

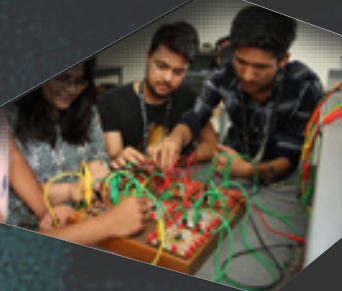
Tribhuvan University Affiliate

# KATHMANDU ENGINEERING COLLEGE

Striving Towards  
Excellence in  
**Engineering  
Education**



PROSPECTUS  
2019/20



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**Everything STARTS Here**

# reverence

Late Mr. **Jhulendra Man Pradhan**  
was a founder of the college, and  
an active member of the  
KEC Management Committee.

His contributions to the institution will  
always be remembered.



# message

from the CHAIRMAN /  
PRINCIPAL's desk

Kathmandu Engineering College (KEC) stands as an emblem of excellence of academic conduct and has always acknowledged learners. Our focus is to imbibe value education among our students. The scientific and creative teaching approach practiced by our faculty fosters every student's ability in achieving confidence, self-motivation, research and problem solving skills. KEC's teaching faculty and management are not only amiable and affectionate but also firm regarding college rules and discipline.

We believe that creating an academic foundation for social, scientific, economic and technological development in our students can guide them towards success in national and international platforms. Our focus is to achieve unparalleled excellence by developing young talents who will bring development to the country. KEC guarantees you a college experience that will put you on the path to becoming a successful and respected professional in your area of study.

**Prof. Er. Hirendra Man Pradhan**

Chairman / Principal  
KEC, Kalimati



# message

from the MANAGING  
DIRECTOR's desk

Kathmandu Engineering College (KEC) is the leading private engineering college, affiliated to Tribhuvan University. It represents a broad and dynamic spectrum of interest, background and approaches. Our college community is committed to make the college a place that promotes freedom of thought, innovation and creativity. KEC has a continuing commitment to articulate, reinforce and reflect moral and ethical values along with technical skills in its students.

To embark on a journey of success one needs to be prepared, have foresight and a successful strategy. It is imperative to combine these three forces in knowledge assimilation, where every day and every semester acts like a pivot tilting the pan balance of life in favour of professional excellence. KEC aims to produce engineers with capabilities in all these areas.

## **Mr. Rajendra Shakya**

Managing Director  
KEC, Kalimati

# message

from the VICE PRINCIPAL's desk

Kathmandu Engineering College (KEC) attracts the most innovative minds from all over Nepal and hones them into socially responsible and technologically able professionals. We maintain a curriculum that accentuates the problem solving skills, communication skills and interdisciplinary teamwork of students. At KEC, the curriculum provided by the university is well augmented by periodic motivational, social and entrepreneurial development activities. The college is committed to inspire its students to develop fundamental values of optimism, mutual respect, knowledge-sharing, innovation and time management to ensure both academic and individual growth. KEC also believes in continuously upgrading the intellectual environment of the campus by conducting faculty development programs and encouraging research amongst faculty and students. With its distinguished reputation in producing qualified professionals, KEC has continuously proven itself to be a generator of technical, intellectual and ethical human resource, capable for the national, regional and global career fronts.

## **Associate Prof. Shailita Manandhar Joshi**

MUD, The University of Hong Kong

B. Arch, Tribhuvan University

Vice Principal

KEC, Kalimati



# board of directors

**Prof. (Er.) Hirendra Man Pradhan**  
Chairman

**Mr. Rajendra Shakya**  
Member

**Mr. Chandra Kumar Rai**  
Member

**Mr. Ram Prasad Dahal**  
Member





**Mr. Hem Raj Upadhya**  
Member



**Prof. Dr. (Er.) Narendra Man Shakya**  
Member



**Prof. Dr. Shailendra Kr. Mishra**  
Member



**Er. Shiva Prasad Koirala**  
Member



**Mr. Suresh Prasad Chaudhary**  
Member



We at KEC provide a reliable choice of Bachelor degree courses with a focus on both practical and theoretical engineering studies:





Architecture



Civil



Electrical



Computer



Electronics Communication  
& Information





# KEC team

## AFFILIATION

Tribhuvan University (TU), Nepal

## ADVISORY BOARD

Prof. Dr. Puskar Bajracharya	Educationalist
Prof. Dr. Partha Mani Parajuli	Visiting Professor, Australia
Associate Prof. Shiva Om Bande Shrestha	Visiting Professor, America
Er. Jyoti Prasad Pradhan	Former DG, Dept. of Building
Er. Manohar Lal Rajbhandhari	Structural Engineering Expert
Er. Manik Ratna Tuladhar	Civil Engineer

## DEPARTMENTAL ADVISORS

Prof. Dr. Dinesh Kumar Sharma	Electronics & Computer
Associate Prof. Ar. Chand S. Rana	Architecture
Prof. Dr. Narendra Man Shakya	Civil
Prof. Dr. Bhagwan Ratna Kansakar	Civil
Prof. Dinesh Kumar Shrestha	Civil
Prof. Dr. Shailendra Kr. Mishra	Department of Applied Sciences
Prof. Prahlad Raj Pant	Department of Applied Sciences
Er. Mohan Krishna Shrestha	Mechanical
Prof. Dr. Indra Man Tamrakar	Electrical
Associate Prof. Mahesh Singh Kathayat	Computer

## MANAGEMENT COMMITTEE

Prof. Hirendra Man Pradhan	Chairman
Mr. Rajendra Shakya	Member
Mr. Ram Prasad Dahal	Member
Prof. Dr. Narendra Man Shakya	Member
Prof. Dr. Shailendra Kr. Mishra	Member
Mr. Chandra Kumar Rai	Member
Mr. Hem Raj Upadhya	Member
Associate Prof. Chand S. Rana	Member
Prof. Prahlad Raj Pant	Member
Mr. Yadav Lal Karmacharya	Member
Er. Shiva Prasad Koirala	Member
Mr. Suresh Pd. Chaudhary	Member
Mr. Dasarath Risal	Member
Mr. Bala Ram Upreti	Member

## ADMINISTRATION

Prof. Hirendra Man Pradhan	Chairman/Principal
Mr. Rajendra Shakya	Managing Director
Associate Prof. Shailita Manandhar Joshi	Vice Principal
Mr. Suresh Pd. Chaudhary	Chief Administrator
Associate Prof. Bed Prasad Pandey	Secretary, Central Monitoring Cell
Associate Prof. Anjeeb Lal Shrestha	Chief, Exam Section
Sr. Lec. Rajan Lama	Chief, Guidance and Counseling Unit
Ms. Bhumika Khatiwada	Library Co-ordinator
Ms. Bijeta Poudel	Sr. Account Officer

## ACADEMIC MONITORING CELL

Prof. Hirendra Man Pradhan	Coordinator
Associate Prof. Shailita Manandhar Joshi	Member Secretary
Associate Prof. Bed Prasad Pandey	Member
Associate Prof. Lila Raj Koirala	Member
Associate Prof. Bimal Bhattarai	Member

# departmental **advisor**

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PROF.

DR. BHAGWAN RATNA KANSAKAR

Dept. of Civil Engineering



PROF.

DR. INDRA MAN TAMRAKAR

Dept. of Electrical Engineering



ASSOCIATE PROF.

MAHESH SINGH KATHAYAT

Dept. of Computer Engineering



# departmental **advisor**

PROF.

**DR. DINESH KUMAR SHARMA**

(Dept. of Electronics Communication  
and Information Engineering)



PROF.

**DINESH KUMAR SHRESTHA**

Dept. of Civil Engineering



ASSOCIATE PROF.

**CHAND SHAMSHER RANA**

Dept. of Architecture



ASSOCIATE PROF.

**MOHAN KRISHNA SHRESTHA**

Dept. of Mechanical Engineering



# academic monitoring cell



**Mr. Bed Prasad Pandey**  
Member



**Dr. Lila Raj Koirala**  
Member



**Er. Bimal Bhattarai**  
Member

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## unit heads



**Mr. Anjeeb Lal Shrestha**  
Exam Chief

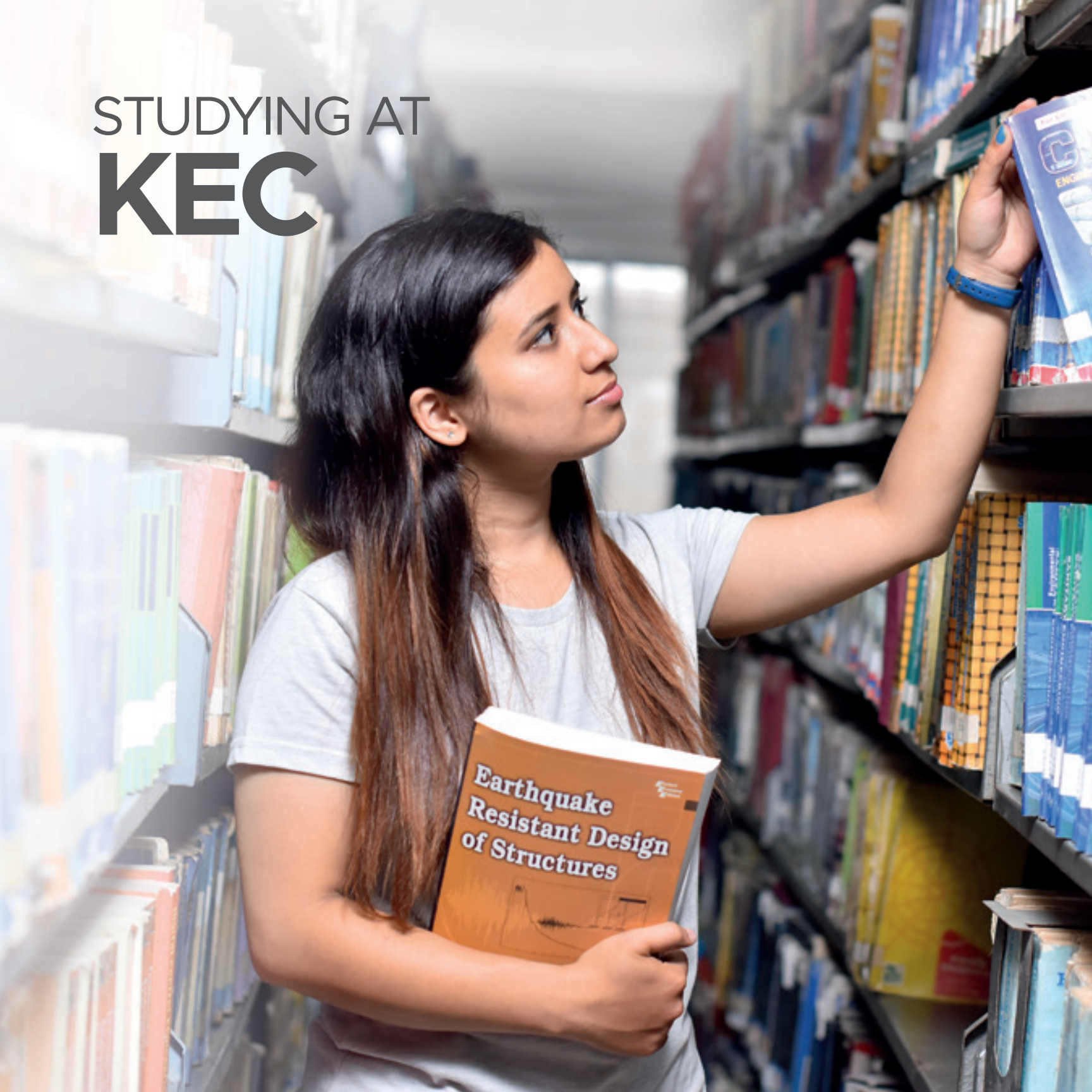


**Er. Rajan Lama**  
Guidance & Counselling Chief





# STUDYING AT **KEC**



## FOUNDATION

Kathmandu Engineering College (KEC) is a private college affiliated to Tribhuvan University (TU). The college was founded in 1998 and is the first ISO certified college in nepal. It is an autonomous college from the perspective of administration, staff and teacher recruitment as well as college development and is managed by a team of excellent board members.

KEC's compound expands over 30 ropanies—comprising of land leased and owned by the college—in Kalimati, Mulpani, Jay Bageshwori and Sokedhara, and boasts all the facilities required to ensure a sound academic environment. The accessibility of the college is among its prominent features as it can be easily reached by public transport. The college also offers transportation facilities of its own, and provides parking space for both two and four wheelers on campus.

The campus constitutes of organized departments, a fully equipped library, students' amenities centre, a multipurpose hall, an administrative block and specified labs.

## AMBITION

The objective of KEC is to provide quality education in an excellent teaching and learning environment with an emphasis on the diversity of technology. The principal aim of our organization includes building a strong faculty, improving our facilities and ensuring that the vision with which the founders first established the institution is fulfilled.

We are committed to the following objectives:

- Meeting societal needs is the goal, knowledge is the tool;

a learning-centred environment is the force.

