

HIMALAYA

COLLEGE OF ENGINEERING

(Affiliated to Tribhuvan University)



>> BE in Computer Engineering >> BE in Electronics, Communication and Information Engineering
>> BE in Civil Engineering >> Bachelor in Architecture >> BSc CSIT >> BCA





Message from the **CHAIRMAN**

Dear Students,

Himalaya College of Engineering (HCOE), Nepal, Affiliated to Tribhuvan University (TU), one of the most reputed private engineering college in Nepal, is proud of its many achievements as the leading developer of technical education for the students from diverse backgrounds, cultures and skill sets. We are among the few private academic institutions in engineering sector located in Kathmandu valley and the best suited for quality engineering education. Our vision is based on hard work, open communication, a strong emphasis on team work and a high level of responsibility. This visionary culture allows and emphasizes our wards not only to adopt the present day challenges but also individual responsibilities to the society and our nation at large. Learning should be based on doing things and not merely knowing things. Until and unless learning solutions relate to real life and motivate the learner to acquire and apply the knowledge, the whole process will remain superficial. Our institution has set specific objectives and planned activities for achieving excellence in all spheres of technical education.

Beyond providing a sound education, we wish to provide our students a holistic learning

experience for life. Our aim is to teach students to LEARN, not just STUDY. Hence, we strive to travel beyond the boundaries of mere books. We have realized that the future is abstract and unknown but the youth in our hands are real and can be molded. Our mission is to prepare you as nation-builders, movers of technology and the agents of change. The knowledge that you will gain, the fine qualities that you will imbibe and the technical skills that you will learn to apply will be your major contribution to your parents, to society, and to the nation. We create not the future instead we craft you for the future. The service of the institution in creating personally mature, professionally equipped and service-oriented graduates is really worth mentioning.

We believe in total learning and sharing. Have a visit to HCOE and feel good to get good education.

Success Is A Journey Not A Destination

Ensure That You Are In The Right Direction, Instead of just At The Right Speed.

Best Wishes,

Mr. Bishnu P. Sharma
Chairman



Message from the **PRINCIPAL**

It gives me immense pleasure to state that Himalaya College of Engineering has been making progress towards its vision. It has expanded its scope to run bachelor of engineering programme in four disciplines: Computer Engineering, Electronics, Communication and Information Engineering, Civil Engineering and Architecture. Since 2011, BSc CSIT of Institute of Science and Technology, TU was started and has resulted a successful outcome and BCA has been started from 2019. It is planned to introduce additional programs in Bachelor and post graduate level in engineering.

The college has been making continuous effort to develop itself in various sectors. It has made progress in building infrastructures and developing other physical facilities. We have established highly sophisticated labs to run practical educational programs with increased facilities.

With the emphasis on academic excellence, the pass percentage of students is not only high but many students have also got the highest score in IOE exam. Our graduates have earned prominent positions in different reputed institutions, companies and government offices

in the country. Many students have received scholarship in foreign universities for higher studies and research. This is possible due to a healthy academic environment and the dedication of qualified and experienced faculties and the staffs.

As part of extracurricular activities, we conduct various programs to acquaint the students with the upcoming challenges and opportunities and mould them to face the ever growing competitive world.

We welcome new graduates to join HCOE in Bachelor of Engineering, BSc CSIT and BCA studies. You can rest assured that we will do all to help you build your careers in various technical fields.

Dear students, your future at HCOE is bright. The College is ready to provide you opportunity and every possible facility for research and to turn your innovative plans into reality.

Kishor Gautam
Principal



HIMALAYA COLLEGE OF ENGINEERING

HIMALAYA COLLEGE OF ENGINEERING

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Introduction

Himalaya College of Engineering (HCOE) is affiliated to Institute of Engineering (IOE), Tribhuvan University (TU), Nepal. The College was established in June 2000 AD with an aim to produce qualified engineers through competent engineering education who will be the backbone for the development of national. The Bachelor of Engineering programs conducted by the College are Computer Engineering, Electronics, Communication and Information Engineering, Civil Engineering and Architecture. BSc in Computer Science and Information Technology (BSc CSIT) of Institute of Science and Technology, TU was launched in 2011 and BCA in 2019. The college is being operated by a strong team of professionals and academicians who possess appropriate experience in educational networks for a long time. The College has been associated with KMC Educational Network since May 2007. It has expanded programs, and gained strength since its association with KMC Educational Network.

