

HIGHLIGHTS

Page 2

[Report on 28th Summer University, Gwangju, South Korea](#)

Page 2

[An Opportunity for JNEC to be on Air](#)

Page 4

[Journey to JENESYS 2015](#)

Page 5

[The Prime Minister visits JNEC](#)

Page 6

[In Pursuit of Understanding Media Language](#)


Hon'ble Prime Minister of Bhutan Inaugurating B.E. in Power Engineering Programme

Jigme Namgyel Engineering College, hereon

Thinley Wangmo, Asst. Lecturer, HMD

As part of the 60th Birth Anniversary celebration of His Majesty the Fourth Druk Gyalpo, the college has been renamed as Jigme Namgyel Engineering College. In the year 1974, the college was named as Royal Bhutan Polytechnic which was changed to Jigme Namgyel Polytechnic after becoming a constituent college of the Royal University of Bhutan (RUB).

In addition, the college achieved another milestone by introducing a degree programme, Bachelor of Engineering in Power Engineering. The inauguration ceremony was graced by His Excellency Prime Minister Tshering Tobgay as the

guest of honor, accompanied by the Minister of Education, Vice Chancellor of RUB, former Chairperson of Anti-Corruption Commission of Bhutan, Professors from IIT Roorkee (India) and Pune College of Engineering (India), and other dignitaries from Samdrup Jongkhar dzongkhag.

In his address during the inauguration ceremony held on 27th Oct, 2015, the Hon'ble Prime Minister shared that the event was a worthy dedication to pay tribute to His Majesty the Fourth King of Bhutan. He further said that the foundation of the college was laid in 1972 coinciding with the enthronement of His Majesty the Fourth King and in 1974 when His Majesty was officially crowned as the Fourth King of Bhutan, the college also formally started offering various courses. Along with the inauguration of the de-

gree programme, a Diploma in Materials and Procurement Management was also introduced. The new programme will enable the college to further contribute towards the socio-economic development of the country by supplying professionals in the area of materials and procurement management.

With the two new programmes, JNEC now offers a total of eight programmes: 1) B.E. in Power Engg., 2) Dip. in Civil Engg., 3) Dip. in Electrical Engg., 4) Dip. in Mechanical Engg., 5) Dip. in Electronics & Communication Engg., 6) Dip. in Surveying, 7) Dip. in Computer Hardware & Networking and 8) Dip. in Materials & Procurement Management.

The college in its 42 years of service to the nation has supplied 3032 engineers towards national work-force and is benefiting the nation significantly.

Participation in 28th Summer Universiade, Gwangju, South Korea

Rinzin Choden, D2C

The Royal University Sports Federation of Bhutan selected eight athletes for two events that is Taekwondo and Table Tennis to participate in 28th summer Universiade, held in Gwangju, Korea. The selection was done on December 2014, where students from different colleges under the Royal University of Bhutan attended a week long workshop on coaching and selection. After almost a week of training at Paro College of Education, we started our journey on 1st July, 2015 headed by the Director of RUSFOB and other officials. The three hour flight with Tashi Airlines to Bangkok was a delightful one. It was exciting to be away from home and experience new places. Having the next flight to Korea on transit, we waited inside the airport for almost eight hours. However, it wasn't a stressing wait. The Airport was astoundingly huge with fascinating shops, restaurants and Wi-Fi services for everyone in the cozy lounge.

It was amazing five hours of flight with Korean Airlines, with appreciable services and hospitality. Gwangju was again four hours journey by bus from Incheon airport.

Gwangju the city of light, hosted the 28th summer Universiade with an EPIC event, showcasing the qualities of eco-friendliness, peace, IT technology and culture of Korea to almost 10,711 participants comprising of 7,371 athletes and 3,337 officials representing 137 countries. With the theme 'Light Up Tomorrow', the 12 days long event officially was inaugurated with a grand ceremony on 3rd July, 2015.