- Maintaining a curriculum that emphasizes problem solving skills, laboratory facilities, communication skills, interdisciplinary teamwork and advanced technical skills in the Bachelor level.
- Facilities consistent with the very best Engineering practices.
- Supporting and recognizing innovation, technological advances and excellence in teaching, complete with a focus on rigorous assessment.
- Promoting an environment focused on scholarship and research on the faculty's part, and fostering interaction among faculty, students and practicing professionals.
- Planning for the future is strategic in nature.

Our aspiration lies in providing quality education at a reasonable price. We bring out the competent and qualified engineer in every student, and meet high standard industry demands.

## ADMISSION PREREQUISITE

The admission procedure consists of an entrance examination conducted by the Institution of Engineering (IOE). To be eligible to appear in the entrance examination the candidates must have a minimum score of 45% in the Intermediate of Science (Physical or Biological group with two hundred marks math papers) / +2 (Physical or Biological

group with two hundred marks math papers) OR a diploma in engineering OR an equivalent course recognized by the TU.

For admission in Architecture, students need to appear in an aptitude test conducted by the college in addition to the regular entrance examination. Students who have passed the entrance examination conducted by the IOE are eligible for admission at KEC on a merit basis.

## APPLICATION CHECKLIST

The applicant must provide the following items:

- Mark-Sheets, Character Certificates and Transcript of S.L.C, I.Sc. / 10+2 / I.E./ A Level/ CBSE
- 2 passport size photos of the student and 1 photo each of parents and guardians.
- A copy of his/her Citizenship
- Migration Certificate
- 200 marks Math Certificate for Biological or Physical Group applicant.
- Original Score Card given by IOE, Pulchowk should be submitted at the time of admission.

It is mandatory that the academic certificates that are submitted to the college at the time of admission are attested copies.

## COURSE SPECTRUM

Bachelor courses offered:

- Bachelors in Architecture
- Bachelors in Civil Engineering
- Bachelors in Computer Engineering
- Bachelors in Electrical Engineering

- Bachelors in Electronics Communication and Information Engineering

Each course is handled by its respective department, and these are: Department of Architecture, Department of Civil Engineering, Department of Electronics Communication and Information Engineering, Department of Computer Engineering and Department of Electrical Engineering. The college also has two additional departments: the Department of Applied Sciences and the Department of Mechanical Engineering. These support and assist the five major departments on campus.

## OPPORTUNITIES AT KEC

Kathmandu Engineering College, the Griffith University Australia, Yunnan Radio and Television University, China, Handong Global University, Republic of Korea, University of Prince Edward Island, Canada, Microsoft Innovation Centre, Nepal, IT Training Nepal, Gerer Info Tech Pvt.Ltd Nepal, Tech-out solution pvt ltd and Digitronix Nepal have signed a Memorandum of Understanding (MoU) for the mutual benefit. The MoU fosters scholarly interaction, cultural exchange, cooperative research and other forms of academic collaboration.

## COLLEGE HOURS

- Monday to Friday, 7:00 am to 5:00 pm
- Closed on Saturdays, Sundays and on special holidays as per the KEC academic calendar.

## ATTENDANCE

Students shall maintain a minimum of 75% attendance to be eligible for the final examination conducted by the IOE.

## DISQUALIFICATION CRITERIA FOR SEMESTER EXAMINATION CONDUCTED BY IOE

A student shall be considered for disqualification under following conditions:

- Student fails to maintain his/her attendance of at least 75% throughout the semester.
- Student fails in tests conducted throughout the semester. The recommendation for disqualification has to come from the concerned subject teacher.

## STUDENT CODE OF CONDUCT

- Students shall conduct themselves consistently with the Student Code of Conduct while on campus or while participating in college-sponsored events or programs, seminars, field trips, student conferences, club-sponsored events, tutorials and career guidance, regardless of the location. Students shall also conduct themselves in a manner that is consistent with the Student Code of Conduct in any matter related to college activity or attendance.
- Students are required to carry the Identity card issued to them by the college upon admission to respective courses at all times within the college premises.

- All students shall work together with other students to achieve goals. They shall coordinate with each other without conflict, to attain education.
- Student shall treat and talk to all staff, students and the local community with respect, and behave in an appropriate and reasonable way.
- Students have to produce original certificates whenever required by the College. Any form of forgery, alteration, or dishonesty such as lying, knowingly furnishing false information, or reporting a false emergency to any college official, faculty or staff member can lead to strong disciplinary action.
- Mark sheets/ Exam Forms/ Admit Cards or any other certificate/document will not be issued without clearance from the Accounts Section.
- No refund of fees will be made upon withdrawal/ cancellation of admission in any circumstance. The security deposit will be refunded only after the successful completion of the course. The security deposit will be seized if a student leaves a course without completing it.
- Student shall switch off mobile phones in learning areas (i.e. classrooms or learning resource centres) and only use mobiles in an appropriate way in student common areas.

## DISCIPLINARY ACTION

The following disciplinary actions may be imposed, individually or in various combinations, on any student found to have violated the Student Code of Conduct.

- **Warning:** A warning is a written or oral notice to a student that continuation or repetition of a certain conduct may result



in further disciplinary action.

- **Restitution:** Restitution is reimbursement by the student for damage to, loss of, or misappropriation of property. Reimbursement may take the form of compensation for damage.
- **Removal:** A student may be removed from class or office by an instructor or staff member with the assistance of security personnel, if necessary.
- **Suspension:** A suspension may consist of (a) a period of time from one or more classes for one class up to ten (10) days of instruction; (b) from one or more classes for the remainder of the college term; and (e) from all classes or activities of the college for one or more terms, or for an indefinite period of time.
- **Expulsion:** Expulsion is the permanent termination of the student status by the governing board for a very strong cause when other means of correction fail to bring about proper conduct, or when the presence of the student causes a continuing danger to the physical safety of the student in question or of others. A student who is expelled is prohibited from participating in any college activities or programs, and from entering college premises.

## UNIFORM

The prescribed students' uniform is as follows:

- White Shirt
- Navy Blue Pants
- Black Shoes
- Tie (prescribed by the college)
- Navy Blue Sweater/ Jacket/ Coat

## SCHOLARSHIPS

10% of scholarships will be provided according to Tribhuvan University rules. For more detail information, visit college website [www.keckist.edu.np](http://www.keckist.edu.np) or will be published on notice.

## FEMALE QUOTA/ SPONSORSHIPS

Female students are highly encouraged to apply, as an extra 10% reservation is provided for female students besides the merit list.

Besides, 10% of the sponsorship scheme can be provided in each faculty. For this scheme, the applicants must produce legitimate payment guarantee recommendations from any reputed companies, organizations and institutions but that should be followed under the rules and norms of IOE entrance.

## PROGRAMS OFFERED

Courses	Duration	Annual Intake
B. Architecture	5 yrs	48
B. E. Civil	4 yrs	96
B.E. Computer	4 yrs	96
B.E. Electrical	4 yrs	48
B.E. Electronics Communication & Information	4 yrs	96







## Department of Applied Sciences

### Mr. Subash Pokhrel

HOD / Associate Professor,  
Department of Applied Sciences,  
e-Mail: [subash.pokhrel@keckist.edu.np](mailto:subash.pokhrel@keckist.edu.np)

The Department of Applied Sciences is the foundation of all engineering educational processes at KEC and is efficiently supporting the Engineering Departments by providing high quality teaching in basic sciences. The courses offered by this department covers nearly one fourth of the engineering curriculum. The purpose of inducing the subjects of Applied Sciences in engineering study is to lay a well-built foundation on basic concepts for various engineering disciplines. The department has well equipped labs for physics, chemistry and communication english. The teaching learning strategies include lectures, tutorials and practical according to the nature of the curriculum. The department has energetic, well-qualified and dedicated faculty members. The subjects taught by teachers of this department are of prime importance for all round growth

and development of the students. The prime focus of the department is to provide a conceptual base in basic sciences that acts as a platform for students to leap into their core engineering courses. Our department believes that in engineering education, attendance, assignment and Alternate Day Test (ADT) are necessary for quality education. Besides, the department frequently welcomes guest lecturers to inspire and motivate the students and augmenting their all round development.

### ACADEMIC ACTIVITIES

- The department handles the teaching of general subjects: Mathematics, Physics, Chemistry, English, Nepali, Probability and Statistics, Numerical Method as per the syllabus provided by the IOE.
- Subjects like Physics and Chemistry are taught through a practical approach to get students well acquainted with the equipment
- Tutorial classes are conducted for each subject
- Alternate Day Tests are specified for the students
- Extra remedial classes are provided for students who need extra effort
- An on-line attendance provision is managed and regularly updated. This ensures that parents/guardians are alerted of the students' regularity in each class.
- Regular interaction done with students by department and subject teacher
- Closed-camps' are conducted to prepare the students for their final exams



Kathmandu Engineering College, Department of Mechanical Engineering would like to wholeheartedly welcome all the visitors. Engineering education has been increasingly challenging prospect. The challenge of being a good engineer to innovate and contribute for the society is an uphill task. It's very important to realize that the credential achieved at the end of the education duration, arguably suffice the prospect. It's more about the process involved during the duration that betters a good student to a competent engineer.

Kathmandu Engineering College, understanding the necessity, cultivates a unique and inspirational model that focuses on building proper educational background along with realization of supplementary practical works that includes recent technologies and development.

Our department comprehends the need of learning in educational progress of students. We help student learn as well as grow to be the best version of them. The motivated faculty members further help in the growth by assisting the inquisitive minds, directing them

on progressive career paths. All the faculty members are constantly using innovative methods of teaching and constantly updating their knowledge on emerging trends. The faculty's constant endeavor is to provide strong background to our students in the related areas of engineering so that they are capable of adopting new technical skills and developing various projects.

We build the basic of engineering education for all faculties of KEC by offering courses as Fundamentals of Thermodynamics and Heat Transfer, Engineering Drawing I and II, Workshop Technology, Power Plant Equipment, Energy Environment and Society, Building Services III. Our conviction and effort has been materialized by the best results achieved by students in the courses.

On behalf of Department of Mechanical Engineering, I would like to express gratitude to the management committee, the faculty members, all the department, laboratory instructors, supporting staff, visiting faculty and the students for their co-operation. They have all helped us to achieve the best possible results.



## Department of Mechanical Engineering

**Er. Manchan Tiwari**

HOD / Senior Lecturer

Department of Mechanical Engineering

e-Mail: manchan.tiwari@keckist.edu.np



Architecture

## WHAT IS ARCHITECTURE?

Architecture shapes our lives. Architecture, as such, is the art of creating and the science of constructing the built environment. Architecture involves the general process of conceptualization, drawing generation, structural consideration, detailed estimate and construction to achieve an ultimate physical form. Architecture comprises a broad array of associated applications as in conservation, planning, interior and landscape designing, product and furniture designing, construction management etc. Architecture is thus an interdisciplinary field that surpasses the conventional boundary between Science, Art and Management. Architecture, in today's context, is the most essential tool for nation building.

## IS ARCHITECTURE FOR YOU?

Architecture attracts the most creative minds in the world. It is the most diverse and fun filled subject that also holds a reputation for quick job placements. Essentially, the following basic aptitude ensures that you are a good fit for architecture:

- Imaginative, creative yet logical mind-set
- Aptitude of verbal and graphic expression
- Zeal for art, drawing and designing

## CAREER OPPORTUNITIES

Our country is in urgent need of technical manpower for achieving the national priority of reconstruction. We are in a need of trained architects to build safe, strong and comfortable buildings and sustainable infrastructure. Architects can choose from a wide range of career options: in private and government agencies, planning and conservation projects, housing and real estate, interior design, commercial, institutional and industrial establishments.

## WHY CHOOSE ARCHITECTURE AT KEC?

The Department of Architecture at KEC has been delivering the best academic records amongst all architectural colleges of Nepal. Each year, we attract exceptional students from all around Nepal and hone them into socially responsible professionals. The department is run by a variegated team of educators, scholars and professional architects who value excellence in teaching, research and knowledge dissemination. The inspiring academic environment, well to standards infrastructure and the meticulous course works make the students competitive enough to work anywhere in the world. Each year our alumnae get placed into the top colleges and Universities of the world for postgraduate studies. With the record of 100% job placements and continued academic excellence, Architecture at KEC is definitely the ultimate choice.