The College owns ten and half ropani land and has leased about fourteen ropani of land at Chyasal, Lalitpur. The College has a seven storey seismic resistant academic building with 57,600 square feet floor area where all programs are being run at present and a four-storey

building of 17,277 square feet area is under construction. The College has maintained all its academic programs as per the standards laid down by IOE and Nepal Engineering Council (NEC). It assures quality education required for the students in the present context, and assists them in pursuing their educational and professional career and goals. Graduates of this College have shown professional competence in Computer Engineering, Electronics and Communication Engineering, Civil Engineering, Architecture and ICT fields. Many students have topped in different disciplines of IOE conducted examinations. Our students regularly exhibit Himalaya Exhibition, and technical competitions for 2017 where almost students participate with students of other engineering colleges in college premises.

The College has given equal priority to extracurricular activities, Inter and Intra College sport competitions are held every year. Robotics team of the college achieved first position (Grand Prix) in Inter Engineering College Competition held in Kathmandu in 2008 and have participated in Tech Fest organized by IIT Mumbai, India. All departmental clubs share their knowledge and skills through different academic activities.

Our Philosophy



VISION

To establish itself as one of the major centers of learning in the field of science and engineering through conducting different educational programs of engineering and providing research, trainings and consulting services in these fields.

MISSION

To provide qualitative and competitive technical education and prepare graduates for the national development and prosperity, and to shape them to face global challenges in the modern engineering scenario.

OBJECTIVES

- To enhance the technological capabilities of the country through quality education to the students and produce qualified, skilled and competent engineering human resources required for the nation.
- To promote quality engineering education through different training programs, research works, and innovation.
- To enhance further the quality of engineering researchers and produce specialized human resources by offering MSc degree in various engineering and science discipline in future.

Academic Programs

**BE in Electronics,
Communication
and Information
Engineering**
(Intake: 48)

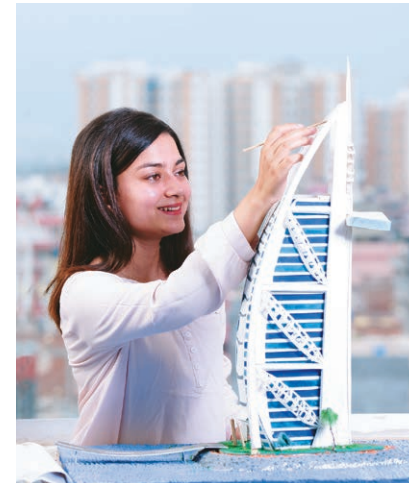
**BE in Computer
Engineering**
(Intake: 48)

**BE in Civil
Engineering**
(Intake: 96)

BE in Architecture
(Intake: 48)

**BSC in Computer
Science and
Information
Technology**
(Intake: 48)

BCA
(Intake: 35)



Bachelor's Degree in **Electronics, Communication and Information Engineering**



Bachelor's degree in Electronics, Communication and Information is a four-year (eight semesters) program with core and elective subjects accompanied by project works. The courses of this program include: Communication System, RF and Microwave, Antenna and Propagation, Microprocessor, Electronics Device and Circuits, Digital Logics, Artificial Intelligence, Database management System, Operating System, Computer Programming and Object oriented Programming. This course aims to provide the solid foundation necessary for the students to embark on a successful career in Electronics Engineering, Information Systems, Networking, System Administration, Software Development and Multimedia Computing fields. Popular and professional technical training programs are integrated into the major structure. The strong knowledge gained in this major structure prepares graduates for further studies or employment in a wide range of economic sectors like technology, business, banking, finance, and trading in Nepal, Asia and beyond.

