan Maka, said that the work is being done to overshadow the original meaning of International Worker's Day in capitalist countries and discussed that the intellectuals are also on the side of the capitalists and the working class.

In the program, the principal of Khwopa



College of Engineering, Er. Sunil Duwal discussed the background of the international labor movement and, expressed that during the COVID-19 pandemic, the wages of the workers in large companies in the United States of America increased only by 2 to 5 percent, but the profit of the shareholders increased by many folds. The capitalists were waging wars in different countries to increase their profit by selling weapons as well as in the name of humanitarian aid.

In this program, Khwopa Engineering College Civil Engineering Department Er. Amit Shankar Ranjit gave a presentation on "Labor Movement and May Day in the United States"; and Ganga Keshari Koju, a teacher at Khwopa Polytechnic Institute, gave a presentation on "Diabetes Mellitus". During the program, Rajan Jati also expressed his thoughts.

Talk Program Organized to Mark Gorkha Earthquake 2015

12th Baisakha

On Baisakh 12, 2080, a talk program was jointly organized by Khwopa Engineering College (KhEC) and Khwopa College of Engineering (KhCE), the undertaking of Bhaktapur Municipality, to mark the sixth anniversary of the Gorkha Earthquake 2015. The program was well attended by students, faculty and staff members, and guests from different sectors.

The Chief Guest for the event was Prem Suwal, Member of Parliament and Secretary of Nepal Workers and Peasants' Party. In his address, MP Suwal emphasized the need for balanced development of the country and the importance of developing small towns outside the Kathmandu valley. He also highlighted the risks associated with haphazard development of Kathmandu, which could increase the risk of damage from future disasters, especially from seismic hazard. He stressed the importance of well-planned cities with adequate open spaces to reduce such risks.

Regarding contemporary issues, Suwal stressed the need for the government of Nepal to provide sufficient jobs to the youth within the nation to prevent them from serving as cheap labor in foreign lands. He also emphasized the need

for the nation to focus on self-dependence and reduce reliance on remittances.

The Chairman of the program, Sunil Prajapati, Mayor of Bhaktapur Municipality, and Chairman of the colleges, emphasized the importance of learning from the Gorkha Earthquake 2015. He highlighted the contributions made by both colleges before, during, and after the earthquake, including reconstruction and renovation of heritage structures damaged by the earthquake. The colleges have also been actively involved in conducting various academic exercises regarding the earthquake through research and publications. They have also organized national and international conferences regarding earthquake and post-disaster reconstruction.

Er. Sujana Maska, Principal of Khwopa Engineering College, and Er. Sunil Duwal, Principal of Khwopa College of Engineering, shed light on the planning for the following days and the jobs done by both colleges. Arch. Subik Kumar Shrestha (PhD), Er. Roshan Prajapati, and Er. Shubham Pyakurel (ME Earthquake Students and Research Assistants) provided a slide presentation on different issues regarding earthquake disaster study.



Chief guest, Prem Suwal Central Secretary of the Nepal Workers and Peasants Party and Federal Member of Parliament.



Chairmen of the program, Sunil Prajapati Mayor of Bhaktapur Municipality, and Chairman of the both colleges.

Faculty Training on Drone Surveying and Mapping

7th Baisakha

The Department of Civil Engineering organized 3-days' training on Drone Mapping



and Surveying from 5th to 7th Baisakh, 2080 for the college faculties.

The training on Drone Mapping and Surveying was aimed at providing comprehensive information on using a drone/UAV device for engineering survey. The main objectives of the training were to introduce to participants

the principles and fundamentals of drone surveying and mapping; train participants on planning of a drone survey mission, including flight paths, altitudes, and camera settings; provide hands-on practice on flying drones and collecting data; provide hands-on practice on processing of the captured data on image processing software and web-based platform; guide participants for different forms of outputs obtained from image processing platform and their use in engineering as well. The training was focused on providing faculties with practical skills (with hands on data capturing and processing sessions) and preparing them for responsible and compliant use of this technology in their academic endeavors. The training was conducted by lecturer Er. Bibek Thapa and Senior Lecturer Er. Ramesh Bala.