## RESOURCES

- Well equipped Classrooms and Design Studios as per standards
- Use of Multimedia for lectures, presentations and demonstrations
- Computer Lab facility, High speed wi fi Internet
- Reference section within the Department

## PARTICIPATION / ACTIVITIES

- Winners of 3rd and 4th Asian Paints All Nepal Architecture Students' Design Competition
- Recipient of "Nepal ChhatraBidhyaPadak – Bachelor Level" under Engineering Faculty, IOE, TU of 2070 and 2073 BS
- Winner of Birla White "Yuvaratna" Jury Appreciation Award 2018, India
- Winners of Redevelopment of DhaneshworNathMahadev Temple Complex Design Competition 2017
- Archiving the drawings and documentation of heritage buildings

- Winners in Post-Earthquake National level Low Cost Housing Design Competitions
- Winner, ARCASIA Students' Architectural Design Competition, Thailand and Hong Kong
- Annual Asian Paints Architecture Student Award Design Competition
- Participation in Annual Convention of the National Association of Students of Architecture(NASA), India
- Participation in SAARCH Conference
- Internship in selected national as well as foreign countries
- Guest lectures from various renowned national as well as international professionals
- Winners of Speech Contest in 1stEthics Symposium 2017 organized by Rotary International
- Recipient of Best Student Award – 2073 amongst all universities awarded by Society of Nepalese Architects (SONA)
- Participation in Seminars and workshops organized by professional societies, academic institutions, commercial and manufacturing companies
- Inter/ Intra College Design Competitions/ Sports Competitions, winners of the same
- Exhibitions, Cultural Performances, Social Awareness Activities



## Semester Topper's **QUOTE**

“ Dreams should always be bigger but the journey of pursuing the dream is never easy. ”

My achievement as an architecture student is also the sheer result of my hardwork and the genuine and proper guidance of my friends, family and colleagues. Words fall short to explain how much the guidance of KEC meant to me in my endeavors. KEC has always helped to pave the path of success for me through lectures , seminars and other curricular activities by bringing the best out of me in every possible way. I would like to thank the institute for proper guidance and support in helping me pursue my dream.

**Anil Kunwar**  
B.Arch. 2<sup>nd</sup> Year  
2073/03



“ Enrolling at KEC has been of the best investment, I have ever made ”

I really appreciate how the college emphasizes on co-curricular and extra-curricular activities, creating a wholesome educational experience that caters to my interest as a learner. The excellent team of architecture faculty, provides interactive environment for us students and helps to multiply our potentials. Also, the positive vibe around the college keeps the students motivated. To sum up, always be open enough to seize an opportunity presented to you.

**MAHIMA SHRESTHA**

B.Arch IV 4<sup>th</sup> Year  
2072/24



## Department of Architecture



### **Ar. Kailash Shrestha**

B.Arch., Master's Program Infrastructure  
Planning, Germany  
HOD / Associate Prof.  
Department of Architecture  
e-Mail: kailash@keckist.edu.np

Department of Architecture at KEC has a wonderful teaching learning environment. The department emphasizes on education not only through fundamental classes but also through various activities including learning through interactions, presentations, analytical researches and extensive group works.

The department is always committed towards overall development of our students. We encourage and support our students to participate in various design competitions and events to explore their talents and innovations. The department has an energetic students' body, Association of KEC Architecture (AKAR) which organizes various programs in association with the department.

Our graduates are working in various national as well as international organizations. They are not only getting hundred percent employment but also have successfully occupied various important positions within and outside the country. Moreover, many of our students have got the opportunity to pursue their higher education

in various prestigious international universities. One of the major aspects of our education system Department of architecture is to focus towards the social responsibility, addressing the local context and supporting our national priority of reconstruction. The Department has been dedicated to producing capable and qualified architects who are contributing in developing our society.

## B. Architecture

# CURRICULUM

### 1st Year / Part

- 1.1 SH 404 Engineering Mathematics I  
 CE 402 Applied Mechanics  
 AR 401 Basic Design I  
 AR 402 Introduction to Architecture  
 AR 403 Building Material I  
 AR 404 Drafting I  
 AR 405 Free Hand Sketching I
- 1.2 SH 454 Engineering Mathematics II  
 AR 451 Drafting II  
 AR 452 Basic Design II  
 AR 453 Arts and Graphics  
 AR 454 Building Construction I  
 AR 455 Free Hand Sketching II  
 CE 452 Basic Skill Workshop

### 2nd Year / Part

- 2.1 AR 504 Building Construction II  
 AR 503 Building Materials II  
 AR 506 Building Science I  
 AR 501 Design Studio III  
 AR 502 History of Architecture I  
 CE 507 Structure I  
 AR 505 Design Theory I
- 2.2 AR 554 Building Construction III  
 AR 555 Design Theory II  
 AR 551 Design Studio IV  
 AR 552 History of Architecture II  
 CE 557 Structure II  
 CE 558 Surveying

### 3rd Year / Part

- 3.1 AR 604 Building Construction IV  
 CE 607 Building Service I  
 EE 604 Building Service II  
 AR 601 Design Studio V  
 AR 602 Contemporary Architecture  
 AR 603 Computer Aided Design and Drafting  
 AR 605 Working Drawing
- 3.2 AR 651 Design Studio VI  
 CE 659 Estimating Costing  
 AR 652 Urban Settlement Planning  
 CE 657 Structure III  
 SH 652 Sociology  
 SH 653 Building Economics  
 CE 658 Specifications  
 AR 653 Building Science II

### 4th Year / Part

- 4.1 AR 701 Practicum
- 4.2 AR 751 Architectural Conservation  
 AR 752 Design Studio VII  
 AR 753 Construction Management  
 SH 754 Communications  
 AR 765 Elective I  
 CE 761 Structure IV  
 ME 760 Building Services III

### 5th Year / Part

- 5.1 AR 801 Seminar and Directed Studies  
 AR 802 Design Studio VIII  
 AR 803 Landscape Design and Site Planning  
 AR 825 Elective II  
 AR 805 Professional Practice  
 AR 806 Thesis Proposal
- 5.2 AR 851 Thesis

Architecture involves multi-disciplinary process of conceptualization, drawing generation, structural consideration, detailed estimate and construction to realize an ultimate physical form.



Civil



## ABOUT CIVIL ENGINEERING

The word “engineering” stands for the application of scientific, economic, social, and practical knowledge in order to design, build and maintain structures, machines, devices, systems, materials and processes.

Civil engineering is considered a pioneer subject in the field of engineering. Civil engineers have been around ever since humans started building major public structures such as roads, bridges, tunnels and buildings. The discipline includes planning, design, construction, maintenance and operation of infrastructures that surround us, and which underpin our society. Civil engineering branches into environmental engineering, geotechnical engineering, structural engineering, transportation engineering, municipal or urban engineering, water resource engineering, materials engineering, coastal engineering, surveying and construction engineering.

## CAREER SCOPE

Civil engineers have many roles to play in the various sectors that concerns deteriorating infrastructure, natural disasters and constantly-updating technologies. A civil engineer’s career covers sectors such as planning, management, research, design, consulting and the construction of all development projects, as well as teaching. There are a broad range of opportunities in the government and semi-government sectors. The choice depends on one’s individual interest.

## KEC FOR CIVIL ENGINEERING EDUCATION

The Department of Civil Engineering at KEC is working rigorously to conduct all academic activities smoothly. The department’s strength is its 17 full-time and more than 25 part-time and visiting faculty members, which include assistant lecturers, lecturers,

senior lecturers, professors as well as other professionals and experts.

Our academic buildings and labs are all located within the city’s commercial area, although they are situated at a safe distance from the main street to ensure that noise and air pollution, as well as other forms of disturbance do not affect our students. The department regularly arranges guest lecturer, organize talk programs and seminars

with the involvement of noted academicians, professionals and experts on all concerned matters to enhance the learning process among students.

Several academic field visits like geology site visits, hydrology field works, irrigation field visits, hydropower field visits, transportation field visits and survey camps are arranged by the department to help inculcate practical knowledge, as well as to aid students in the process of synchronizing these skills with their theoretical knowledge. In addition to regular courses, students are also trained to use softwares related to the civil engineering sector.

## PARTICIPATION

The Department of Civil Engineering at KEC encourages its students and teachers to be involved in various seminars and trainings with reputed organizations. Some of our teachers have acted as noted resource-persons in national and international workshops and symposiums.

## ELECTIVE COURSES

KEC offers the choice of ELECTIVE COURSES in the most relevant subjects in the final year of their study: Elective I, II and III are all topics of their choice. The subjects offered are:

- Solid Waste Management
- Structural Dynamics
- Suspension Bridge
- Advanced Geotechnical Engineering
- Traffic and Transport Modelling
- Environmental Impact Assessment
- Rock Slope Engineering
- Finite Element Methods
- Hill Irrigation
- Traffic Engineering and Planning
- Design of R.C.C. Bridge
- Rock Engineering (for hydropower development)
- Urban Planning
- GIS and Remote Sensing
- Construction Safety Management
- Environmental Management System
- Design of Earthquake resistant structure





## Semester Topper's **QUOTE**

“ I am glad to achieve this success and be the part of KEC family ”

After joining KEC, I learnt that future depends on how we invest our time today. The respective department has played an important role in enhancing my performance. Hardware always pays off so believe in hard work, be self-confident and have a faith in yourself opportunities don't happen, you create them. I find that the harder I work, the more luck I seem to have.

**Ronit Khadgi**

BCE 1<sup>st</sup> Year

2075/54

“ I am proud and humbled to be a part of KEC ”

A prominent and student- friendly engineering institution of the country.KEC provided me with a nurturing and creative environment where I found a platform to improve my skills in numerous domains and gain knowledge on variety of subjects matter.Being a part of KEC , I am getting wholesome eperience to estavlish myself as a better person. I am able to see a clear path infront of me regarding my career due to KEC .Without building a house myself, as a civil engineer, I found a home in KEC itself..

**Mokshya Rajya Laxmi Devi Pradhan**

BCE 3<sup>rd</sup>Year  
2073/47



# Department of Civil Engineering



**Er. Arjun Poudel**

HOD / Senior Lecturer

Department of Civil Engineering

e-Mail: arjun.poudel@keckist.edu.np

First of all congratulations for being enrolled into one of the best engineering school of the country. Welcome to the Department of Civil Engineering, as I would like to reiterate the fact that civil engineering is the most preferred and happening engineering course in the developing country like ours. I intend to present you with the general information on our vision, mission of undergraduate programs, research activities, facilities, and the special programs available to you only in this department.

Our vision is to be number one in civil engineering education measured on the basis of quality and reputation. Our mission is to educate individuals to become the leaders of the profession. The program emphasizes interdisciplinary team work, communication skills, tools and skills for professional ethics and the value of service to their profession and society through involvement in community, state and national organizations.

We offer a distinguished program of undergraduate study and creative research in selected areas of bridge, hydropower, rural water supply,

structure and transportation engineering. Our research program also provides multidisciplinary collaborative research with other faculties a well. Last but not the least, I would like to invite you to browse our website and feel free to contact me for any queries and information. I appreciate your interest, look forward to your involvement with us and we will certainly meet in the classroom.

# Civil Engineering CURRICULUM

## 1st Year / Part

- 1.1 SH 401 Engineering Mathematics I  
 CT 401 Computer Programming  
 ME 401 Engineering Drawing I  
 SH 403 Engineering Chemistry  
 ME 402 Fundamentals of  
 Thermodynamics & Heat transfer  
 ME 403 Workshop Technology
- 1.2 SH 451 Engineering Mathematics II  
 ME 451 Engineering Drawing II  
 EX 451 Basic Electronics Engineering  
 SH 452 Engineering Physics  
 CE 451 Applied Mechanics  
 EE 451 Basic Electrical Engineering

## 2nd Year / Part

- 2.1 SH 501 Engineering Mathematics III  
 CE 501 Applied Mechanics (Dynamics)  
 CE 502 Strength of Materials  
 CE 503 Engineering Geology - I  
 CE 504 Surveying – I  
 CE 505 Fluid Mechanics  
 CE 506 Civil Engineering Materials
- 2.2 CE 551 Theory of Structure - I  
 CE 555 Hydraulics  
 CE 554 Surveying - II  
 CE 552 Soil Mechanics  
 SH 552 Probability and Statistics  
 AR 556 Building Drawing  
 CE 553 Engineering Geology - II

## 3rd Year / Part

- 3.1 SH 603 Numerical Methods  
 CE 601 Theory of Structure II  
 CE 602 Foundation Engineering  
 CE 604 Survey Camp  
 CE 606 Engineering Hydrology  
 CE 605 Water Supply Engineering  
 CE 603 Concrete Technology and  
 Masonry Structures
- 3.2 CE 651 Design of Steel and  
 Timber Structure  
 SH 651 Communication English  
 CE 652 Building Technology  
 CE 655 Engineering Economics  
 CE 656 Sanitary Engineering  
 CE 653 Transportation Engineering I  
 CE 654 Irrigation and  
 Drainage Engineering

## 4th Year / I Part

- 4.1 CE 701 Project Engineering  
 CE 702 Design of RCC Structure  
 CE 703 Transportation Engineering II  
 CE 704 Hydropower Engineering  
 CE 705 Estimating and Costing  
 CE 725 Elective I  
 CE 707 Project (Part I)
- 4.2 CE 751 Computational Techniques in  
 Civil Engineering  
 CE 752 Engineering Professional Practice  
 CE 753 Technology Environment and  
 Society  
 CE 754 Construction Management  
 CE 755 Project (Part II)  
 CE 765 Elective II  
 CE 785 Elective III

Civil Engineering is considered the mother of all other forms of engineering. Engineers use their knowledge of science and logic, as well as all appropriate experience to solve different problems.



