



An Undertaking of Bhaktapur Municipality

Khwopa Engineering College

Affiliated to Purbanchal University

BAISAKH 2079

ISSUE 1

NEWSLETTER

Editorial

First and foremost, we take this opportunity to extend our best wishes to all on the auspicious occasion of "New Year - 2079 B.S." and "Biska Jatra". This is our pleasure to announce the resumption of newsletter of Khwopa Engineering College by launching online Newsletter with this issue at the advent of 2079 B.S. Publishing newsletter in a regular manner, we believe, is essential to any communication strategy of an academic institution. Therefore, it is expected that such an activity in the college would help to expedite to reach the goals and to accomplish the objectives set at the time of inception of the college. For smooth continuation of online publication of this college newsletter, timely contribution of its stakeholders is always important and sought for to hasten the procedure taken for every issue in future. Finally, your feedback and suggestions are ever expected for its further promotion.

Khwopa Engineering College

One Day Model Exhibition

7th Chaitra

Khwopa Engineering College, an undertaking of Bhaktapur Municipality, organized one day model exhibition on 7th Chaitra 2078. Vice-Principal Er. Rabintra Phoju inaugurated the exhibition.

Seven models based on the theme "conservation", prepared by students of Architecture and Civil Engineering on the occasion of 24th National Earthquake Safety Day, were exhibited. Due to the spread of COVID-19 (Omicron variant) prescheduled exhibition on 2nd Magh was postponed.

Few other projects including collage, fine art works were also displayed in the exhibition. The hard work and dedication of students were appreciated by the mass of viewers.



Mr. Sunil Prajapati, Mayor, Bhaktapur Municipality observing model exhibition



National Conference on Trends in Architecture – Nepal 2022

8th Chaitra

Khwopa Engineering College (KhEC) & Khwopa College of Engineering (KhCE), an undertaking of Bhaktapur Municipality, are jointly organizing a "National Conference on Trends in Architecture – Nepal 2022" on 9th of Baishakh 2079 (22nd April, 2022).

Mr. Sunil Prajapati, Mayor of Bhaktapur Municipality & Chairman of the colleges, inaugurated official website <https://architecture.khwopaconference.com> at a program organized by the colleges. On the program, Chairman Prajapati said, "We are organizing national and international conferences regularly and focusing on research activities in all colleges."

Mr. Prajapati stressed that, "Nation should focus on technical education to overcome the problem of joblessness. Education should not be the matter of

distributing certificate only. Technical education must be coupled with theoretical as well as practical approach."

Instructing the faculties of the colleges, Chairman Prajapati said, "College graduates should be capable enough to cope with the challenges in the 21st century and dedicated to the nation & people."

In addition Mayor Prajapati shared with the faculties that Bhaktapur Municipality, with the help of people has been successful in renovation, reconstruction and conservation of heritages and cultural values in the Bhaktapur.

In the program, Er. Sujan Maka, Principal of KhEC, Er. Sunil Duwal, Principal of KhCE and Ar. Libas Phajju, Co-ordinator of the conference shed light on the objectives of organizing the conference.



Mayor Sunil Prajapati inaugurating website

Field Excursion to Bardibas and Janakpur

9th Chaitra

Postgraduate Department of Earthquake Engineering organized a two-day field excursion to Bardibas and Janakpur from 2078 Chaitra 9th and 10th for students of M.E. Earthquake first semester (MEQ077). The excursion prescribed in the syllabus of Engineering Seismology was led by faculty member, Dr. Subeg Man Bijukchhen and attended by 19 students. The main objective of the fieldwork was to observe and locate the slip surface of 1934 Nepal-Bihar Earthquake in the boundary between Chure and Terai. To understand the working of a seismic station and structural component of a railway station was also another objective.