The Department assists students to learn these subjects through lectures, laboratory works and presentations. It also schedules field visits for students in different semester at sites like Radio station, Nepal Telecommunication Company, Satellite Station and Hydro Power Station, etc to ensure the learning by doing. Total intake capacity for this programme at HCOE,TU is 48.

Course Objective

- >> To produce highly competent professional in the field of Electronics, Communication and Information Engineering
- >> To Enhance the analytical and problem-solving capability of the students to handle current issues in Electronics, Communication and Information Engineering
- >> To provide specialized knowledge to the students in Technical aspects of Electronics and Information Engineering and automation
- >> Develop professional skill in students to make them capable of carrying out sound knowledge in Electronics, Communication and Information engineering

Career prospect

Information Technology is amongst the areas that Nepal Government has identified for focused support to develop it faster in Nepal. In each and every sector like banking, finance, business services, trading, legal and public administration sectors, people with a solid background in technology are in great demand in this increasingly complex technological age.

Some of the Sectors where Electronics and Information Engineers can work

- >> Consumer Electronics manufacturing companies
- >> Telecommunication Companies
- >> Telecom Vendors
- >> Hospital and Medical Institutions
- >> ISPs
- >> Civil Aviation
- >> Hardware Design and production Industries
- >> Software Companies
- >> Academic Institutions
- >> Government Offices
- >> ICT Industries





Electronics and Communication Engineering is a fascinating field and one which could make your time challenging, enriching and rewarding experiences.

Decision for shaping your future and making it bright is most important thing. Quality of education, supportive environment and proper guidance are some of the salient features of HCOE. I'm sure HCOE will make me capable to achieve my goal. I'm glad to be part of HCOE.

Rajesh Raskoti
2073/BEX/09
All Semesters Topper

I Semester

Engineering Mathematics I
Computer Programming
Engineering Drawing I
Engineering Physics
Digital Logic
Basic Electrical Engineering

II Semester

Engineering Mathematics II
Microprocessor
Object Oriented Programming
Engineering Chemistry
Electric Circuits and Machines
Workshop Technology

III Semester

Engineering Mathematics III
Electronics Devices and Circuits
Control Systems
Probability and Statistics
Electromagnetics
Instrumentation

IV Semester

Applied Mathematics
Discrete Structure
Data structure and Algorithms
Advanced Electronics
Computer Graphics
Numerical Methods

V Semester

Engineering Economics
Database Management Systems
Computer Networks
Computer Organization and Architecture
Operating Systems
Filter Design

VI Semester

Communication English
Project Management
Propagation and Antenna
Communication Systems
Object Oriented Software Engineering
Embedded Systems
Minor Project

VII Semester

RF and Microwave Engineering
Artificial Intelligence
Organization and Management
Digital Signal Analysis and Processing
Wireless Communication
Elective I
Project Part A