Electrical

## WELCOME TO THE DEPARTMENT OF ELECTRICAL ENGINEERING

Electrical Engineering has a huge impact on the technologies that define modern-day life and society. We are proud of the in depth analytical treatment, and the specialized optional subjects we offer within our program at Kathmandu Engineering College (KEC). We have more than 20 professional faculties- including visiting professors from the Institute of Engineering (IOE).

The mission of the department is to promote technical excellence in Electrical Engineering by offering programs to produce engineers with dynamic, well-rounded personalities, adaptable to ever-increasing demands of emerging technologies involving analytical and practical skills.

KEC's Department of Electrical Engineering was established to cater to the rising demand for engineers to work in the area of power systems, renewable energy technology and industrial applications. The department has well-equipped laboratories to train the students in different areas of electrical systems. Frequent field visits to power stations, manufacturing and other industries are regularly conducted by the department. It is mandatory for students to participate in these visits and present field reports as part of their assignments.

## WHAT IS ELECTRICAL ENGINEERING?

Electrical Engineering is concerned with the design, research, development, planning, manufacturing and management of electrical systems and devices which are required to facilitate the needs of modern, developed societies. Electrical engineers design, develop and supervise the manufacturing of electrical systems and devices. Particularly, they focus on the generation, transmission and distribution of electrical power, their control and protection system.

## IS ELECTRICAL ENGINEERING FOR YOU?

If you are interested in any of the following area, then you may enjoy a career in Electrical Engineering:

- Working with power generation, transmission and distribution.
- Deal with machines and control systems
- Making things work electrically
- Working with alternative and renewable energy

## CAREER OUTCOMES

Studying Electrical Engineering will lead you to potential careers in power industry, manufacturing industry, renewable energy sector and traction systems. Electrical engineers in Nepal work for the Nepal Electricity Authority (NEA) and different ministry departments under the Nepal Government. Besides the career as an entrepreneur is very popular amongst electrical engineers.

## ANNUAL MAGAZINE

Our department publishes an annual magazine called 'Synergy' that incorporates articles and synopses of projects done by our fourth year students. This is an effort in making our students participate in literature reviews and research so that they can expose themselves to wider avenues.

## LIST OF ELECTIVES

- Electric Energy System Management
- Rural Electrification
- Neural Networks
- Micro-Hydro Power
- Advanced Power System
- Biomedical Instrumentation
- Reliability Engineering
- Applied Photovoltaic Engineering
- Wind Energy Conversion System

## LABORATORY WORKS ON

- Electric Circuit Lab
- Electric Machines Lab
- Instrumentations and Control system lab
- Switchgear and Protection lab
- Power Electronics Lab
- Electric Drives Lab
- Power Plant Equipments Lab



## Semester Topper's **QUOTE**

“ Choosing a right path  
always leads a man  
towards something  
bigger and better ”

A good foundation plays a vital role in anyone's career. For me KEC has done the same .Right from the very beginning, the friendly environment provided here has enabled me to excel in my studies.The love and support from faculty members, teachers and the staffs played such an amazing role to enhance my capabilities.Also , yoga and meditation here at KEC has helped everyone to believe in good and thereby do good.I feel really very happy and blessed to be a KECIAN.

### **Pallavi Khanal**

BEL 1<sup>st</sup> Year  
2075/07  
IOE Topper





“ The dream of seeing myself as an engineer made me come to Kathmandu engineering college ”

The teachers has always been so cooperative and always been available to provide me the necessary ideas and material for my academics as well as all round development. As I have completed almost 3 years of my journey I have been able to explore myself and find a new every day.

**Pallavi Ghimire**

BEL 3<sup>rd</sup> Year

2073/11

4<sup>th</sup> Semester IOE 2<sup>nd</sup> Topper



## Department of **Electrical Engineering**



**Er. Binod Bhandari**

HOD / Lecturer  
Department of Electrical Engineering

The Department of Electrical Engineering has recorded consistent improvement in its academic, research and placement performance. We make several strategies and plans and implement them to transform young incoming students into competent electrical engineers which are constantly updated to meet the changing requirement of the energy industry. We have well equipped and efficiently running labs for Power plant equipment, Switchgear and Protection, Electrical Circuits and Control systems, Electrical Machines and Instrumentation. Separate rooms dedicated for projects, mini projects and other workshop is helping our students with practical knowledge. We feel pleasure to mention that our graduated students are working in many reputed company, Government offices and some are pursuing further degree in highly esteemed universities in US and other countries.

Our students from electrical department run "Electrical Club" which launch annual technical magazine and conducts basic workshop for first year students .We also encourage students to

organize various events such as Talk program about contemporary technical issues, participate in technical competitions organized by other colleges/institutions and also get involved in activities of social relevance where they have earned a magnificent triumph.

The curriculum, approved by Institute of Engineering, is taught by a distinguished faculty combining academic excellence and real world experience with dedication and commitment. The teaching module comprises lectures, tutorials and practical. The methodology adopted in the classroom teaching is based on application of innovative strategies, comprehensive lectures, regular assignments and interaction between teachers and students. We do not leave any stones unturned to inspire our students to independently formulate their opinion on every matter that concerns.

At last I would like to welcome all the prospective students to the Department of Electrical Engineering at Kathmandu Engineering College and cherish for lifelong experience.

# Electrical Engineering CURRICULUM

## 1st Year / Part

- 1.1 SH 401 Engineering Mathematics I  
 CT 401 Computer Programming  
 ME401 Engineering Drawing I  
 SH 402 Engineering Physics  
 CE 401 Applied Mechanics  
 EE 401 Basic Electrical Engineering
- 1.2 SH 451 Engineering Mathematics II  
 ME 451 Engineering Drawing II  
 EX 451 Basic Electronics Engineering  
 SH 453 Engineering Chemistry  
 ME 452 Fundamental of Thermodynamics  
 Workshop Technology

## 2nd Year / Part

- 2.1 SH 501 Mathematics III  
 CT 501 Object Oriented Programming  
 EE 501 Electric Circuit Theory  
 EE 502 Electrical Engineering Material  
 EX 501 Electronic Devices & Circuits  
 EX 502 Digital Logic  
 EX 503 Electromagnetics
- 2.2 EE 551 Electrical Machine I  
 SH 553 Numerical Method  
 SH 551 Applied Mathematics  
 EE 552 Instrumentation I  
 EE 555 Power System Analysis I  
 EX 551 Microprocessor

## 3rd Year / Part

- 3.1 SH 601 Communication English  
 SH 602 Probability and Statistics  
 EE 602 Control System  
 EX 602 Instrumentation II  
 EE 605 Power System Analysis II  
 EE 603 Electric Machine Design  
 EE 601 Electrical Machine II
- 3.2 CE 655 Engineering Economics  
 EE 652 Digital Control System  
 EX 651 Signal Analysis  
 EE 651 Switchgear and Protection  
 EE 653 Industrial Distribution & Illumination  
 CE 660 Hydro Power

## 4th Year / Part

- 4.1 CE 701 Project Engineering  
 ME 708 Organization and Management  
 CE 708 Technology Environment and Society  
 EE 701 Power Electronics  
 EE 702 Utilization of Electrical Energy  
 EE 725 Elective I  
 EE 703 Power Plant Equipment  
 Project (Part A)
- 4.2 CE 752 Engineering professional Practice  
 EE 751 High voltage Engineering  
 EE 753 Power Plant Design  
 EE 754 Transmission & Distribution design  
 Elective II  
 Elective III  
 Project (Part B)

Electrical engineers design, develop and supervise the manufacturing of electrical systems which focus on the generation, transmission and distribution of electrical power.



Computer

## WHY CHOOSE COMPUTER ENGINEERING AT KEC?

As a student of computer engineering at Kathmandu Engineering College (KEC) you will study computer architecture, software engineering, object oriented analysis & design, microprocessor-based design, embedded systems and applied algorithms. In addition to a broad background in mathematics, physics, and chemistry, this curriculum gives you solid foundation in both hardware and software design. Microprocessors, object-oriented programming and artificial Intelligence are some of the technologies you will during the course of four years.

## COURSE AND WORK

Employers prefer applicants who already have relevant skills and experience. Those workers who keep up-to-date with the latest technology usually have good opportunities for advancement. The bachelor's degree program at KEC involves 55 courses including subjects like programming, system analysis & design, compiler design, computer architecture, project works and field visits, among others.

Computer engineers analyze, design, and evaluate computer systems, both hardware and software. They work on systems such as a flexible manufacturing system or a "smart" device or instruments. Computer engineers often find themselves focusing on problems or challenges which result in new state of the art products, which integrate computer capabilities. They work on the designing, planning, developing, testing, and manufacturing of computer hardware.

The major work sectors for computer engineers are:

- Computer Design/Chip Design/Networking/Hardware Technician
- Programmer/System Analyst/Application Programmer/Electronic Data Processing Manager/Enterprise Resource Planning
- Database, Webmaster, Web Designer,
- E-Commerce, M-Commerce
- R&D, Production, Servicing, Sales & Marketing, Teaching.

Major organizations which recruit computer engineers include: Verisk Information Technologies Pvt. Ltd., Deerwalk Services Pvt. Ltd., Yomari Pvt. Ltd., F1Soft International Pvt. Ltd., Link Tree, Brain Digit IT Solution Pvt. Ltd, Cloud Factory, Leapfrog Pvt. Ltd., World Link Technologies, Mercantile Communications Pvt. Ltd., Nepal Telecom, NCell and government services along with software development companies established by our own graduates.

## WORKING ENVIRONMENT

The field of computer engineering is constantly growing and changing due to the rapid pace of technological advancements. It is important, therefore, that professionals are continuously improving and learning new things to stay on top of all new developments. Thus, to stay updated, computer engineers are required to attend training seminars created by vendors, hardware and software manufacturers, colleges and universities, or other private institutions.

## RESOURCES

Our department makes sure that our students graduate with competitive knowledge and skill nurtured with high moral and professional ethics. These goals and objectives are supplemented by following resources and facts:

- 14 Full time faculty members; 20 Visiting Faculty
- 7 Supporting Staffs
- Internet Access
- 4 High Performance Computer Labs
- 2 General Purpose Computer Labs
- CISCO and Internet Lab
- Text books for whole semester / Notes and Handouts are given.
- Microsoft Students Partnership
- IT Club
- OKRP for Research and Publication

- MOU agreements with different Software Companies
- Internship Placements

## PARTICIPATION

Computer Engineers find jobs in manufacturing industries; professional, scientific, technical and services industries primarily in architectural, engineering and related services. All these jobs require high level of expertise. So, we at the Department of Computer Engineering not only focus on what is included in the course and curriculum, but also in co-curricular activities that enable the growth of expertise and efficiency. These activities include:

- Software Projects in mobile devices
- Microsoft Students Partnership Program
- IT Club
- Participation in National/ International level of Hardware/ Software Competitions such as Aakriti, Dristi and LOCUS
- Research and Paper Publication by Office of KEC Research and Publication.
- Field Visits and Educational Tours.





Semester Topper's  
**QUOTE**

“ After IOE exam, I  
was indecisive about  
choosing the college ”

I used to think Pulchok campus was the best . But after I enrolled in KEC. I came to know it doesn't really matter .Having one year of experience, I had a very good studying environment with teacher.

**Rasil Maharjan**

BCT 1<sup>st</sup> Year  
2075/60



“ I feel proud to be  
KECIAN ”

It provides fascinating environment with humble teachers and staffs providing quality education with motivation. Many of life's failure are people who did not realize how close they were to success when they gave up. So, push your limit, do the things that other say you can't in such a way that your failure will definitely change to successful. So, don't be last in first. Remember success is most often achieved by those who didn't know that failure is enevitable. So, fall , wake, run believe and achieve.

**Lok Bahadur Chhetri**

BCT 2<sup>nd</sup> Year

2074/35

# Department of Computer Engineering



**Er. Sudeep Shakya**

HOD / Associate Professor

Department of Computer Engineering

e-Mail: [sudeep.shakya@keckist.edu.np](mailto:sudeep.shakya@keckist.edu.np)

The Department of Computer Engineering has been committed to provide the most pragmatic & highest quality education to fulfill the demand of engineering education to the nation & the world from its date of establishment.

We have a strong conviction that the pragmatism should be the basic philosophy behind the modern teaching & learning processes. Our department is always committed to provide high quality education with highly qualified, well-experienced, adequately trained & updated enough to adopt an innovation & latest technology faculty members to guide & motivate the students to make their future bright.

Our department is committed to facilitating excellent research programs that veer on the cutting edge. We focus our resources onto selected research areas to ensure an output of world-class research. We are fortunate to have many talented faculties and staff members who are extremely dedicated to their work in terms of both teaching & research.

Since the beginning, our Department has been adopting latest teaching methodology, which follows interactive lectures, student presentations,

case studies, power point presentation on individual & group projects, seminars, participatory group discussions & practicum's. Our department also encourages the students to participate in many events to expose their talents & innovation to the public & concern authorities. The students of our department are very versatile and dynamic. They have active participation in numerous extracurricular activities like software / hardware competitions, paper presentations, talk programs etc organized by various colleges and universities nationwide. Our students also are actively involved in various clubs like: Robotics Club, Electronics Project Club, IT Club etc. Our students are also affiliated with the Microsoft through Microsoft Students Partner (MSP) Program.