Khwopa Engineering College Students Win "Best Project Idea" at the 7th National FPGA Competition

9th Baisakha

On April 22nd, 2023, the 7th National FPGA competition was held in Nepal, jointly organized by LogicTronix and Digitronix Nepal. This yearly event, which has been running since 2016, invites students from various colleges to exhibit their projects and ideas based on FPGA.

A team of students from Khwopa Engineering College, including Avishek Luitel, Manita Dangol, Prasanna Dahal, and Rajan Shrestha, participated in the competition and achieved the "Best Project Idea" title for their project, "Adaptive Traffic Light Control System." The team was awarded a cash prize of Rs. 15,000 for

their innovative and practical project. Their project is about controlling traffic



Figure 14 Calculation of density of vehicle in two lane using Pre-trained Model

lights using deep learning, which could help in controlling traffic congestion.

Architecture Students' Education Excursion to Pelunga Village.

9th Baisakha

A group of 16 Students', B.Arch recently completed a 5-day educational excursion as part of their Vernacular Architecture elective course. The excursion took place from 12th Baisakh, 2080 to 16th Baisakh, 2080, and was led by Senior Lecturer Ar. Archana Bade Shrestha and Ar. Sushamna Shrestha.

The students visited Pelunga Village in Thumki, Rupa Gaunpalika, Kaski, which is located about 30 minutes (by bus) east of Rupakot Resort. In the village, the students explored the oval-shaped dwellings known as "Ghumaune Ghar," which are typical of the Brahmin/Chettri community in the area. The students conducted research

in the village, including a questionnaire survey, measurements of the oval houses, drone survey, and visual mapping.

The excursion also included visits to Rupakot Resort in Pokhara and Annapurna Orphan Home. The orphan home is an example of construction using bamboo and locally made bricks, which are produced on site. The excursion provided students with a valuable hands-on learning experience in vernacular architecture and allowed them to witness firsthand the construction techniques and materials used in the local community.

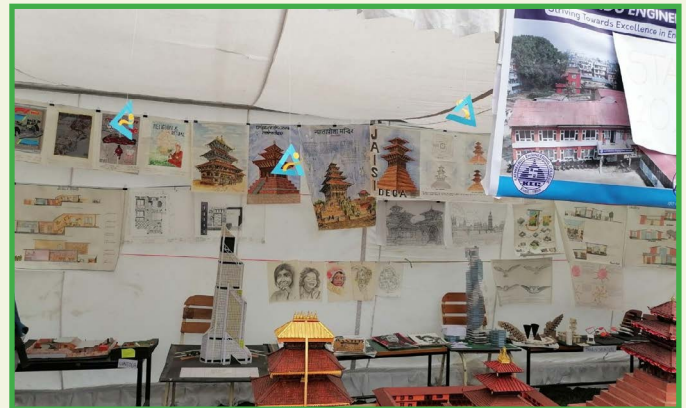


KhEC Emerges at Winner at KUARC Architectural Exhibition!

14th Baisakha

Kathmandu University Architecture Students' Club (KUARC) organized an architectural exhibition and an inter-college stall design competition in the university premises, Dhulikhel on 27th April, 2023, in which six colleges including KhEC participated. In the stalls, outstanding works (models, drawings and sketches) of the students were on display. The winner was selected on the

basis of voting by the visitors. Among the stalls, the stall of Khwopa Engineering College received the highest number of votes (162 out of 377), and hence, was announced the winner. The models made by 74 Batch and 75 Batch students on the occasion of earthquake day, last year, were displayed at our college's stall.