The excursion team visited and studied about construction and different components the seismic station of Nepal Seismological Centre at Bardibas. It

helped augment their knowledge on seismic network as this fieldwork took place after a one-day visit to Centre's Kathmandu control room which receives all the earthquake signals from the stations. The next stop was the bank of Sir Khola near Cheru, Bardibas where the slip surface of 1934 (1990 BS) Nepal-Bihar earthquake can be observed. The movement of ground due to the earthquake can be clearly seen on the surface.

At Kurtha Station, Janakpur, the team observed and studied working mechanism of the railway tracks and train. They also studied the construction method of station building and other components of the station. Overall, the fieldwork was successful in meeting its objectives.



Seismic Station at Bardibas



Kurtha Railway station, Janakpur

Participation of Khwopa Engineering College in Provincial Innovation Exhibition

11th Chaitra

On March 25th, "Provincial Innovation Exhibition" event was organized by National Innovation, Digital Network and NAST (Nepal Academy of Science and Technology) with an objective to bring together the provincial government leaders, public and private organizations, development agencies and innovators in the same platform and build an innovation support ecosystem. The main theme of the event was to ignite the spark of innovation among innovators from each province. Two groups of Students from Khwopa Engineering College (KhEC) participated in the event. Students from Computer Engineering Krishna Dev Adhikari, Kushal Badal and Simanta Karki and Sirish Titaju and Swostika Shrestha exhibited their project titled "Nepali AI Anchor" at the event. This project can

beimplemented for the conversion of given Nepali text to given reference voice. Students from Electronics and Communication Engineering Anup Shrestha, Bobby Maka, Gaurab Tamakhu and Prasanna Dahal, Subin Shrestha also marked their presence in the event with their project titled "Animal Intrusion Detection and Repellent System". This project can be implemented in any animal restricted area where a restricted animal is detected and repelled in that area. Both projects are final year projects and are in developing phase. The objective of participation was to get feedback and suggestions from experts and other professionals for the development of project as well as to share project ideas with other participants and visitors. Students from Electronics and Communication Dachhoti Sherpa, Sanuj Kumar

Shah, Shreeti Poudel and Shuvam Karna volunteered for the event proceedings.

The event was organized with the objective of bringing together innovative ideas from different parts of the country. Experts from different fields

gave their feedback and praised the participants for their innovative ideas. Students from different schools visited and learnt about the project ideas from different participants.



Participants at Exhibition

Irrigation Engineering Tour of Civil Sixth Semester Students



Students' Visiting Control Room at Bagmati Irrigation Site

11th Chaitra

Department of Civil Engineering has organized the Irrigation Engineering Field Excursion for the sixth semester (2075 Batch) students from 8th Chaitra to 11th Chaitra, 2078. The field visit program was led by Deputy HoD, Civil Engineering Department Er. Razim Ganesh, Er. Shyam Sundar Basukala, Er. Saroj Phaiju, Er. Ramila Shrestha, Er. Supriya Shrestha and Lab Assistant Amar Karmacharya. The field visit was about Irrigation Engineering course according to the syllabus

and Waste Water Treatment Plant for 96 students. The main objective of the tour was to visualize theoretical knowledge learnt during course and to widen the knowledge about subject.

On second day of the excursion, the students visited Bagmati Irrigation Project located in Sarlahi district. Students got familiar with the barrage gates, under sluice, fish ladder and so on at the headworks, and cross drainage structures like inverted syphon, level crossing along the canal alignment. The structures like silt excluder, canal embankment were observed during the visit. On the third day, along the way to Narayani lift Irrigation, students visited headworks of Khageri Irrigation Project. The lift system of Narayani Lift Irrigation was observed where there are two lifts to withdraw water from Narayani River and served upper terraces of the area. Besides visiting the irrigation sites, students were taken to look into the Narayani Reed Bed Waste Water Treatment Plant situated at the bank of Narayani River.

The tour was concluded with sightseeing some of touristic areas like Janaki Temple at Janakpur, Bharat Taal at Sarlahi, Devghat and Jalbire Jharana at Mugling road.

Overall the visit was successfully completed fulfilling its objectives. Faculty & students had enjoyed the tour.