It would not had been possible to reach this position today without the guidance and the help of several individuals who in one way or another contributed and extended their valuable assistance in the functioning of our department. On behalf of the Department of Computer Engineering, we would like to expresses sincere thanks to all the experienced faculty members, college management, dedicated staffs & support and the research team for providing their effort to achieve the department's goals& objectives.



# Computer Engineering CURRICULUM

## 1st Year / Part

- |     |        |                               |
|-----|--------|-------------------------------|
| 1.1 | SH 401 | Engineering Mathematics I     |
|     | CT 401 | Computer Programming          |
|     | ME 401 | Engineering Drawing I         |
|     | SH 402 | Engineering Physics           |
|     | CE 401 | Applied Mechanics             |
|     | EE 401 | Basic Electrical Engineering  |
| 1.2 | SH 451 | Engineering Mathematics II    |
|     | ME 451 | Engineering Drawing II        |
|     | EX 451 | Basic Electronics Engineering |
|     | SH 453 | Engineering Chemistry         |
|     | ME 452 | Fundamental of Thermodynamics |
|     | ME 453 | Workshop Technology           |

## 2nd Year / Part

- |     |        |                                  |
|-----|--------|----------------------------------|
| 2.1 | SH 501 | Engineering Mathematics III      |
|     | CT 501 | Object Oriented Programming      |
|     | CT 502 | Theory of Computation            |
|     | EE 501 | Electric Circuits Theory         |
|     | EE 501 | Electronics Devices and Circuits |
|     | EX 502 | Digital Logic                    |
|     | EX 503 | Electromagnetics                 |
| 2.2 | EE 551 | Applied Mathematics              |
|     | SH 553 | Numerical Method                 |
|     | SH 552 | Instrumentation I                |
|     | CT 554 | Electrics Machines               |
|     | CT 551 | Discrete Structure               |
|     | EE 552 | Data Structure and Algorithm     |
|     | EX 551 | Microprocessor                   |

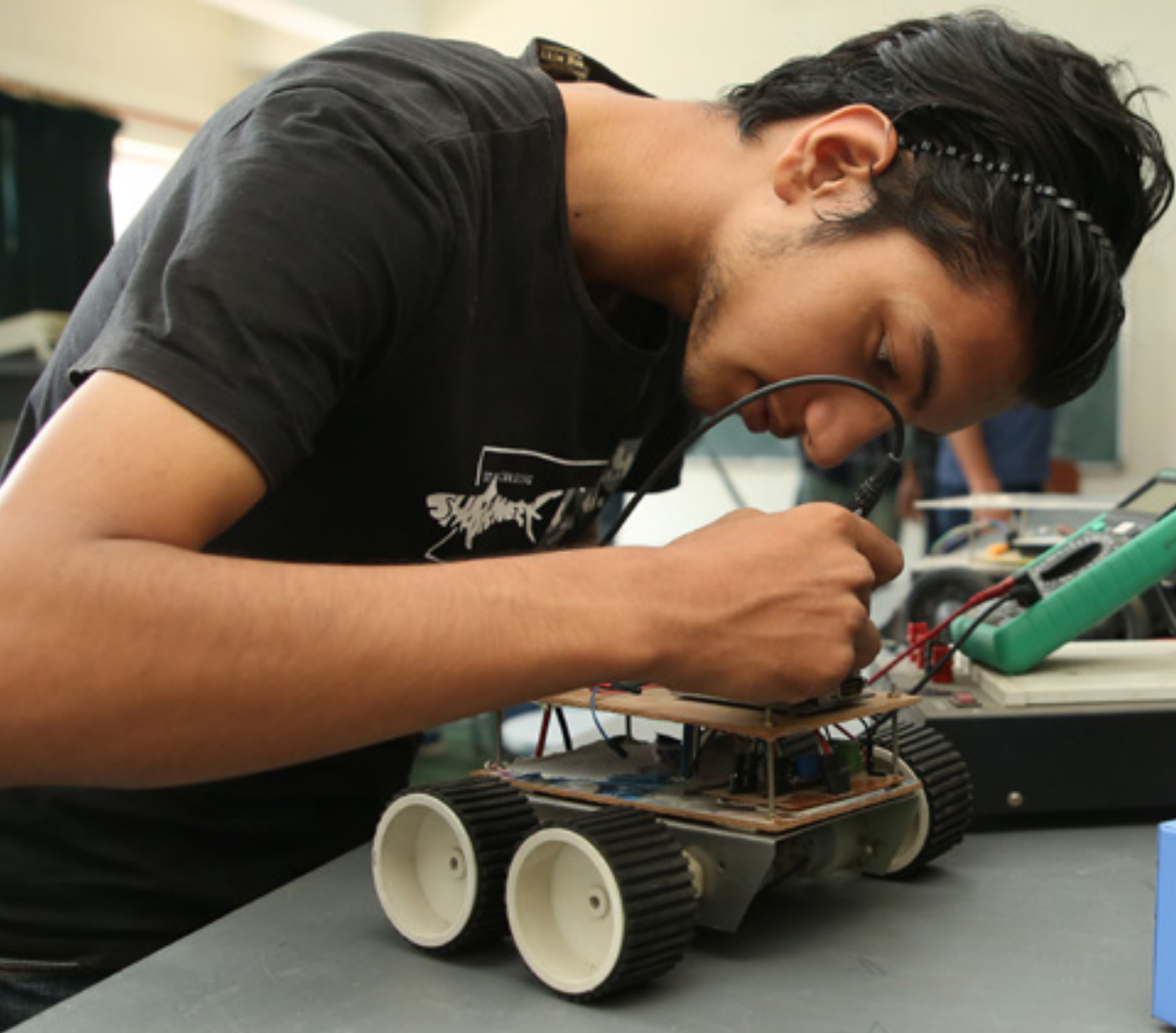
## 3rd Year / Part

- |     |        |                                      |
|-----|--------|--------------------------------------|
| 3.1 | SH 601 | Communication English                |
|     | SH 602 | Probability and Statistics           |
|     | CT 601 | Software Engineering                 |
|     | CT 602 | Data Communication                   |
|     | EX 602 | Instrumentation II                   |
|     | CT 603 | Computer Organization & Architecture |
|     | EX 602 | Instrumentation II                   |
|     | EX 603 | Computer Graphics                    |
| 3.2 | CE 655 | Engineering Economics                |
|     | CT 651 | Object Oriented Analysis and Design  |
|     | CT 652 | Database Management System           |
|     | CT 653 | Artificial Intelligence              |
|     | CT 655 | Embedded System                      |
|     | CT 656 | Operating System                     |
|     | CT 654 | Minor Project Engineering            |

## 4th Year / Part

- |     |        |                                      |
|-----|--------|--------------------------------------|
| 4.1 | ME 708 | Organization & Management            |
|     | EX 701 | Energy Environment & Society         |
|     | CT 701 | Project Management                   |
|     | CT 702 | Computer Networks                    |
|     | CT 703 | Distributed Systems                  |
|     | CT 704 | Digital Signal Analysis & Processing |
|     | CT 725 | Elective I                           |
|     | CT 707 | Project (Part A)                     |
| 4.2 | CE 752 | Engineering Professional Practice    |
|     | CT 751 | Information Systems                  |
|     | CT 753 | Simulation and Modelling             |
|     | CT 754 | Internet and Intranet                |
|     | CT 765 | Elective II                          |
|     | CT 785 | Elective III                         |
|     | CT 755 | Project (Part B)                     |

Computer engineering; the process of analyzing and designing all hardware, software, and operating systems; is a combination of two fields: computer science and electrical engineering.



# Electronics Communication & Information Engineering

## WHAT IS ELECTRONICS COMMUNICATION AND INFORMATION ENGINEERING?

The Bachelors in Electronics Communication and Information Engineering program at KEC is designed to provide students with a strong theoretical and practical foundation in electronics technologies such as telecommunications, radio and TV broadcasting; and in communications engineering, industrial electronics and instrumentation and systems analysis computer science.

The program is a combination of electronics communication and information engineering, management and computer science. It focuses on the systems of communication, electromagnetic fields, microprocessors, electronic circuits and systems, computers, automatic controls, systems integration, signal processing and information system.

## WORKING ENVIRONMENT

Department of Electronics Communication & Information Engineering, of Kathmandu Engineering College (KEC) has a dynamic and versatile team of highly qualified, talented and experienced teachers with international exposure dedicated to impart quality education. Besides running the syllabus prescribed by IOE, TU, the department is committed to help students overcome challenges and to facilitate an encouraging environment. We offer extensive programs like field visits, projects, guest lectures, seminars and technical exhibitions, for students. We also give relevant trainings in Field Programmable Gate Array (FPG) and Latex to support projects and encourage to take part in competitions. KEC has partnered with various international linkages to enhance the skills and personality of students.

Our department's alumni have been working successfully in various national and international organization like Nepal Telecom, NCell, Nepal Television, Kantipur Television, Radio Nepal, Huawei, Samsung, Yomari etc. We are eager to take this legacy one step further with you.

## RESOURCES

KEC's Department of Electronics communication and information Engineering is one of the largest department as per the number of faculty members, lab facilities and student enrollment. Electronic communication and information engineers are constantly innovating new technology to make gadgets better, cheaper and sustainable. It is the discipline that impacts communication, commerce, entertainment, manufacturing, healthcare, transport, energy, environment and the future in general.

Our department is proud to be a center that is dedicated to teaching through research in Nepal and worldwide. We have a strong local and global presence built through our relationship with different industries. On campus, the department is able to offer outstanding results through our team of researchers, dedicated support staff and talented student community.

Our specialization modules are constantly evolving to take advantage of new technologies and our research discoveries. Fourth-year students can choose from topics like Biomedical Instrumentation, Remote Sensing, Human-centered robotics, speech processing, sustainable energy, VLSI etc. We are excited about the future, people and technology. The department is committed to developing engineers with the necessary skills, knowledge and imagination.

## PARTICIPATION

Our faculty members and students have participated in various international student exchange programs, seminars, technical exhibitions and competitions in national and international level. They have won various titles and prizes in numerous software and hardware competitions. Various research units and clubs such as OKRP, Robotics Club, Electronics Project Club are available in the college to enhance faculty and students' potential in the field of research.

Best Student's Project Works

1. Dronacharya, the best Drone project exhibited in LOCUS 2017
2. Agriculture Robots.
3. Weather Station and Data Logging.
4. Brain Controlled Robots.
5. Smart Speed Vehicles.

## LIST OF ELECTIVES OFFERED

### Elective I

- Advanced Java Programming
- Data Mining
- Embedded Systems Designs Using Arm Technology
- Image Processing and Pattern Recognition
- Web Technologies and Applications
- Operating System
- Radar Technology
- Satellite Communication
- Biomedical Instrumentation
- Aeronautical Telecommunication

### Elective II

- Agile Software Development
- Networking with IPV6
- Advanced Computer Architecture
- Big Data Technologies
- Optical Fiber Communication System
- Broadcast Engineering
- Information Systems
- Database Management Systems

### Elective III

- Multimedia System
- Enterprise Application Design & Development
- Geographical Information System
- Power Electronics
- Remote Sensing
- XML : Foundations, Techniques & Applications
- Artificial Intelligence
- Speech Processing



## Semester Topper's **QUOTE**

“ What comes easy won't last and what lasts won't come easy ”

I came across this inspirational quote at a very young age and has since been embedded into my subconsciousness .This has inspired me to work hard relentlessly to achieve something remarkable. It has always been my dream to become an engineer. I realized, in order to do that I had to commit myself to work extra hard and leave no stories unturned. But, it was also important that I picked the right institution where I could achieve my goal. For, me that institution was KEC.

I consider myself grateful to be a part of this institution whose faculty members have guided and inspired me in every step along the way in my pursuit of knowledge and skill required to be an engineer. What sets this college apart from other engineering institutions is its commitment to help students become a better version of themselves. Whether it be through frequent guidance and counseling sessions or spiritual cleansing methods such as meditation and yoga, Kec has always cared about the wellness of its students.

**Samrakshan Karki**

BECIE 1<sup>st</sup> Year

2075/21

“ Every student has a dream of achieving quality education ”

In my quest of attaining it I found KEC as a bright platform which helped me to nurture my hidden potentialities with productive teaching and learning styles. Strong dedication of teachers concerning about the upliftment of the students has really outcome extraordinary results. ECAs on top of that, provided as in the form of seminars, orientation and practice sessions by different associated clubs like EPC, Robotics, IT and so on has helped the students grow potentially out of course content and has made them competitive in the global market of quality engineers. Good environment within the college has provided better accomodation facilities to the students. Yoga classes has helped the students to relieve their physical and mental pressure. With a better library, students are able to access knowledge from different books and other sources like web facilities that the college has been providing. I would really feel as a cheerful person being a part of this educational institution.