Students of Architecture 8th and 4th Semester Visited Taragaon Culture Center and Museum

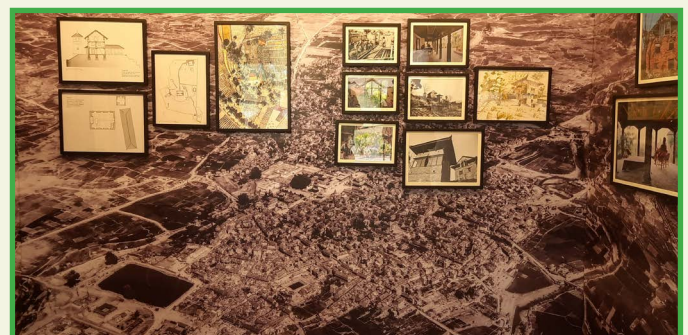
19th Baisakha

On 19th, 25th and 26th Baisakh 2080 B.S, first semester (Group A) students, eighth semester students and fourth semester students of Architecture visited Taragaon Culture Center and Museum with their respective teachers. The accompanying faculty were Rashish Lal Shrestha with the first semester students, Prof.Dr. Mohan Moorti Pant, Krishna Gopal Prajapati and Rashish Lal Shrestha with the Eighth semester students, and Ar.Sunaina Karmacharya with the fourth semester students.

The main purpose of the visit was to experience the excellent landscape and site-planning of the museum complex (designed by eminent architect Carl Pruscha), learn about the exposed Brick Architecture and Brick Barrel Vault Roof System, a part of the

Building Construction course. Students also got an opportunity to observe the exhibitions, themed on Nepal's Cultural heritage.

The exhibition display includes works of Niel Gutshow, Kevin Burbriski, Wolfgang Korn etc. It was also pleasure and encouragement for the students to observe the displayed works of Chimang Settlement, Mustang District. In this project, faculty and students of Department of Architecture of Khwopa Engineering College, led by Dr. Mohan Moorti Pant, were involved.





Talk Program on the Occasion of Buddha Jayanti

21st Baisakha

Khwopa Engineering College and Khwopa College of Engineering held a



presentation on the occasion of Buddha Jayanti on May 4, 2023. The library section of both colleges organized the event, which was held in Hall 2 of the college. The presentation was given by Yogesh Bajracharya, a faculty member of the Electronics and Communication Department, who focused on the spiritual journey of Buddha

and the fundamental tenets of Buddhism. During the presentation, Er. Bajracharya discussed the Three Jewels, Four Noble Truths, and Panchasil. He also talked about the three major schools of Buddhism, Theravada, Mahayana, and Vajrayana, and their basic introduction and differences. Mr. Bajracharya particularly emphasized the importance of Vajrayana in Nepal and the role of Bajracharyas of Kathmandu Valley in promoting and preserving the Buddhist culture and traditions. Er. Sunil Duwal, Principal of Khwopa College of Engineering, gave remarks encouraging the audience to explore Buddhism further. He also related Buddhism with Marxism for a better understanding of oneself and the world. Mr. Duwal focused on the teaching methodologies of Buddha and emphasized them to be followed.

Department of Civil Engineering Organizes Field Visit to Jure and Melamchi, Sindhupalchowk

23rd Baisakha

The Department of Civil Engineering, Khwopa Engineering College, organized a field visit for its students with Bio-engineering elective students to Jure and Melamchi, Sindhupalchowk on 23rd Baisakh 2080. The purpose of the field visit was to observe and study the impacts of natural disasters, such as the Jure landslide in 2014 and the Melamchi flood in 2021, and to understand the various factors that contribute to such disasters.

The eight semester students, who were from the 2075 Batch, eighth semester, gained first-hand knowledge and insights into the challenges faced by the local communities affected by such disasters. Additionally, they were interested in studying engineering solutions used to mitigate the impacts of the Jure landslide and Melamchi flooding area and prevent future disasters.