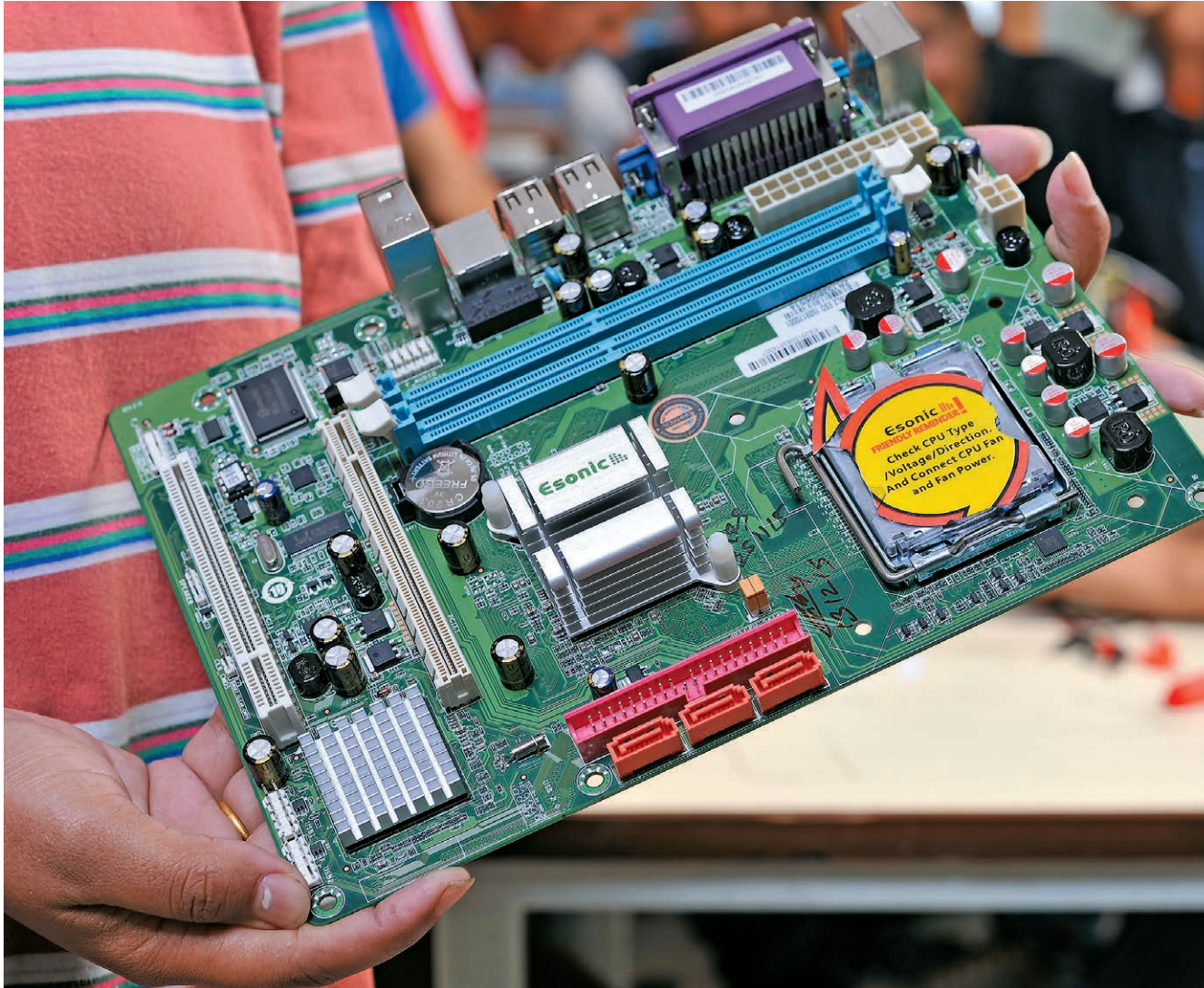
VIII Semester

Telecommunications
Engineering Professional Practice
Energy, Environment and Society
Information Systems
Elective II
Elective III
Project Part B



Er. Ashok G.M,
MSc in Information System Engineering,
HOD, Electronics and Computer Engineering

Bachelor's Degree in Computer Engineering



Bachelor's degree in Computer Engineering is a four-year (eight semesters) program with 50 core and elective courses with laboratory works and field visits. Computer Engineering is a discipline that integrates several fields of electrical engineering and computer science required to develop computer hardware and software. It also deals with the design and development of computer systems and other technological devices.

Computer Engineers design, develop, and test systems and components such as processors, circuit boards, memory devices, networks and routers. They also develop and train computer programming languages (software) that include Operating system, application (word processing, spreadsheets, graphics, CAD, CAM, audio, video, media and games).

The department assists the students to learn these subject through lectures, laboratory works and presentations. Department also schedules field visits for students in different semesters at different sites like Radio Nepal, Nepal Telecom, satellite station, and hydro power station to boost up the students' knowledge level. Total intake capacity of this programme is 48.