Initial Assessment of Mude Landslide, Sindhupalchowk

12th Chaitra

The initial assessment of Mude Landslide in Panchpokhari-Thangpal Rural Municipality, Sindhupalchowk was carried out on Falgun 12th and 13th, 2078 (Feb 24th and 25th, 2022) and Chaitra 12th and 13th, 2078 (March 26th and 27th, 2022). The assessment is a part of a collaborative study between Khwopa Engineering College and ARSOW Nepal, aimed at the stabilization of Mude landslide using bioengineering. The initial assessment was conducted in two phases by a group of final year BE Civil students and faculty-members from Khwopa Engineering College and Pulchowk Engineering College and was facilitated by ARSOW Nepal. The team members of the assessment were as follows:

1. Dr. Bhim Kumar Dahal, Pulchowk Engineering College
2. Dr. Subeg Man Bijukchhen, KhEC

3. Er. Amit Prajapati, KhCE
4. Aashish Kumpakha, KhEC
5. Bikesh Khatri, KhCE
6. Rishi Ram Acharya, KhEC
7. Sanam Shrestha, KhCE, and
8. Trishna Balaya Shrestha, KhEC.

The reconnaissance field visit was to gather necessary information on the geology, topography, and the site condition of the landslide. Geological and geotechnical information were recorded to prepare an engineering geological map. Soil and rock samples were also obtained. Information on local plant varieties were collected to use in bioengineering. Detailed topographical mapping was carried out by Unmanned Aerial Vehicle (UAV) – Drone survey. More information on geotechnical and hydrogeological conditions was also obtained during this field visit.

From the information gathered, suitable remedial works are recommended for the stabilization of the landslide. Necessary check dams, stone soling, cascade drainage, and bioengineering works will be designed. The remedial measures should help stabilize the landslide from the storm water of oncoming monsoon.



Aerial view of landslide area



Students at landslide area

Vice Principal Phoju visits Purbanchal University

16th Chaitra

On March 29th and 30th 2022, Er. Rabindra Phoju, Vice Principal and Er. Ganesh Ram Dhonju, Head of Exam Section, paid a courtesy visit to Prof. Dr. Yadav Koirala, Vice Chancellor of Purbanchal University (PU). During the meet, Vice Chancellor Koirala reassured that utmost priority has been allocated for the community colleges and colleges run by local government in regard to granting a new affiliation as well as additional programs. The delegates from KhEC discussed different issues

related to PU with Prof. Devi Prasad Bhattraai, Dean, Faculty of Engineering, Prof. Dr. Pawan Jha, Dean, Faculty of Science & Technology, Prof. Mohan Basnet, Exam Controller, Office of Examination Management, Er. Hemanta Goit, Deputy Dean, Faculty of Engineering and others. Educational & Co-curricular activities, Administrative and Exam Related issues were discussed during the meet.



Khwopa Delegates with Prof. Dr. Yadav Koirala, VC, PU, and Prof. Devi Pd. Bhattraai, Dean, Faculty Of Engineering

Delegates from Indian Colleges visited Khwopa Engineering College

20th Chaitra

A team of delegates from Indian Colleges visited Khwopa Engineering College (KhEC), an undertaking of Bhaktapur Municipality, on 20th Chaitra 2078. Er. Sujan Maka, Principal and Er. Rabindra Phoju, Vice Principal of KhEC welcomed them in the college. In a meeting held between faculty of the college and delegate professors, different prospects for future collaboration were discussed. Delegates

were highly impressed with the "Khwopa Model" of development, innovated by Bhaktapur Municipality. Dr. S K Biradar, Principal, MSS'S College of Engineering and Technology, Dr. Prashant Ambud, MIT Aurangabad, Dr. Ramkisan Pawar, Principal, Shreeyash College of Engineering, Aurangabad and Dr. V. Nagaraj, Chairman, Sambhram Institutions, Bangalore observed the college labs & library during their visit.