All of us played single matches with participants of different countries. On 7th July, Bhutanese team first played the Table Tennis singles match. The Taekwondo team also gave in their best possible strikes, however none of them could win any match but the experience and exposure from the events were worth everything. In all the matches the athletes demonstrated skills, talents, discipline and sportsmanship.

Apart from training programs, we also participated in different activities held



RUB delegates in South Korea

and conducted by the volunteers. We were engaged with learning Korean culture, tradition, arts and crafts, and were introduced to Korean cuisine.

Apart from sports event at Universiade village, we made a trip to Tibetan temple and museum. It was amazing to find old Buddhist monuments and sculptures. We also visited gardens. It was fascinating to know that even their countryside is well equipped with latest technologies.

The 12 days program came to an end on 14th July, which was marked by lowering the flag of FISU and handing it over to the next host country, Taiwan, who is going to host the program in 2017. The event came to an end with exchange of cultural programs.

Although we failed to bring home the

(Page 8)

An Opportune for JNEC to be on Air

Prasana Rimal, D2ECE



To commemorate the 60th Birth Anniversary of our Fourth Druk Gyalpo His Majesty Jigme Singye Wangchuck, Nehru-Wangchuck Cultural Center (Embassy of India, Thim-

phu) in collaboration with the Royal University of Bhutan organized an inter-collegiate declamation competition.

The event commenced on 5th November, 2015. It was graced by honorable Prime Minister Tshering Tobgay and the Indian Ambassador His Excellency Gautam Bambawale. The Jury comprised of highly learned executives. It was broadcast live on BBS.

Before the start of the event, participants were given the topics through lucky dip on which they had to declaim in the same evening. The topic I got was, "The role of water resources in Bhutan's development", which I had to deliver in a frame of 5 minutes.

Thereafter, I visited the National Library to go through some of the literatures. Though there is a cliché saying that "winning is not important, participation is everything". Yes, I felt that my participa-

tion in that event enhanced my confidence level, gave me wisdom on our country's rich resources and provided me an opportunity to interact with intellectuals.

The participants from Royal Institute of Management (RIM), Royal Thimphu College (RTC) and Sherubtse College won the competition.

While for others, as a token of appreciation, consolation prizes were awarded.

The organizers also invited all the dignitaries, participants and their escort faculty for a grand dinner just a day before the event for familiarization and interaction with each other.

As a fortunate participant, I pay my gratitude to the college for giving me this opportunity.



UHV Workshop Participants

Learning Human Values

Human Values is vital in every aspect of lives. It is often passed down in a hierarchical manner and these are the values an individual practice in a life time. The Human Values workshop was conducted at Jigme Namgyel Engineering College from 11th till 13th of August 2015. The programme was attended by the Director, faculty members and student councilors representing the student body of JNEC, sector heads and School Principals of Samdrup Jongkhar dzongkhag. The programme was resourced by Prof. Ganesh Bagaria and Mr. Rajul Asthana. The Human Values basically was about simple human values and realities which an individual is hardly aware of. Self-verification which is an important aspect and a simple pathway to happiness was acknowledged. It was mentioned that whatever taught and shared during workshop was a proposal and that individual (self) should verify and realize. It was left to the individuals to consider for further acceptance.

The teaching and discussion began on the aspect of self happiness and prosperity on the first day. Human desires

and efforts to fulfill the very desires were questioned following the first aspect. It was made aware that unhappiness is due to lack of fulfillment of the desires and spending much effort and time for physical facility.

On the same day, the role of education was discussed and was pointed out that the role of education is to facilitate the development of competence to live with definite human conduct by enabling transformation, ensuring right understanding, relationship, and physical facility with nature.

On the following day, the importance of "What to do?" was established over "How to do?" It is opined that good behavior of human beings provide mutual happiness as that of nature that provides mutual prosperity. All the human goals irrespective of the work is to eventually to be happy and prosperous. For continuous happiness, understanding harmony at all four levels namely Harmony in human being, family, society and with nature is essential. It was later highlighted that the basic sources of happiness are generated through right understanding, right feeling and expected sensation from the body.