Career in Computer Engineering

Computer Engineers are in high demand in different sectors where computer systems are implemented. They have options of moving into hardware or software positions of blending these two. Computer Engineers

are employed as software engineer, hardware engineer, system analyst, database administrator, system developer, software programmer, network administrator, software architect, GUI developer and web programmer.

Some of the sectors where computer engineers can work

- >> Software Designing and Developing Companies
- >> Internet Service Providers
- >> Banks
- >> IT Industries
- >> Manufacturing and Production Industries
- >> Telecommunication Service Providing Companies
- >> News Broadcasting companies
- >> Government Offices



Course Structure (COMPUTER ENGINEERING)



Four years passed in a blink. From academics to all those unforgettable events and activities, my journey with Himalaya College of Engineering has been a great experience which I will cherish forever. Besides all those hustles between assignments, projects, exams and deadline, the friendly attitude of faculty members of HCOE, their willingness to always offer a helping hand is the best part of all. HCOE is the best platform for all ambitious and enthusiastic students aiming to achieve the fruit of success.

Rebecca Rajbhandari
2072/BCT/39
7th Semester Topper

I Semester

Engineering Mathematics I
Computer Programming
Engineering Drawing I
Engineering Physics
Applied Mechanics
Basic Electrical Engineering

II Semester

Engineering Mathematics II
Engineering Drawing II
Basic Electronics Engineering
Engineering Chemistry
Fundamentals of Thermodynamics and Heat Transfer
Workshop Technology

III Semester

Engineering Mathematics III
Object Oriented Programming
Electric Circuit Theory
Theory of Computation
Electronic Devices and Circuits
Digital Logic
Electromagnetics

IV Semester

Applied Mathematics
Numerical Methods
Instrumentation I
Data Structure and Algorithms
Electrical Machines
Microprocessors
Discrete Structure



Perks of being an engineering student is that you always have an opportunity to dive within your passion and explore your potentials.

A key factor for me to choose HCOE was that I was determined to improve my knowledge and qualifications, and the fact that the range of opportunities available locally continues to expand, with the guidance and teamwork of professional faculties and experienced college administration. One of my main memories of my time at the college was how supportive and encouraging the faculty members were, particularly the interest in what students wanted to do with their future career, and for me it was the ideal start to the career which I desired.

Diwash Pokharel
HCE074BCT020
1st, 2nd and 3rd Semester Topper

V Semester

Communication English
Probability and Statistics
Software Engineering
Data Communication
Instrumentation II
Computer Graphics
Computer Organization and Architecture

VI Semester

Engineering Economics
Embedded System
Object Oriented Analysis and Design
Database Management Systems
Artificial Intelligence
Operating System
Minor Project

VII Semester

Project Management
Organization and Management
Energy, Environment, and Society
Computer Networks
Distributed Systems
Digital Signal Analysis and Processing
Project (Part A)
Elective I

VIII Semester

Engineering Professional Practice
Information Systems
Simulation and Modelling
Internet and Intranet
Project (Part B)
Elective II
Elective III



Bachelor's Degree in **Civil Engineering**



Bachelor's degree in Civil Engineering is a four year (eight semesters) course aimed for building infrastructures for the development of the nation. It mainly deals with the design, construction and research in its respective field. Nepal lies in an area where seismic activities and other natural disasters like landslides, floods and adverse effect of climate changes pose threat for the development of infrastructure. Hence this field of engineering has challenges to mitigate those effects. Increasing trend of urbanization needs to be addressed through proper planning, design and construction of water supply system, sewerage, roads and highways to cope up with rapid infrastructure development of the nation. This has become more contextual in the sense that our country is in the need of huge reconstruction in aftermath of earthquake and this obviously has led to the demand of good number of dedicated and industrious Civil Engineers. A Civil Engineering degree, often addressed as mother of all engineering, is a highly diverse and numerate degree that provides an opportunity to serve the nation and is also a passport to any analytical career. Total intake capacity of this programme is 96.