**Jeevan Sapkota**

BECIE 4<sup>th</sup> Year

2072/26



# Department Of Electronics Communication & Information Engineering



**Er. Sagun Manandhar**

HOD/ Associate Professor  
Department of Electronics Communication &  
Information Engineering  
e-Mail: [sagun@keckist.edu.np](mailto:sagun@keckist.edu.np)

The 21st century is a perfect blend of Electronics and Computer Engineering, to enhance technology in the digital world. Electronics Engineering helps to enhance the hardware knowledge. On the other hand Computer Engineering enhances the software knowledge.

The Department of Electronics Communication & Information Engineering has been committed to provide the most pragmatic and highest quality education to fulfill the demand of modern engineering to the nation and the world from its date of instituting. Our ex-students have been working in many reputed companies like Nepal Telecom, Ncell, Radio Nepal, Kantipur Television, Samsung etc. Similarly, our students have also been working in many private organizations. Many students have got opportunity to pursue their higher education in foreign countries. This has been possible because of the teaching methodology adopted by our department. We have a strong conviction that the pragmatism should be basic philosophy behind the modern teaching and learning procedure. Our department is always committed to provide high quality education with highly qualified, well experienced, adequately trained & updated enough to adopt an innovation and latest modern technology faculty members to guide and motivate the students to make their future bright.

Our department is committed in fabricating excellent research programs that veer on the cutting edge

technology. We focus our resources onto selected research areas to ensure an output of world-class research.

Since the establishment, our department has been adopting latest teaching methodology, which follows interactive lectures, students' presentations, case studies, power point presentation on individual & group projects, seminars, participatory group discussion & practicums. Our department also encourages the students to participate in many events to expose their talents & innovation to the public & concern authorities. The students of our department are very versatile and dynamic. They have active participation in numerous extracurricular activities like hardware/software competitions, paper presentations, talk programs etc. organized in various colleges and universities nationwide. Our students also are actively involved in various clubs like: Robotics Club, Electronics Project Club etc. Our students are also affiliated with the Microsoft Students' Partner (MSP) program.

It would not had been possible to reach this position today without the guidance and help from several individuals who in one way or another contributed and extended their valuable assistance in the functioning of our department. On behalf of the Department of Electronics and Communication Engineering, we would like to express a sincere thanks to all the experienced faculty members, college management, dedicated staff & support crew and the research team for providing their effort to achieve the department's goal and objective.

# faculty members

## DEPARTMENT OF ARCHITECTURE

Name	Designation
Ar. Kailash Shrestha	HOD / Associate Professor
Ar. Moon Singh Dongol	Dy. HOD / Associate Professor
Ar. Chand Shamsher Rana	Department Advisor / Associate Professor
Ar. Shailita Manandhar Joshi	Vice Principal / Associate Professor
Ar. Sweta Shrestha	Associate Professor / 4th & 5th year Co-ordinator / Thesis Co-ordinator
Ar. Subash Phuyal	Senior Lecturer / 2nd & 3rd Year Coordinator
Ar. Suchita Bajracharya	Senior Lecturer / 1st year coordinator
Ar. Pratibha Manandhar	Senior Lecturer / Exam Representative
Ar. Pranita Sharma Pandey	Associate Professor
Ar. Anjana Shrestha	Senior Lecturer
Ar. Sagun Maharjan	Lecturer
Ar. Bindu Shrestha	Associate Professor (study leave)

## DEPARTMENT OF ELECTRICAL ENGINEERING

Name	Designation
Er. Binod Bhandari	HOD / Lecturer
Er. Bhuwan Dhamala	Lecturer / Dy. HOD
Prof. Dr. Indra Man Tamrakar	Department Advisor / Associate Professor
Mr. Chitra Bdr. Khadka	Lab Chief
Er. Manoj Raj Dhungana	Lecturer / Exam Representative
Er. Harish Bhandari	Lecturer / 3rd & 4th year coordinator
Er. Sunil Karki	Lecturer / Project Coordinator
Er. Baijnath Agrahari	Lecturer / 1st & 2nd year coordinator
Er. Nirmal Aghari	Asst. Lecturer
Er. Anjan Adhikari	Asst. Lecturer

## DEPARTMENT OF CIVIL ENGINEERING

Name	Designation
Er. Arjun Poudel	HOD / Senior Lecturer
Er. Ramesh Kaphle	Dy. HOD / Senior Lecturer
Er. Shiva Prasad Koirala	Associate Professor (on leave)
Er. Ishwar Adhikari	Associate Professor
Er. Bimal Bhattarai	Associate Professor
Er. Bikash Raj Joshi	Senior Lecturer / Exam Representative
Er. Shishir Rijal	Lecturer / Lab co-ordinator
Er. Tirtha Karki	Lecturer / 3rd year co-ordinator
Er. Rajan Nemaphuki	Lecturer / 4th year coordinator
Er. Harshikesh Kumar Karna	Lecturer / 2nd year co-ordinator
Er. Sunil Rakhali	Lecturer / 1st year coordinator
Er. Sumit Shrestha	Lecturer
Er. Suddhan Lamichhane	Lecturer
Er. Nimesh Karki	Lecturer
Er. Sandeep Bhandari	Lecturer
Er. Albert Dahal	Lecturer (study leave)
Er. Aalok Sarma Kafle	Lecturer (study leave)

## DEPARTMENT OF COMPUTER ENGINEERING

Name	Designation
Er. Sudeep Shakya	HOD / Associate professor
Er. Kunjan Amatya	Dy. HOD / Associate professor
Er. Mahesh Singh Kathayat	Advisor / Associate Professor
Er. Shree Krishna Sulu	Associate Professor / Dy. Exam Chief / Exam Representative
Er. Sharad Chandra Joshi	Associate Professor / 4th Year Co-ordinator
Er. Shyam Dahal	Senior Lecturer / Hostel Warden
Er. Nabin Neupane	Senior Lecturer / 3rd year co-ordinator
Er. Anju Khanal	Lecturer / Major Project Co-ordinator

Er. Reshma Maharjan	Senior Lecturer / 1st year Co-ordinator
Er. Sharad Neupane	Senior Lecturer / 2nd year coordinator
Er. Sapana Thakulla	Lecturer/ Minor Project Coordinator
Er. Bishon Lamichanne	Asst.Lecturer
Er. Bishwo Raj Kaphale	Senior Lecturer (on leave)

## DEPARTMENT OF ELECTRONICS COMMUNICATION AND INFORMATION ENGINEERING

Name	Designation
Er. Sagun Manandhar	HOD / Associate Professor
Er. Anmol Ratna Bajracharya	Dy. HOD / Research co-ordinator / Associate Professor
Er. Ganesh Gautam	Associate Professor
Er. Rajan Lama	Associate Professor / Chief G & C Unit
Er. Suramya Sharma Dahal	Associate Professor / Research co-ordinator/ Exam Representative
Er. Smriti Nakarmi	Senior Lecturer / 2nd & 3rd year co-ordinator
Er. Pushpa Dhamala	Senior Lecturer
Er. Ravi Poudel	Lecturer / 1st & 4th year coordinator
Dr. Dipen Manandhar	Lecturer / Major Project coordinator
Er. Gaurav Gautam	Lecturer / Lab Coordinator
Er. Sujan Shrestha	Lecturer/ Minor Project Coordinator
Er. Rubi Kumari Mahato	Lecturer
Er. Dhawa Sang Dong	Lecturer
Er. Sarina Barahi	Asst. Lecturer

## DEPARTMENT OF APPLIED SCIENCES

Name	Designation
Mr. Subash Pokhrel	HOD / Associate Professor
Mr. Shankar Parajuli	Dy. HOD / Lecturer
Mr. Bed Prasad Pandey	Associate Professor / Monitoring Cell Member

Mr. Anjeeb Lal Shrestha	Exam Chief / Associate Professor
Mr. Shanta Kharel	Associate Professor / Yoga Teacher
Mr. Yadab Gaire	Lecturer
Mr. Dev Raj Khatri	Lecturer
Mr. Yogendra Parajuli Thapa	Lecturer
Ms. Anjana Bhele Shrestha	Lecturer
Mr. Sushant Dahal	Lecturer
Mrs. Bhawana Devkota	Associate Professor (on leave)
Ms. Swastika Lama Yonjan	Lecturer
Mr. Suman Raj Pandey	Lecturer (study leave)

## DEPARTMENT OF MECHANICAL ENGINEERING

Name	Designation
Er. Manchan Tiwari	HOD / Senior Lecturer
Dr. Lila Raj Koirala	Associate Professor
Er. Krishna Prasad Acharya	Senior Lecturer
Er. Yagya Prasad Gaire	Lecturer
Er. Bishal Pudasaini	Asst.Lecturer
Er. Ashmin Aryal	Lecturer (study leave)



# staff

Name	Designation	Name	Designation	Name	Designation
Mrs. Bijeta Poudel	Senior Account Officer	Mrs. Srijana Chaulagain	Library Assistant	Mr. Bholu Karki	Sr. Office Supporter
Mr. Keshab Shrestha	Lab Incharge	Mrs. Sita Poudel	Office Assistant	Mr. Ram Krishna ThapaMagar	Sr. Office Supporter
Ms. Bhumika Khatiwada	Librarian Officer/ Co-ordinator	Mr. Shriram Dhakal	Junior Office Assistant	Mr. Pibar Ale Magar	Sr. Office Supporter
Mrs. Gita Sharma	Librarian Officer	Mrs. Sangita Shrestha	Junior Account Assistant	Mr. Tulsiram Ghartimagar	Office Supporter
Mr. Rajesh Dhakal	Administrative Officer	Mrs. Nirmala Ghimire	Junior Office Assistant	Mrs. Sarada Khadka	Office Supporter
Mrs. Binita Koirala	Junior Admin Officer	Mrs. Sangita Shrestha	Junior Office Assistant	Mr. Om Bdr. Suryabanshi	Office Supporter
Mrs. Amina Joshi	Junior Admin Officer	Mr. Dharma Dutt Lamichhane	Junior Office Assistant	Ms. Saraswoti Khadka	Office Supporter
Mrs. Ranjita Thapa	Junior Account Officer	Mrs. Patrika Adhikari	Junior Office Assistant	Ms. Samita Neupane	Office Supporter
Mr. Niranjan Dhungana	Junior Account Officer	Mr. Naresh Pradhan	Junior Office Assistant	Mr. Sobit Poda	Sr. Janitor
Mrs. Gita Acharya Gautam	Junior Librarian Officer	Mrs. Ratna Wagle	Junior Librarian Assistant	Mr. Ajit Pujari	Sr. Janitor
Mr. Dil Bahadur Adhikari	Senior Admin Assistant	Mrs. Nis Maya Lama	Hostel Incharge	Mr. Karan Poda	Sr. Janitor
Mr. Umesh Man Pradhan	Sr. Hardware Technician	Mrs. Ticchya Chand	Junior Office Assistant	Mr. Ushma Poda	Janitor
Mr. Shir Bahadur Suryabanshi	Senior Office Assistant	Mr. Dipendra Karki	Junior Office Assistant	Mrs. Muni Poda	Janitor
Mr. Rajendra Man Singh Bhandari	Chief Lab Incharge	Mr. Bhagwan Thapa	Junior Office Assistant	Mr. Rajan Poda	Janitor
Mr. Prabin Yadav	Sr. Lab Instructor	Mr. Bhim Prasad Ghimire	Junior Office Assistant	Mr. Rojesh Dewala	Janitor
Mr. Nabin Pokharel	Lab Instructor	Mrs. Laxmi Kharel	Junior Office Assistant	Mr. Ganesh Bdr. Khatri	Sr. Security Guard
Mr. Sudhir Kumar Singh	Lab Instructor	Ms. Ranjita Bhandari	Junior Office Assistant	Mr. Ram Chandra Awale	Sr. Security Guard
Chandra Mal Kami	Lab Assistant	Mr. Subarna Maharjan	Sr. Driver	Mr. Dutman Magar	Security Guard
Mr. Sanam Pariyar	Junior System Administrator	Mr. Ganesh Kumar Poudel	Driver	Mr. Shankar Khadka	Security Guard
Mr. Anil Shrestha	Lab Instructor	Mr. Buddhi Ram Chaudhary	Driver	Mr. Basudev Rijal	Security Guard
Mr. Manish K.C.	Lab Instructor	Mr. Ganga Lal Shrestha	Driver		
Mr. Dhana Prasad Ghale	Lab Instructor	Mr. Anjan Shrestha	Jr. Driver		
Mr. Shrijan Man Nakarmi	Lab Instructor	Mr. Samden Lama	Lab Boy		
Mr. Jitendra Shrestha	Lab Instructor	Mr. Shyam Dhungel	Sr. Electrician		
Mr. Dirga Raj Blon	Lab Instructor	Mr. Shankar Maharjan	Sr. Gardener		
Mr. Deepak Raj Upreti	Lab Assistant	Mr. Dil Bahadur Ranjitkar	Maintenance		
Mrs. Padma Lamichhane	Information Assistant	Mr. Krishna Bahadur Tamang	Maintenance		
Mrs. Sharadha Panthi	Library Assistant	Mr. Mukunda Prasad Gautam	Maintenance		
Mr. Mahesh Raymajhi	Lab Assistant	Mrs. Purna Maya Shrestha	Sr. Cleaner		
Mrs. Urmila Dahal	Library Assistant	Mr. Buddha Rai	Sr. Office Supporter		

# life at KEC

## EXAM SECTION

KEC has a centralized Examination Section that looks after all tests and examination within the college. Its main task is to conduct examinations, coordinate with IOE's central examination centre and to keep academic records of the students.