In the following program, the priority

between needs and self was shared to have self-reflection. The members were clarified on what an ego is. It is felt that sometimes we fail to understand self and tend to over evaluate ourselves. It was made known to participants about ego as over evaluation of self and depression as under evaluation of self. Thus, it is felt vital to know ones' ego and maintain harmony in self to be in harmony with other stages. It is shared that one should be mindful about the activities of self, that is desire, thought and expectation. It was also made aware that prosperity means understanding self with the body.

Towards the end, the feelings in a relationship were shared. A relationship is known to be based on nine moral feelings namely Trust, Respect, Affection, Care, Guidance, Reverence, Glory, Gratitude and Love. The evaluation and fulfillment of these feelings is meant to finally lead to mutual happiness depending on intention.

The three day workshop on Human Values was an eye-opener for most of the participants who thought that complete source of happiness and prosperity can be derived from wealth and excessive physical facility.

Pre-informed System for Safety on Road

Kumar Gurung, Budha Raj Limbu and Deepak Ghalley

D2C, 2015

One of the models showcased during innovation exhibition held in Jigme Namgyel Engi-

neering College on 27th October, 2015 was "Pre-informed Transport System". This model was designed, keeping in view, the road condition and geographical nature of the country. This model is therefore designed to prevent accidents in most of the road system especially in hilly zones. This model as a traffic signal, will alert the driver of approaching vehicle from other end at sharp and

curved zones of the road. This would prevent head-on collision between vehicles plying from opposite directions. We felt having such traffic system in Bhutan would be very much suitable and beneficial.

The model functions with the bumper constructed as speed breaker in

Journey to JENESYS 2015

Som Maya Rai, D2E

Japan East Asia Network of Exchange for Students and Youth (JENESYS) as noteworthy exchange program is organized by Japan International Cooperation Centre (JICE) for ten days from 17th to 27th January 2016. The program was attended by delegates from all the SAARC countries. The objectives of JENESYS 2015 includes promoting trust and understanding with people of Japan and Asian countries, global understanding of Japan's society, history, diverse culture and foreign policies and to share information and experience acquired from the program to general public of home countries.

On departing from Bhutan, we reached Japan on 17th of January where we were warmly received by Ms. Yuki, coordinator for Bhutanese group. We were directly taken to the capital city of Japan, Tokyo. We were fascinated by those tall and beautiful infrastructure. Hi-tech transportation system really appeared sophisticated. We visited the Tokyo tower also called the One Piece tower through which we were shown "The Cool Japan". We were given best hospitality and got accommodated in different hotels namely Shinjuku New City Hotel, New Sunpai Tochigi, Hotel Kagetsu and Hotel EAST21 Tokyo.

Since, the exchange program was mainly on Energy, we were given opportunity to visit several centers and plants. We visited Shibaura Water Reclamation Centre established in 1931 and it is the third oldest water reclamation centre in Tokyo. This plant collects unclean water from the office buildings and households to be treated further. After the sand filtration, treated water is used for cleaning the facilities, cooling machines and flushing toilets in the reclamation centre. After the further treatment by ionization, water is supplied to the neighboring buildings for flushing toilets. The sludge is treated at Nambu Sludge Plant.

Another plant we visited was Ariake Incineration Plant, the waste disposal plant of Tokyo. The Clean Authority of TOKYO has been operating waste incineration plants in 23 wards in Tokyo, treating waste from ordinary households



Bhutanese delegates at JENESYS 2015, Japan

and offices. At the same time the authority treats incombustible and bulky waste and sewage. In the 23 wards area of Tokyo, approximately 3 million tons of wastes are treated every year. We were also taken to some local industry, the Toshen Co. Ltd, Tokyo and Nakagawa Aquarium. In addition, we were also given opportunity to view tradition of Japan to Edo-Tokyo Museum and a very beautiful Zen Temple (Zen Dera). Besides we visited the Panasonic Centre Tokyo/RiSuPia, experiencing the cutting edge technology of Japan. Panasonic Centre Tokyo, established in September, 2002 is a Corporate Global Communication Hub for Panasonic. It includes employing natural energy sources such as solar and wind power, the effective use of rainwater and adoption of an Energy Management System. The centre is very much friendly to both environment and to the community.