Career in Civil Engineering

The Civil Engineering graduates have the prospective career opportunity at different private and public arena in national to international levels. They can work as:

- >> Government Officer
- >> Consultant
- >> Construction Expert
- >> Academician
- >> Researcher
- >> Entrepreneur
- >> Designer
- >> Project Manager



It is my immense pleasure to become a part of HCOE family as a Civil Engineering Students. Highly qualified teachers, well equipped lab along with the friendly environment boosted my confidence and provided me platform to show my capabilities. Better IOE results every year in each semester has proven that it is one of the best engineering college. So I suggest you all to join HCOE and make your future bright.

Prajwol Narayan Shrestha
2072/BCE/045
3rd, 5th, 6th and 7th Semester Topper



Er. MD Abrar Alam
MSc. in Structural Engineering, TU
HOD, Civil Engineering

Course Structure (CIVIL ENGINEERING)



“ Civil Engineering is not only studying 45 and more subjects but utilizing them efficiently in practical life. I joined HCOE with a simple aim of being an innovative and practical engineer thereby shaping my future. Due to the guidance and support I received from my teachers I was able to make progress in my field of study. Things that are truly praiseworthy about HCOE are: its way of creating an understanding environment with provision of freedom of thoughts rather than just teaching, young fresh team of faculty members and their guidance, and never stepping back on resources to increase our competitive level. I am grateful to HCOE for helping me this far and I recommend this college for the enthusiastic students. ”

Sujan Phuyal

HCE074BCE084

1st, 2nd and 3rd Semester Topper

I Semester

Engineering Mathematics – I
Computer Programming
Engineering Drawing I
Engineering Chemistry
Fundamental of Thermodynamics and Heat Transfer
Workshop Technology

II Semester

Engineering Mathematics – II
Engineering Drawing II
Basic Electronics Engineering
Engineering Physics
Applied Mechanics
Basic Electrical Engineering

III Semester

Engineering Mathematics III
Applied Mechanics (Dynamics)
Strength of Materials
Engineering Geology I
Fluid Mechanics
Surveying I
Civil Engineering Materials

IV Semester

Theory of Structures I
Hydraulics
Surveying II
Soil Mechanics
Probability & Statistics
Building Drawing
Engineering Geology II



V Semester

Numerical Methods
Theory of Structures II
Foundation Engineering
Survey Camp
Water Supply Engineering
Concrete Technology and Masonry
Structure
Engineering Hydrology

VI Semester

Communication English
Design of Steel & Timber Structure
Building Technology
Engineering Economics
Sanitary Engineering
Transportation Engineering I
Irrigation & Drainage Engineering

VII Semester

Project Engineering
Design of RCC Structure
Transportation Engineering II
Hydropower Engineering
Estimating & Costing
Elective I
Project (part I)

VIII Semester

Computational Techniques in Civil
Engineering
Engineering Professional Practice
Technology Environment & Society
Construction Management
Project (Part II)
Elective II
Elective III



Bachelor's Degree in **Architecture**



Bachelor's degree in Architecture, started in 2066, is a ten-semester, five year academic programme. With 62 core and elective courses, the programme intends to produce qualified architects in urban planning, interior design, landscape design and building design. It is based on teaching, practice and research conducted on studio based learning. The classes, field visits and lab works are conducted by extensive professionally experienced full time and various visiting faculties comprising of practicing architects, senior faculties from Institute of Engineering, senior government officers and professional artists. After the completion of study, the students will work also as consultant architects for national and international organizations. The total intake of students in this program is 48.

The courses are conducted through architectural exhibition, regular field visits, studio works. Our some students go outside the country for internship.