Indian Colleges delegates in conversation with Students



KhEC family with the Indian Colleges' delegates

Participation on Hydrocon 2.0



Receiving award from Honorable Minister of Energy, Water resources and Irrigation Pampha Bhusal

21st Chaitra

From April 2 to 4, 2022, "Hydrocon 2.0" event was organized at Himalayan Hydro Expo 2022. The event, organized at Bhrikutimandap Kathmandu, had an objective to inform the investors of hydropower sectors about the prospects of Robotics, Innovation and its practical application in hydropower. Competition was held on two categories Maze solving and Aqua-bot. Khwopa Engineering College took part in the event with total 15 number of students in both the events. Two groups participated in Aquabot event and three groups participated in maze solving competition from Electronics and Communication Engineering Department. The team consisting of Anoop Shrestha, Gaurab Tamakhu, Subarna Poudel, Subin Shrestha and Suman Kandel that participated in Aqua-bot secured second place. Bobby Maka, Gaurav Maharjan, Ranjiv Shrestha and Smriti Shakya also took part in the same event. In this event, participants had to design and build two robots namely Maintenance-bot and Carrier Aqua-bot. The game arena represented a problematic situation that occurs in a dam or a hydropower plant. The primary task for the event was to clear the clogged tunnel and restore the water flow in shortest time period possible. In maze solving event, the team of Shadev timilsina, Sanuj Kumar Shah and Rajal Baral secured second position. Another two groups of Gaurav Maharjan, Ranjiv Shrestha, Smriti Shakya and Abiral B.C., Prasanna Dahal, Ram Kushma, Rojish Twati also



HoD With Participants of the Competition

participated in the same event. In this event, participants had to design a robot that can find its path automatically in the maze. Teams got points when bot reached certain area which had pre-allocated points. The theme of this event was to find path in tunnel to rescue workers in hydropower plant if and when they got stuck in tunnel after accidents. Student from Electronics and Communication Department Sujana Lamsal took part in this event as member of event organizing committee. Er. Upendra Dhungana (Alumni of Khwopa Engineering College) led the organizing committee during the competition. HoD of Electronics & Comm. Department, Er. Yogesh Bajracharya was invited as the guest of honor in Certificate and prize distribution program. Though it was an experimental event, students got to know the ways of linking innovation and robotics to hydropower sector. This type of event needs to be promoted so that student will get opportunity to show their skills and knowledge.

Computer Engineering Students' Field Visit

25th Chaitra

Department of Computer Engineering, Khwopa Engineering College organized a 6-days educational field visit for 6th semester students of BE Computer Batch-2075 from 20th to 25th of Chaitra, 2078. The educational visit was led by Sr. Lecturer Er. Milan Chikanbanjar, Lecturer Er. Ram Nakarmi, Asst. Lecturer Er. Avijit Karn and Lab Assistant Mr. Rabin Tuitui. A total of 39 students participated in the visit that stretched about different touristic attractions in the western region of Nepal. The visit mainly focused on the research and feasibility analysis of the socio-economic challenges and opportunities for the IT and Computer Field personnel in those areas. The visit kicked off from the college premises at 7:30 am on the first day reaching Beni at the end of the day. On the second day, the participants reached Muktinath. They studied different indigenous

technologies used for energy needs and income generating for daily livelihood of locals. The following day, the participants visited glacial lakes around Jomsom area and studied the possibility of Communication grids on the area. Day 4 was the day when students reached the popular tourist destination Ghandruk. They conducted interviews with the local entrepreneurs. Day 5 marked the visit to Nepal's longest single Suspension Bridge located at Kushma, Parbat. The participants observed the social impact of the bridge on the livelihoods of the local people. On the last day, the participants visited major attractions at Pokhara. The visit was concluded on 25th Chaitra around 6 pm in the evening.

Overall, the visit completed successfully fulfilling its objectives. The visit helped widening the knowledge of faculty and students.