At the Jure landslide area, which is approximately 85km from Kathmandu, the students observed the aftermath of the Jure landslide that occurred in 2014. They saw the constructed debris flow channel to channelize the debris and mitigate the risk of future landslides. The toe wall structures were still under construction, but sufficient vegetation had been grown at the toe of the slope. The debris material from the toe was transferred to the landslide dam area. The students noted that the inflow and outflow of the Sunkoshi river was equal, indicating that there was no impounding water and no damming. The Sunkoshi river blockage side was completely controlled, and there was no further risk. The Jure landslide side was also stable, with debris flow channelization work done. Although there may be the possibility of rockfall, a sufficient barrier structure at the road side was not

present. However, the road was relocated and was strong.

The students then visited the Melamchi flood areas, which were even more devastating. They observed the massive debris and destruction caused by the flood, which had covered a large area, including houses that were located in the middle of it and were completely useless. The students witnessed the struggles of the locals in rebuilding their lives and the efforts of various stakeholders in providing relief and support.

It was observed that there was a need for better flood preparedness measures and infrastructure in the area to prevent future disasters. The students gained valuable insights into the challenges and opportunities for bioengineering applications in landslide



and flooding sites.

Overall, the field visit was a great learning experience for the elective students. They gained first-hand knowledge of the impact of natural disasters and the importance of engineering solutions in mitigating and preventing future disasters. They also witnessed the challenges faced by the local communities affected by such disasters and gained an appreciation for the importance of disaster preparedness measures.

Field Visit on Sanitary Engineering

27th Baisakha

The field visit to Guheswori Wastewater Treatment Plant (Kathmandu) was organized by the Department of Civil Engineering on 26th and 27th of Baisakh 2080 for the students of sixth semester 2076 Batch under the co-curricular activity of Sanitary Engineering subject. The objective of the field visit was to observe the components and

treatment processes of the wastewater treatment plant and to gain additional knowledge on the subject matter. At the site, the students observed the entire process of wastewater treatment and components, such as collection chamber, intake structure, grit chamber, aeration unit, secondary clarifier and so on. The visit was led by Senior Lecturer Er. Razim Ganesh.



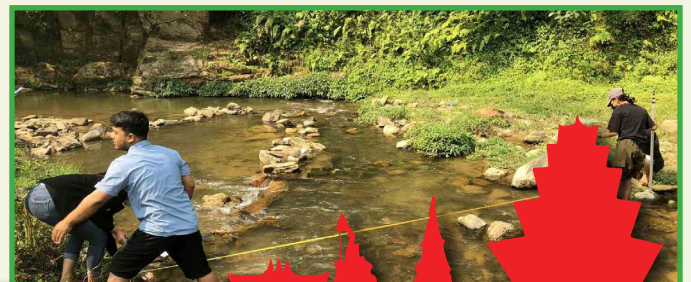
Khwopa Engineering College Students Gain Hands-On Experience in Hydrological Data Measurement Through Field Work in Panauti

27th Baisakha

The Department of Civil Engineering at Khwopa Engineering College organized a field work on the 31st of Baisakh for the students of the 4th semester, 2077 Batch. The field work was a co-curricular activity for the Engineering Hydrology subject and took place in Panauti, Kavrepalanchowk. The primary objective of the field work was to help the students visualize and apply the theoretical knowledge they had gained during the course. The focus of the field work was on hydrological data measurement, specifically the discharge measurement of Roshi river in Panauti using different methods, as studied in the course syllabus. The students were divided into 12 groups and assigned to three different tasks. The first task

involved measuring the discharge of Roshi Khola by velocity area method using a current meter, while the second task required the use of the floating method. The third task involved the salt dilution method. All of the groups were able to successfully complete their tasks.

Er. Shyam Sundar Basukala, Er. Rajesh Khatakho, Er. Anusha Danegulu, Er. Rashmi Kharbuja, Er. Supriya Shrestha, and lab assistant Amar Karmacharya led the field work. The students were given the opportunity to apply the knowledge they had gained in class to real-world situations and obtain hands-on experience in the field. The field work was considered a valuable and enriching experience for the students, who were able to gain practical knowledge about hydrological data measurement.



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