Career in Architecture

After completion of B. Architecture degree, architects involve in design firms, construction companies, academic institutions, building construction and industries as

- >> Design Architect
- >> Interior Designer
- >> Product Designer
- >> Project Architect
- >> Conservation Architect
- >> Free Lancing Architects/Consultants
- >> Project Manager/ Construction Management
- >> Government Officer (Ministry of Urban Development) Municipal Offices
- >> NGO and INGO



Ar. Arjun Basnet
MSc. in Sustainable Architecture, NTNU, Norway
HOD, Architecture

Course Structure (ARCHITECTURE)



Five years of my architecture journey started the premises of Himalaya College of Engineering. This journey of exploring myself through architecture has been the most remarkable stretch of my life. I am so thankful to all the teachers for the support. Architecture courses invites diversity and the design studio culture embraces students and their creativity. For those who are really enthusiastic to explore world in a minute way, studying architecture can act like a ladder to reach their goal and without any doubt, HCOE is the best destination for that.

Prakriti Bhandari

2071/BAE/11

2nd, 3rd, 5th, 6th, 8th and 9th Semester Topper

I Semester

Engineering Mathematics I
Applied Mechanics
Basic Design I
Introduction to Architecture
Building Materials I
Drafting I
Free hand Sketching I

II Semester

Engineering Mathematics II
Drafting II
Basic Design II
Art and Graphics II
Building Construction I
Free hand Sketching II
Basic Skill Workshop

III Semester

Design Studio III
History of Architecture I
Building Materials II
Building Construction II
Design Theory I
Building Science I
Structures I



IV Semester

Design studio IV
History of Architecture (Nepalese)
Building Construction III
Design Theory II
Structure II
Surveying

V Semester

Design Studio V
Contemporary Architecture
Computer-Aided Design and Drafting
Building Construction IV
Working Drawings
Building Services I
Building Services II

VI Semester

Design Studio VI
Urban and Settlement Planning
Building Science II
Structures III
Specifications
Estimating and Costing
Building Economics
Sociology

VII Semester

Professional Training (Practicum)

VIII Semester

Architecture Conservation
Design Studio VII
Construction Management
Communications (English/ Nepali)
Structures IV
Elective I

IX Semester

Seminar and Directed Studies
Design Studio VII
Landscape Design and Site Planning
Professional Practice
Thesis Proposal and Research
Elective II

X Semester

Thesis Design





BSc.CSIT



Bachelor of Science in Computer Science and Information Technology (BSc CSIT) is four years (eight semester) course affiliated to Tribhuvan University (TU). The course is designed to provide the students with knowledge in the information technology. The course is highly acceptable and demanding to the nation and IT industries. This programme provides the students with theoretical and practical knowledge which will enable students to solve complex problem of the IT industry. The programme develops the underlying principles of both Computer Science and Information Technology and show how these principles can be applied to solve real world problems. This program develops the skill that is essential for both computer professional and IT manager. It offers intensive knowledge in the theory, design, and programming.

Career in CSIT

The BSc CSIT graduates have prosperous career opportunities at different government, private and public organizations. Especially they work as:

- >> System Analyst
- >> Programmer
- >> IT officer/Manager
- >> Network Administrator
- >> Database Administrator
- >> System Administrator
- >> Software Developer
- >> Web Developer
- >> Project Manager
- >> Information System Manager

Course Structure (BSC CSIT)



/// Dreams should always be bigger but the journey of pursuing the dream is never easy. Success of an individual is the combined result of individual consistency in their efforts and all the mentors they encounter throughout the life. My achievement is also a result of my hardwork and proper guidance of my family, college and friends. HCOE has always helped me to pave the path of success through lectures, seminars and other curricular activities by bringing the best out of me in every possible ways. I would like to thank the college family for proper guidance and support to pursue by dream. ///

Dikshya GC
2074/CSIT/11
3rd Semester Topper

First Semester:

Introduction to Information Technology(CSC109)
C Programming(CSC110)
Digital Logic(CSC111)
Mathematics I(MTH112)
Physics(PHY113)

Second Semester

Discrete Structure(CSC160)
Object Oriented Programming(CSC161)
Microprocessor(CSC162)
Mathematics II(MTH163)
Statistics I(STA164)

Third Semester

Data Structure and Algorithm(CSC206)
Numerical Methods(CSC207)
Computer Architecture(CSC208)
Computer Graphics(CSC209)
Statistics II(STA210)