Glimpses of educational tour 2078

नयाँ वर्ष २०७९ साल तथा बिस्का जात्राको अवसरमा
सम्पूर्ण शिक्षक, कर्मचारी, विद्यार्थी, अभिभावक
र शुभचिन्तकहरूमा
हार्दिक मंगलमय शुभकामना व्यक्त गर्दछ ।



खवप इन्जिनियरिङ्ग कलेज
भक्तपुर-८, लिवाली

Arduino Training Conducted



Participants engaging in training

27th Chaitra.

Arduino Training was conducted from 7th Chaitra to 22nd Chaitra 2078 at Khwopa Engineering College. Department of Electronics and Communication organized a week long training for each of the 2nd and 4th semester students. A total of 47 students (23 students from 2nd semester and 24 students from 4th semester) were involved in 15 hour long training. Er. Krishna Prasad Chaulagain and Er. Raunak Joshi facilitated the training.

During the course of the training, students were introduced to development boards and Arduino through hands-on learning approach. Students

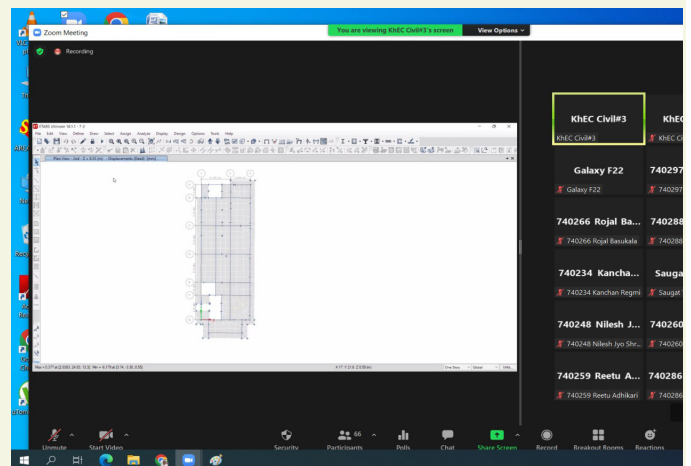
acquired knowledge on basic electronic components, bread boarding, Arduino programming, interfacing different sensors in Arduino, datasheets, motor control, digital and analog data in Arduino, communication protocols, 555 timer projects, basic soldering techniques, and free-form electronics. Students were able to create basic power supply in breadboard and also in matrix/ proto board.

Such training would help students in developing a better understanding on the concepts associated with the subject matter. Further, it would help them building basic knowledge in robotics and automation and in their future endeavors.

Presentation on “Criteria for Earthquake Resistant Design of Structures IS 1893: 2016”

29th Chaitra

Presentation on “Criteria for Earthquake Resistant Design of Structures IS 1893: 2016” was conducted on the 29th of Chaitra 2078 by Senior Lecturer Er. Sudip Karanjit at Khwopa Engineering College. Department of Civil Engineering organized the presentation for 8th-semester students. The presentation was intended to clarify the confusion regarding the new building code and its criteria. Different seismic design criteria were demonstrated to students to comply with the new code with reference to both static and dynamic analysis.



Online Zoom Meeting

Best Wishes on the Occasion of the New Year 2079 B.S.



29th Chaitra

Khwopa Engineering College (KhEC) and Khwopa College of Engineering (KhCE), an undertaking of Bhaktapur Municipality, jointly organized a special program with a view of exchanging greetings and wishes among their faculty and staff on the occasion of New Year – 2079 B.S. as well as Bisket Jatra.

While extending her best wishes to the faculty and the staff at the program, Deputy-mayor of Bhaktapur Municipality Ar. Rajani Joshi, Vice-chairperson of the college management committee urged faculties to think and act promptly to resolve the perverse presently seen during the Bisket Jatra, an important festival observed during New Year. "With the help of people and their support, Bhaktapur Municipality performed best and succeeded in coining 'Khwopa Model' in recent years. Seven educational institutes, Khwopa Hospital, door-to-door nursing service, reconstruction of heritages, local curriculum development, etc. are only a few exemplary works of Bhaktapur Municipality.", she added. Deputy Mayor Joshi also appreciated overwhelming public support to Bhaktapur Municipality to install an oxygen plant at Khwopa Hospital during the spread of the COVID-19 pandemic and people's participation in the reconstruction of cultural and historic heritage structures and new infrastructures construction, which has been an example to other municipalities.