## ASSESSMENT/EXAMINATIONS

Periodical Tests/Unit Tests: Tests are conducted on a regular basis in the form of end-of-chapter tests and unit tests. Students have to appear for all these tests. Their scores add onto the final internal marking.

## PROGRESS REPORT

KEC regularly monitors its students individually. The faculty prepares progress reports on the basis of Alternate Day Test (ADT), assignments, attendance and class performance. These reports are distributed to the students' guardians twice: during the middle of the semester and at the end of the semester.



## YOG AND DISCIPLINE

KEC values discipline and expects so from its students. To instill discipline (physically, mentally, socially and spiritually) in them, we practise compulsory yoga sessions which includes Asanas, Pranayama, Yog-Nidra and Meditation. For this we have a full-time yoga expert with us. Our experience shows that yoga has cultured positive thinking, the value of hard work and patience, along with good memory power amongst our students and faculty members. Apart from these benefits, yoga sessions have also helped students improve their physical health and helped them with problems like neck, back pain, eye problems and insomnia.

**Shanta Kharel**  
Yoga Teacher

## MY YOGA EXPERIENCE

Learning and practicing yog has certainly been one of the highlights of my first year in engineering. its not that I was first introduced to yog here,I have learned it before but then it never made much difference to me. looking back I think what I lacked all those times was Discipline and probably a good teacher. Discipline, in the sense that, discipline to do it regularly ,properly with the right technique and our teacher has certainly made Yog fun and effective all the way.

The most noticeable and sure change that yog brought in me was in the mental aspect .it is no secrete that yog helps build the mind and its capacity .I felt more focused throughout the year. it brought a lit of positivity in me too and kept me in a good headspace .the exercise we did certainly helped as I feel less angry, energetic and controlled then the past. This made direct impact in my studies too. studying for a long time in easy. It has helped me set a goal much higher then my previous result.

Yog has also helped me in the physical aspect of my body. thought it may be a small change ,it is

not insignificant . looking at me it may not seen that way but I lost four kgs of weight in the last month alone and, I guess, that is just the start. I do some exercise and jogging in the morning and yog has helped increase my stamina for it. sometimes ,I kept looking forward to yog on the most boring days so that it would start my days on a positive way. or sometimes, after night more of study and less sleep, I looked forward to, shamelessly, sleep in the 'sabasana' period of the yog. Nevertheless, it has been fun.

The other and most surprising benefit I found from Yog was the learning of skills, culture and manners. Our teachers has given us great lectures that has made me, sometimes, question my own behavior and beliefs. we have learned so much about our culture, and traditions this year. it may have been the videos we watched or the words of wisdom that has helped in this. we have learned our duties towards our family. friends and ourselves. so, in a sense, I can say it has taught us the art of life. The changes may seem exaggerated or a figment of my imagination but I have felt it none theless. these are all positive changes and I will take them without a second thought. I will continue to do so.

**Rajendra Joshi**  
( BCT )

Changes that yog bring to me,  
Before joining yog class I easily get high tempered on small things. but now I really don't care about these small things I think yoga helps me to do things like that, my behavior changed a little sit. I always remain calm. It increased my muscle heribility. it increased concentration power which helps me a lot in focusing studies rather then other things. More importantly I did not visit any hospitals that entire winter, before medicines for common cold and all that respiration \breathing exercise helps me a lot.

**Udeep Narayan Bist**  
(BCE 'B')



Entering at KEC I as happy to know about the yog classes .After attaining 1 year regular course of yog, I found many chages in me which chages my life and daily habit . Practicing yog make a habit peaceful sleep, as I was able to manage the anger .The meditation , listening power and some unseen and some unexpressed good habits are the beneficial of the daily yog in KEC.

### **Dinesh subedi**

B.Arc, 1st / Year

The Pleasant 50 Minutes Yog- a process adapted by KEC for almost a decade now. As others I started practicing meditation and “Aashana’s” from the first semester for a year urging myself for self-realization and focusing on the changes caused by the Aashana’s.

There were no absolute athletics required; just some postures, breathing techniques with a gentle closed eyes and a gentle focus on the midway between your eyebrows with a gentle smile. It is as simple as that! I found it as a replenishment that requires no effort and not much time. It really is a tool for self-engineering and a wonderful program for the students.

### **Yuvraj Karki**

BEL, 1st / Year

Everyone would definitely ask if there is a need of such yoga classes for students like us. Yoga, deep inside everyone of us imagined old people doing some kind of awkward postures, except very few exceptions,and so did I.

Before I got engaged in yoga, I thought it is a total waste of time, well, at least for an engineering students. But when I took the Happiness course/ YES+ course, I realized various aspects of life, which I never thought of, and learnt the way to prospect and handle it in the better manner. The feeling after doing the Vastrika(a kind of breathing

technique) and Sudarshan-kriya in Art of living course was just speechless. It felt like I was born with a blank fresh mind with a vibrating body. And it is still the same.

Then to talk about the regular yoga classes in college, it felt like a shower to my body. I was washing and rinsing and cleansing inside. Great heat developed. Like purification. My body changed from being kind of dense and tense to being more flexible and spongy. A certain calm and ease would come over both my mind and body after a class. The combo of Suryanamaskar (a kind of warmup exercise for me) and the Savasana(a relaxation technique) was my favorite and it felt awesome.

Don’t misunderstand. Yoga is not the only technique/ exercise that can relax and purify your mind. This is one of the many kinds we can do to keep our mind and body fresh, healthy and relaxed. But yoga is definitely the easiest and the fastest approach for the relaxation. So, I would definitely recommend everyone to get engaged in yoga, atleast once.

### **Lucky prajjwal shrestha**

Electronics

## **JOB PLACEMENT SERVICES**

KEC’s job placement service works as a bridge between the world of work and the economic environment. We help students make a successful transition from college to work. The college helps students and graduates obtain positions in line with their specific interests and needs. Over the past two years, we have placed a number of students in reputed organizations and shall continue these efforts in the years to come.

## **SPORTS**

KEC believes that different types of extracurricular activities help students mentally and physically, and adds to their all-round efficiency. We encourage students to get involved into some kind of sporting activity. We organize sports weeks within the college, and support intra-college competitions.

At present we have following facilities:

- Football
- Basketball
- Badminton
- Cricket
- Volleyball
- Table- Tennis
- Chess

## **INTERNET FACILITIES**

The college has created two Wi-Fi zones within its premises: the Library and the Canteen, exclusively for students. Students can surf the internet and broaden their knowledge even during recess.

## **INFORMATION CENTER**

The KEC Information Centre has been established for the sole purpose of giving ample information to students, parents, guardians and to anyone who wants to know about KEC. It is an information archive where everyone can be updated on day-to-day activities of the college.

## **SURVEY CAMP AND FIELD VISITS**

Third year civil students carry out a 10 days survey camp in accordance with their subjects. This field work simulates the actual field condition for the execution of detailed topographical survey. Students of Architecture, Electronics, and Computer and Electrical departments also carry out field visits which help them grasp their subject matter practically.

## HOSTEL (BOYS)

KEC runs its own hostel, equipped with modern facilities. It has a good security system, comprising of a warden, guards and service personnel.

Facilities provided at the KEC boys' hostel are:

- 14 Rooms of various sizes and the total capacity is for 40 students
- Room and Bed option: single, double, triple and quadruple.
- Each student is given a closet, table, bed and chair.
- Mess with hygienic food at reasonable price.

## HOSTEL (GIRLS)

Pupils who are from outside the valley or live in the outskirts of Kathmandu can avail of hostel facilities near the campus.

KEC has its own girls' hostel. The hostel has a great ambience and is perfect for study and concentration. It is well-equipped with an impeccable security system comprising a warden, a guard and service personnel.

Facilities provided at the KEC girls' hostel are:

- Room capacity is 35, with various room sizes.
- Room and bed options: double, triple and quadruple

## TRANSPORTATION

KEC has its own fleet of buses available. They are used on college days and also made available for site visits, survey camps, researches, participations etc.

## STATIONERY / PHOTOCOPY CENTER

A shop that supplies stationery materials for studies and practical courses is available inside the college premises. It also has facilities like photocopy, printing, lamination and book binding.

## SPACIOUS LIBRARY

The library at KEC has a collection of text books, reference books, journals, newspapers, magazines and course/ lab manuals for engineering courses provided by the college. Newly published books are regularly added to the library. Currently, the library accommodates over 60,000 course/reference books and course/lab manuals. In KEC, All library functions take place in accordance to library rule and regulation.

KEC also has a separate section for periodicals and other learning resources including newsletters, magazines and research manuals. Students can borrow course/reference books and course/lab manuals from the library under library rules.

KEC library also has an e-learning facility as an online resource. The library uses a Library Automation Software for smooth functioning. The software keeps bibliographical records of documents and patrons details.

## CAFETERIA

The KEC-Cafeteria serves breakfast, lunch, snacks and bakery products at reasonable costs. It serves hygienic food in several tastes.

## GUIDANCE AND COUNSELING

The guidance and counseling of students is an essential component of the educational mission of Kathmandu Engineering College (KEC). Guidance and counseling services and programs promotes the social, educational, and career development of all students. This unit looks after the welfare of the students, collectively as well as individually. KEC understands that students go through a lot of stress during their bachelor's courses, which requires correct and prompt action for the student's well being. Guidance & Counselling also looks over various aspect of the student through three different sub-units.

### i. Academic Counseling

The Academic Counselor looks after the academic activities of the students, guiding them towards academic excellence.

### ii. Physical Fitness Counseling

The Yoga Guru or Yoga Counselor Mr. Shanta Kharel looks after the overall physical as well as mental fitness of the students.

### iii. Psychological Counseling

The Psychological Counselor looks after those students who are finding it hard to cope with their education, or are depressed or frustrated with daily life. The counsellor helps them with utmost care giving them the confidence to break through their problems.

After the completion of their high school education, students of bachelor's level find themselves in an open environment where they have to face complex problems such as stress, anxiety, frustration, difficulties in adjustment, low self esteem, and in more severe cases, depression and drug addiction.

The Guidance & Counseling Unit at KEC looks over all these problems through personal and psychological mediums, and also by providing students the opportunity of physical development through yoga and meditation. The mission of this unit is to support the college in achieving academic goals by assisting students with personal challenges that interfere with their academic progress. Professional, psychological, confidential counselling and physical exercise and meditation through Yoga are made available to all students who are in need.

This Unit encourages students to focus on their overall developmental needs which may include academic, personal, physical, interpersonal or social growth. Beside these, this unit also arranges different program such as "The Art of Living", Shasamadhi-Meditation. These Super learning trainings aim to support and promote the lifestyle of the students.

### Er. Rajan Lama

Associate Professor / Chief,  
Guidance and Counseling Unit

## BENEFITS OF COUNSELLING

During exam, I can't study due to various problems. I think, I can't do anything further. There are lot of problems arises during exam time also. I was afraid that I can't give 100% in my exam. Due to the help of counseling, I feel better and I can appear my exam. Today I become a successful Engineering. The whole credit goes to the members of KEC especially the department of counseling. Counseling is the best treatment to make our mind cool and it give strength to solve the problem in proper way. So when we feel afraid, alone and depress, counseling helps to overcome the problem.

### Civil

My concept and understanding was totally different after counseling session. Due to some activities in teenage hood I started to suffer mentally which badly affects my study, behavior and daily life style. I wasn't able to take the decision of my life. But after getting counseling session from Pratima Mam I was able to lift my spirit. Also she encouraged me to prove with what I want to do. After sharing my problem with her I realized that I couldn't use my feeling as excuse while searching for right way and every time we can't be loyal to other in my case. I guess my life is different now. I found many positive things. Pratima Mam has strong character. She was kind and gentle to me but her words were firm when she spoke.

### Architecture I/II



# associations, clubs & societies



## MICROSOFT STUDENT PARTNER (MSP) WITH KEC

The Microsoft Student Partner (MSP) program is an educational and promotional program that sponsors undergraduate and postgraduate students majoring in disciplines related to technology; typically computer science, computer information systems, and information technology. The MSP program enhances students' employability by offering training in skills not usually taught in academia, including knowledge of Microsoft technologies.

In Nepal, the program is conducted through Microsoft Innovation Centre (MIC) located at Khichapokhari, Kathmandu. Along with the MSP program, MIC has been actively hosting events like the Appathon, Ideathons and Hackathons for students to showcase their technical skill and develop solutions for various problems in the country. The Imagine Cup is one of the biggest international events for game developers and MIC Nepal has provided the students in Nepal the opportunity to attend this event in Seattle, USA. Basically, MSPs are the ambassadors of Microsoft for their respective college. Thus, they act as mediators between Microsoft and their college.