The program also included exchange session with school. We visited Teikyo University, Utsunomiya campus where we had exposure to some of their classes and had interactive session with the students. The university courses comprise of several area such as Arts, Economics, Science and Engineering, Medical Technology. Through this school exchange program, we experienced the similarities and differences between the youth of our country.

One of the most interesting program was

the home stay. During the home stay program, we as delegates in a group of two to three members were made to visit different households. We spent two nights and a day with Japanese ordinary family. We shared some space and time with host family and they treated us as their own family members. It deepened our understanding on life and sense of values of Japanese. It was an opportunity for us as well as for them to share each other's culture and tradition. It was one of the most unforgettable moments in my life. Thus, we experienced the beauty of Japan in terms of nature, technologies to protect and preserve the environment and the love and care present among the communities.

Though Japan is one of the developed countries in terms of technology in the world, the commitment and concern for environmental protection is very strong. The two things which inspired us the most are the preservation of traditional Japanese houses in the midst of its rapid development with finest architectural structures such as Tokyo Sky tree; Tokyo tower and the Tokyo metropolitan office buildings.

The ten days stay in Japan was worthwhile where we learned and experienced various amazing values and got broader exposure. After visiting Japan, I

(Page 6)

The Prime Minister visits JNEC

Jigme Choden, D2C

On 16th March, 2016, towards the dusk, the college received casual visit by His Excellency, Lyonchen Tshering Tobgay in the college campus. His Excellency was accompanied by Minister of Economic Affairs and Minister of Education. Officiating Director, Deans, Head of the Department, staff and student councillors warmly received the delegation by late evening.

His Excellency shared that he was in Samdrup Jongkhar for the mid-term review of Five Year Plan and had a wish to visit JNEC campus. His Excellency asked faculty and student councillors to share on some of the critical issues in the college campus. His Excellency did mention to avail support to resolve critical issues when one of the councillors raised the need for vehicle in the college.

It was inspiring to learn from His Excellency's talk on historic moments that tak-

en place in Dewathang and how engineers in those days strive to be nation builder occupying important positions in many organization now. His Excellency still recounts the five Zorig Commitments and shared its es-

sence to all members present. He mentioned that five Zorig commitments include: Commitment to Quality, Lifelong learning, Dignity of labor, Entrepreneurship and Resistance to the corruption.

His Excellency noted that the college is meant to progress in breeding intellects and JNEC otherwise has been so far contributing its technical manpower to the nation for the last four decades. He also shared that college is making successive accomplishments, it should still grow further in field of higher learning as an ex-



Hon'ble Prime Minister with the JNEC Staff and Student Repre-

cellent learning institution.

His Excellency reminded us that college must look towards higher achievements in terms of academic excellence, research, innovation, creativity, skills and many more in the field of technology. With much compliments and noble advice, His Excellency and other delegation left the college campus with the hope and expectation that JNEC will grow significantly and be meaningful in the service to the nation.

STAFF UPDATES	
New Appointments	
Mr. Kul Prasad Sharma (Associate Lecturer, HMD)	
Mr. Phurba Tamang (Asst. Lecturer, CESD)	
Mr. Thongley (Asst. Lecturer, CESD)	
Mrs. Wangmo (Asst. Lecturer, HMD)	
Ms. Srijana Gajmer (Asst. Lecturer, ECE)	
Ms. Tandin Zangmo (Asst. Lecturer, ECE)	
Mr. Karchung (Asst. Lecturer, EED)	
Mr. Sanjit Kumar Bhattarai (Asst. Lecturer, CESD)	
Mr. Choten Tshering (Asst. Lecturer, CESD)	
Mr. Shashi Kumar (Adjunct Faculty, AWBC)	
Resignation/Retirement	
Mr. Cheda (Associate Lecturer, MED)	
Mr. Kadola (Security Guard)	
VISITORS LIST	
NAME	DATE
Mr. Hajime Shirai, Executive Director, SECONEQ, Japan	14th –17th April, 2016