Er. Sujan Maka, Principal, KhEC, summed up the major activities performed and events conducted at the college within 2078 B.S. Sharing the future endeavours on the part of the faculties, he informed that KhEC and KhCE are jointly organizing 'National Conference on Trends in Architecture' on Baisakh 9th, 2079 B.S. and the 3rd International Conference in Earthquake Engineering and Post Disaster Reconstruction Planning (ICEE-PDRP) next year.

Similarly, Er. Sunil Duwal, Principal, KhCE, briefed on major achievements of the college and shared the present admission status in the college. According to Mr. Duwal, 2078 B.S. has been the year with the highest number of applicants for admission at KhCE. He highlighted ongoing research activities at the college, too.

In the same program, Vice-principal of KhEC Rabintra Phojju, Vice-Principal of KhCE Ratna Shova Prajapati, Prof. Dr. Raju Bhai Tyata, Assoc. Prof. Dr. Chandra Kiran Kawan, Assoc. Prof. Dr. Manjip Shakya, Ar. Libash Phaiju, Ar. Rijina Bajracharya, Er. Amit Shankar Ranjit, Er. Ramesh Bala, Er. Bikash Chawal, Er. Dinesh Gothe, Er. Yogesh Bajracharya, Er. Rakesh Gwachha, Er. Amit Prajapati, Mr. Naba Raj Budhathoki, Mr. Bhes Bahadur Thapa, Mr. Siddhi Ram Suwal, Mr. Sanjay Manandhar, Mr. Kaji Bahadur Pancha, Mr. Rajan Jati extended their wishes and briefed the major activities on behalf of their respective committees, departments and sections.

Message of Best Wishes !

On the occasion of 70th anniversary of Southwest University of Science and Technology, Sichuan, PR China, Khwopa Engineering College sent a message of congratulations and best wishes as an MOU partner of the University.



An Undertaking of Bhaktapur Municipality
KHWOPA ENGINEERING COLLEGE
(Affiliated to Purbanchal University)



Ref. No. 12011678179

Date: 31 March 2022

Prof. Dong Faqin
President of Southwest University of Science and Technology,
Sichuan, PR China

On behalf of Khwopa Engineering College, an undertaking of Bhaktapur Municipality, I extend hearty congratulations to Southwest University of Science and Technology (SWUST) and its valued members for completing wonderful journey of 70 years of success. We wish you all the success for the years to come! It's our pleasure that we are working with you for the past several years, and we have always found our relations with you mutually beneficial.

Khwopa Engineering College established with a motto of 'Dedicated to Country and People' to provide quality education at an affordable fee. Currently 1,016 students from almost all parts of the country are pursuing their engineering courses in four Bachelor's and two Master's degree programs. Similarly, our 101 faculty members and staffs are providing their best to meet the objective of the college leading to reach the goal 'Establishment of Khwopa University'. The achievements of SWUST have always been a source of inspiration and motivation for our institution to work further towards realizing our goals.

Since the MoU in 2018, our collaboration in academic as well as research works has been marked by the meeting with Prof. Yin whereby we could discuss as to how we would work in the joint venture. Due to Covid-19 pandemic, the world has suffered a setback, and academic institutions could not remain an exception. However, we would now like to take forward our mutual collaborations with a new zeal to work in better and more collaborative research and exchange programs in the field of academics and innovations.

We extend our best wishes to SWUST for every step in your future journey and unprecedented achievements in the days to come. Our relationship will definitely help strengthen the age-old friendly relationship between Nepal and Peoples' Republic of China.

Sunil Prajapati

Sunil Prajapati
Chairman, Management Committee, Khwopa Engineering College and
Mayor, Bhaktapur Municipality, Nepal

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