## FREE STUDENTS' COUNCIL

The Free Student Council (FSC) is a body of student representatives with the primary objective of bringing the management and students to work in harmony. The council acts as a mediatory between the students and the college administration. The council works hard to organize events such as DRISTI, Welcome and Farewell programs. FSC also organizes training programs, spiritual wellbeing programs and sports week. FSC is a student run initiative that works for the students to develop a friendly campus.

**Purna Bahadur Khadka**  
President

## KEC ELECTRICAL CLUB

KKEC Electrical Club, founded on February 2016, is a flourishing club of KEC. It is a common ground for the electrical engineering students to aspire towards a better understanding of the field. The club organizes various activities like: workshops, software simulation trainings, talk programs and the publication of the annual magazine SYNERGY.

List of the Events

1. Talk show program on 'Hydropower development in Nepal'
2. First phase technical workshop
3. Proteus Simulation training
4. Launch of SYNERGY 2017 and Talk show on 'Challenges Before Nepal's Power Engineers'

**Arun Raut**  
President



## ROBOTICS CLUB

Robotics is a branch of science that integrates various fields of engineering, such as electronics, electrical, computer and mechanics; and crafts a machine which resembles human character.

The Robotics club of Kathmandu Engineering College (KEC) is a student-run club founded on 2005 AD by energetic and enthusiastic seniors solely out of their passion for Robotics. Robotics Club has been the harbinger in bringing the knowledge and technology of Robotics in KEC.

Our goal is to bring students together to promote the study and practice of robotics and inspire youth to pursue STEM fields through robotics related activities both on and off campus. We have been conducting various workshops and competitions like Circuit Synthesis and Robo Drift. We have designed and built various robots, all which have represented KEC in various competitions. We have been winning the Robocup organized by Pulchowk Campus, Institute of Engineering for two consecutive years and we have also won the Robotics Competition organized at BIT, Ranchi, India.

**Sajesh Adhiraki**  
President  
Robotic Club



## ELECTRONICS PROJECT CLUB (EPC)

Electronics Project Club (EPC) is an open platform for students and electronic enthusiasts in Kathmandu Engineering College, Kalimati, established in 2011. The club aims to provide basic trainings and workshops with electronic equipment, specification on hardware/software design and maintenance, workshops on Embedded System Design, Automation and Autonomous Robotics.

The club believes in learning through experience and that moving ahead with it is the best way for dealing with the perspectives of increasingly complex world. Thus, throughout the year the club has been actively participating and organizing several events and is striving to move forward. Recently EPC conducted the grand robo-battle "Kuruksheetra", which was one of the main events in Dristi 2.0. We also conducted Hardware Exhibition, Workshop on etching and Circuit Etching and Fabrication Competition.

The club seeks to connect the members with the massive community of electronics project enthusiasts in our country, mainly within engineering colleges. "Let's make, lets innovate."

**Raju Sharan**  
President



## AKAR (ASSOCIATION OF KEC ARCHITECTURE)

The oldest and independent body of KEC architecture students, AKAR is known for its active involvement and participation in various academic and non-academic programs.

AKAR provides platform for its students to expose and to sharpen their creativity through exhibitions, workshops and interactive programs.

List of Events by AKAR in 2075/2076

1. Architectural Interaction Session at St. Xavier College: Shrawan 12, 2075
2. Orientation For 1st Year Students: Kartik 30, 2075
3. Orientation and Interaction Session for 1st Year: Mangsir 8, 2075
4. LTI (Learning Through Interaction) for 2nd Year on Case Study and Literature Review: Mangsir 12, 2075
5. Phy-Ex: Mangsir 22, 2075
6. Mani Privilege Card Distribution: Poush 13, 2075
7. Welcome and Farewell Programme: Poush 13, 2075
8. Website of AKAR Launched: Poush 13, 2075
9. Book Review Session III: Poush 27, 2075
10. Women Lead Session: Public Speaking: Baisakh 27, 2076
11. LTI for 2nd Year: Presentation Skill: Jestha 3, 2076
12. LTI: Drafting
13. VIS (Visual Interaction Session): Jestha 15, 2076
14. T-Shirt Design Competition
15. College Environment Enhancement Project 2.0 (CEEP): Jestha 22, 2076
16. Meet The Architects: "A For Architects": Jestha 30, 2076
17. Dristi Exhibition 2.0: Ashad 20-23, 2076
18. Meet The Architects: Ar. Kei Weise: Ashad 27, 2076

**Aayush Shrestha**  
President, Arch. 5th Year



## KEC IT CLUB

KEC IT Club is a student organization that facilitates students with the opportunity to learn about latest technology in the computer sector. The main purpose of this club is to share ideas in the IT sector with encouragement for the collaboration allowing students to understand the potential and future of software industry as a whole. The Club assists student working on various projects and organizes workshops on different programming languages, conducted with by the members of IT club or through collaboration with different Software Industries.

This club recruits active and willing volunteers and members, even from the non IT field to participate in their activities. The club was active for the recently conducted Dristi 2.0, majorly organizing the Kshitiz for Alumina of Computer Department to share their experiences about entrepreneurship and career options where guests were from various established software companies invited to give their views that helped students to know about what they need to do in their future. Furthermore, Hackathon, Software Exhibition and GameFest were our major events during Dristi. The club not only organizes but takes part in various national and international events like TechFest, Locus, KU IT Meet, Everest Hack, AID, DevCircles and many other fields involving software and hardware technologies in company with attending Seminars and Convocation for improved UI/UX, together with application of artificial Intelligence and refined machinery and automation.

**Sunim Acharya**  
President  
KEC IT CLUB





## KEC ALUMNI ASSOCIATION

The Kathmandu Engineering College Alumni Association (KECAA), established in 2060 B.S., aims to bring together all the graduates of the college to build mutual friendship and understanding among its contemporaries.

It also looks forward to promoting good relationships with national as well and international organizations; creating an environment which in itself encourages fellow members to share their knowledge, thereby helping each other to grow.

## CESA-KEC

Civil Engineering Student's Association (CESA) is a non-profit oriented and non-politically influenced association of Civil Engineering students, KEC, Kalimati. Any civil engineering student can be a member of CESA. Students supporting CESA can also become members.

CESA involves participation of students in various academic, non-academic and entertainment programs. CESA sharpens the student's brain through various programs like: workshops, talk programs, exhibitions, competitions etc.

Following are the list of events conducted by CESA-KEC.

- Talk programs on various related topics.
- Workshop on Civil 3D, AutoCAD, SAP etc.
- Art & Theme Based photography competition.
- Earthquake design competition.
- Stick Bridge Competition.
- Intra College CIVIL CUP.

### Resha Bashyal

President



## OFFICE OF KEC RESEARCH & PUBLICATION (OKRP)

OKRP was established on 1st January 2013. It envisions to explore research-based educational practices through conducting research activities on potential industrial issues, organizing seminars and talks on contemporary issues, arranging for publications of international journals, as well as of other professional materials including the official magazine, newsletters and occasional souvenirs. OKRP aims to foster the culture of research and writing among the KEC students and faculty members, and promote KEC's linkage with international intellectual communities. The continuation of the existing Journals and the official magazine contribute to gradually develop the culture of publication of the College.

## KEC JOURNAL OF SCIENCE AND ENGINEERING (KJSE)

### • Aims and Scopes

KEC Journal of Science and Engineering [KJSE] is a joint publication of the KEC Faculty of Electronics and Communications, Computer Engineering and Electrical Engineering. This journal publishes original, empirical and innovative research works for dissemination of knowledge in the field of science and engineering for the benefit of academics as well as practicing enterprises based on research and development [R&D].

### • Coverage

Within the boundary of the above-mentioned aims and scope, the journal covers a wide area of interest in the field of science and Engineering. In the backdrop of global scenario, local and regional issues are picked up on a systematic manner to help develop the insight into the scientific and engineering practices and theoretical underpinnings. Although the research papers are expected to be from local and regional authors, KJSE heartily welcomes authors from all over the world.



## H-HELP KEC

Helping Hands "An Effort to Lift People" (H-HELP) is a non-profit organization of KEC, engaged in various social services in a proactive way with a broad approach. It was established in 2004 by a group of enthusiastic and dedicated engineering students.

H-HELP is a platform to provide economic and social help to the needy and less privileged groups of our society. The members raise funds by conducting various programs throughout the year.

Some of the activities conducted by H-HELP are:

1. Welcome program for new members
2. Annual Charity Show
3. Blood Donation
4. Donation program Dupcheswor Madhyamik Bidhyalaya, Access to Child Rights, Shree Koshrang Adharbhut Bidhyalaya

### Bikram Poudel

President

## ROTARACT CLUB OF KEC

Rotaract Club of KEC, Bagmati is the social club of Kathmandu Engineering College established based on Rotaract Club of Bagmati, Zone IX. Rotaract Club of KEC, Bagmati was established in 2014 AD. The main objective of Rotaract club of KEC is to provide social services within college premises as well as outside college premises. We also bring different awareness program to help in overall personally development and active participation of students interested. Rotaract Club of KEC, also gives platform for idea from participation of students regarding social and educational services.

Rotaract has been continuously involved in various events within college premises and outside premises: They are listed below:

1. Donation Help for Eye Operation: Team of Rotaract club of KEC, Bagmati helped 52 years old Krit



## LEO CLUBS OF KATHMANDU MIRCAL

Bahadur Kunwar of Salyan district by collecting donation help from college students, staffs and teachers.

2. Slow Bike Race Competition and Traffic awareness: As accidents were increasing rapidly, we the team of Rotaract club of KEC, Bagmati organized slow bike race for rider within college with the involvement of small traffic team.
3. Cleanliness Drive Program: Every year Rotaract club of KEC, Bagmati bring cleanliness drive program within college and around college premises to maintain clean and healthy environment.
4. Warm clothes, blankets and mat for needy: In Kathmandu, during cold season many homeless and needy people were dying due to extreme cold. So, hearing news Rotaract club has collected donation and help those needy people.
5. Motivational and Awareness Quotes: Rotaract club of KEC, Bagmati has posted many motivational and awareness quotes all around the college spreading positive vibes.
6. Futsal for service: Rotaract Club of KEC, Bagmati has also organized futsal for helping childrens in orphanage.
7. TALENT HUNT Season 1 & 2: Taking in the consideration of hectic life of students, we organized Talent hunt involving students to showcase their talents. The money collected from the program tickets and sponsors were utilized for Charity.

**Siddhartha Shrestha**  
President

The Word "LEO" stands for leadership, experience, opportunity. LEO Clubs of Kathmandu Mircale Kathmandu Engineering College is working for encouraging student to develop leadership qualities by participating in social service activities project including caring for environment, feeding the hungry and aiding senior and the disable.

## YOUTH RED CROSS CIRCLE OF KEC

Youth Red Cross Circle of KEC is the club of youth volunteers of Kathmandu Engineering College who are highly dedicated to work for humanity. Youth Red Cross Circle was established in KEC in 2014 A.D. with the motto to mobilize the volunteers of KEC in different social activities. Along with this Youth Circle of KEC emphasize on creating opportunities for dynamic leadership and personality development too.

Youth Red Cross Circle of KEC is working as the sub branch of Nepal Red Cross Society. And hence "I serve" is the common motto. Youth Red Cross Circle of KEC works on its own programs and activity agenda, based on community needs and local resources. YRCC of KEC always prioritize on mobilization of youth volunteers of KEC in different humanitarian activities. Interested volunteers can also be mobilized to disastrous areas to serve the victims.

Youth Red Cross Circle of KEC also creates opportunity for its member to participate in different youth seminars, trainings on sanitation and hygiene, health camps and different personal development workshops. That is to say, this club also works for the personal skill development of youths of KEC.

The basic goals of Youth Red Cross Circle of KEC are as enlisted below:

- 1) Service to the community.

- 2) Promoting health and sanitation.
- 3) Participation of youth in humanitarian activities.
- 4) Development of leadership capacity and personal skills of youth.

Youth Red Cross Circle of KEC has conducted several programs in coordination with college administration and many are in our To Do list. Help and support from all kecian, teaching and non teaching staffs, and college administration always led us to conduct programs successfully. Youth Red Cross Circle of KEC works by coordinating with different academic clubs of the college and several other social clubs present in the college.



## KEC YOGA CLUB

Yoga is an integral part of KEC. For the best performance of students, faculty and staff, sound physical and mental health is a must. For this, KEC organizes various workshops on life skills and personality development through yoga and meditation. KEC Yoga Club has been organizing such events since its establishment on the auspicious occasion of the first International Yoga Day, on 21st June 2015. The club is common to KEC's faculty, staffs and students and aims at enriching teamwork and cooperation. The club highlights on the proven techniques about life, happiness and well-being that had been developed by ancient sages and verified by modern scientific researches in world renowned universities. Hope to see you all in those interesting programs. Stay Happy, Stay Healthy!





master plan



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