In Pursuit of Understanding Media Language

On 23rd March, 2016 students of Jigme Namgyel Engineering College (JNEC) was sensitized on Media and Information Literacy. This sensitization event was resourced by the four officials from Department of Information and Media under Ministry of Information and Communication (MoIC).

After the study on Media Impact in 2008, there was a need of sensitizing on media literacy. The objectives of programme was to showcase the 21st century approach to educate in understanding the use of mass media and to educate on decision making and enhance good governance. Through the programme students were able to learn about constructing positive values from media. In addition it is to build better citizen in democratic society inspired by Gross National Happiness.

The content of the programme includes knowing media and its source; growth of media in Bhutan; media and information literacy; social media and skills required in understanding the media and its information. The programme was avenue in enhancing students' analytical and critical thinking skills. It is also to promote active participation and live in information –based society. Further, the programme educated them on using social media wisely, with statement, one should know “what is illegal offline is illegal online.”

In their programme students were informed on growth of media in Bhutan. Kuensel and Bhutan Broadcasting Services (BBS) were established in the year 1968 and in the mid 1980s respectively as a first media to provide infor-



Students Attending Media Language Sensitization Programme

mation in Bhutan. According to MoIC, Media can be visual, language or sound produced for mass audience through technology. Every picture, movie, paintings, prayer flag, books and billboards is a effective and efficient source of media in addition to newspaper, magazine, radio and BBS television.

The role of media such as providing job, educating people, enhancing communication, making democracy vibrant through forum for public discussion and expressing opinion, views or concerns were shared. However some of the drawbacks such as rumors and defamation, cyber bullying, fraud, cat fishing and associated problems were also shared.

It was also informed that from 7.219 billion of world population, there are 3.038 billion internet user and 2.126 billion social media users.

To understand the media language, one needs to acquire ‘deconstruction skills’.

Students were informed that information they get from media should be studied thoroughly to know the authors, content and purpose of the message. Further to provide information through media, construction skills such as ‘What am I authoring?’, ‘Does my message reflect understanding?’ and ‘purpose of communicating information?’

Through this programme, it was understood that understanding media language is vital. Since media can be either an inspiration or hindrance to life. It can shape our society for the betterment through valuable information. It is the significant influencing parameter because people trust what media shares.

The sensitization programme, has been beneficial to the staff and students which is found suitable in advancing media society. We thank The Department of Information and Media under Ministry of Information and Communication for this significant initiative.

Journey to JENESYS 2015

realized that our country Bhutan could also look forward in developing facilities in so many fields in the area of education, technology and most of all, the human values. So many opportunities to make our life reach to the next level of success and this program was one of the golden opportunities, to share our knowledge and experience. It has otherwise made us realize the value of living. Therefore, I would like to thank our college for giving me this opportunity as a lifelong memory.

Pre-informed System for Safety on Road

sharp curve road which is connected with the electric bulb system where vehicle plying through such curved will be alerted . The glowing of the light will sensitize the driver to be cautious to reduce the speed of the vehicle. Thus, the movement of vehicle from both direction will be alerted to avoid danger and risk of accidents. This model is designed as a traffic signal for all types of vehicles but not applicable for pedestrians. The signal light will be visible till both the vehicles are clearly visible prevent accidents.

In addition, vibratory sensor can be incorporated with such designed to make this principle more effective. The use of electricity is found more reliable for such system and in case of electric power outage, solar powered system can



Student explaining the Safety System

backup which is also economical. The idea and implementation of such system in hilly country like Bhutan will certainly create safer drive with the increasing number of vehicles in the country.

Such system in place may also attract tourist visiting country where safety is given priority for travelers. This system will also be helpful for pedestrians travelling aside road.

Building Resilient to Earthquake

Pema Kelzang & Group, D2C

Earthquake is defined as a sudden movement of earth's crust caused by the release of stress accumulated along geologic faults or by volcanic activity. Earthquake is one major natural disaster which occurs without advance predicting equipment's in many cases. The destruction it brings is significant and geographic nature of Bhutan may not be safe for any undetermined earthquakes in future. Bhutan falling within seismic zone 4 and 5, earthquake can be unpredictable and huge. The fault in building notwithstanding the shock wave produced by the earthquake in eastern part of Bhutan is due to the Bhutanese architecture that which are mostly designed in traditional way with unstable materials. Which can further be dangerous to the people residing in at the time of earthquake.



Model of Earthquake Resistance Building

Since earthquake is unpredictable and uncertain, the only way is to have earthquake techniques of building earthquake resistant houses to live safely and also to minimize the impact on infrastructure.

Our team tried to design the earthquake resistant building which consist of a roller based foundation.

In the design of such infrastructure, foundation is made where roller system is

(Page 8)

Participation in 28th Summer Universiade, Gwangju, South Korea

pride of victory, we came back with memories and lifelong experiences. Most im-

portantly, we gained exposure of an international sports event and its environment. We learnt the international rules and strategies in sports that proved to be helpful.

Therefore, I pay my heartfelt gratitude to

RUSFOB for providing us with this opportunity and experience. We would look forward to opportunities like this in future. We would also like to thank our coaches and the Director of the college for guidance and support.

Building Resilient to Earthquake

placed below each column. Here the column and the footing is not fixed or connected like the normal building. The base of the building is isolated from the earth surface by the roller system. In this scenario the building is not fixed to the earth and when the surface below moves, the movement is cut off by the roller system like a lubricant between two surfaces thereby drastically reducing the transfer of shock wave of the earthquake to the buildings structure. Since the earthquake can produce more than one kind of shock

wave (some travel vertically, some travel horizontally, and others in circular patterns). It is horizontal acceleration that causes the maximum damage to the infrastructure therefore, this model is design of building with roller system that can resist the horizontal movement in both direction (east to west and north to south).

After the earthquake in order to bring back the building to its position a mechanism somewhat like a shock absorber that is seen in heavy vehicle can be used as restoring mechanism. We should also focus on the superstructure while constructing the earthquake resistant building. In this it consists of modern style building

with the traditional features thereby not only making it durable to withstand earthquake but also preserving the tradition and culture of our country. As compared to the traditional building, the modern building is far safer due to the materials used and the strength provided by the reinforcement. So this is the hybrid building combination of the modern technology and methods for the durability and traditional features for preservation and beautification of the buildings. The design of this building is very much possible and can be built against the force and wave of earthquake.

IN PICTURES



Director and Deans of the College with the Medal Winners from International Martial Arts Competition held in Thimphu at Nazhoen Pelri Hall on 7th-8th May, 2016. JNEC students won a total of 7 medals (3 Gold, 2 Silver & 2 Bronze) and a Trophy for the Best Fighter.

Publication Team

Advisor: Hemlal Bhattarai, Dean (RIL)
Coordinator: Alakesh Sarmah, Asst. Lecturer, CESD
Editor: Namgay Dorji, Lecturer, HMD
Tashi Wangchuk, Asst. Lecturer, ITD
Thinley Wangmo, Asst. Lecturer, HMD
Srijana Gajmer, Asst. Lecturer, ECE
Designer: Sonam Jamtsho, ITSU

Contact: alakesh@jnec.edu.bt,
alakesh.jnec@rub.edu.bt;
Mobile No: 00975-17876024;
Fax: 00975-07-260289
(<http://www.jnec.edu.bt>)