Fourth Semester

Theory of Computation(CSC257)
Computer Network(CSC258)
Operating System(CSC259)
Database Management System(CSC260)
Artificial Intelligence(CSC261)

Fifth Semester

Design Analysis of Algorithm(CSC314)
System Analysis and Design(CSC315)
Cryptography(CSC316)
Simulation and Modeling(CSC317)
Web Technology(CSC318)
Elective I

List of Electives:

1. Multimedia Computing (CSC319)
2. Wireless Networking (CSC320)
3. Image Processing (CSC321)
4. Knowledge Management (CSC322)
5. Society and Ethics in Information Technology (CSC323)
6. Microprocessor Based Design (CSC324)

Semester VI

Software Engineering(CSC364)
Compiler Design and Construction(CSC365)
E-Governance(CSC366)

Net Centric Computing(CSC367)
Technical Writing(CSC368)
Elective II

List of Electives:

1. Applied Logic (CSC369)
2. E-commerce (CSC370)
3. Automation and Robotics (CSC371)
4. Neural Networks (CSC372)
5. Computer Hardware Design (CSC373)
6. Cognitive Science (CSC374)

Semester VII

Advance Java Programming(CSC409)
Data Warehousing and Data mining(CSC410)
Principles of Management(MGT411)
Project Work(CSC412)
Elective III

List of Electives:

1. Information Retrieval (CSC413)
2. Database Administration (CSC414)
3. Software Project Management (CSC415)
4. Network Security (CSC416)
5. Digital System Design (CSC417)
6. International Marketing (MGT418)

Semester VIII

Advance Database(CSC461)
Internship(CSC462)
Elective IV
Elective V

List of Electives:

1. Advanced Networking with IPV6 (CSC463)
2. Distributed Networking (CSC464)
3. Game Technology (CSC465)
4. Distributed and Object Oriented Database (CSC466)
5. Introduction to Cloud Computing (CSC467)
6. Geographical Information System (CSC468)
7. Decision Support System and Expert System (CSC469)
8. Mobile Application Development (CSC470)
9. Real Time Systems (CSC471)
10. Network and System Administration (CSC472)
11. Embedded Systems Programming (CSC473)
12. International Business Management (MGT474)

Bachelor in Computer Application

Bachelor's degree in computer application (BCA) is a four year (eight-semester) undergraduate program in computer application affiliated to TU. The course covers wide application of computer as programming language, hardware and software, computer networks, worldwide web, database management system, logic, multimedia and many more.

Course Structure (BCA)

Semester I: 16 Credit Hours

Computer Fundamentals and Applications
Society and Technology
English I
Mathematics I
Digital Logic

Semester II: 16 Credit Hours

C Programming
Financial Accounting
English II
Mathematics II
Microprocessor and Computer Architecture

Semester III: 15 Credit Hour

Data Structures and Algorithms
Probability and Statistics
System analysis and design
OOP in Java
Web Technology

Semester IV: 17 Credit Hours

Operating System
Numerical Methods
Software Engineering
Scripting Language
Database Management System
Project I

Semester V: 15 Credit Hours

MIS and E-Business
DotNet Technology
Computer Networking
Introduction to Management
Computer Graphics and Animation

Semester VI: 17 Credit Hours

Mobile Programming
Distributed System
Applied Economics
Advanced Java Programming
Network Programming
Project II

Semester VII: 15 Credit Hours

Cyber Law and Professional Ethics
Cloud Computing
Internships
Elective I
Elective II

Semester VIII: 15 Credit Hours

Operations Research
Project III
Elective III
Elective IV

Elective Courses

Applied Psychology
Geographical Information System
IT in Banking
Hotel Information System
Enterprise Resource Planning
Knowledge Engineering
Advanced Dot Net Technology
Database Programming
Database Administration
Network Administration



Er. Himal Chand Thapa
MSc in Computer System and
Knowledge Engineering
HOD, CSIT

Research and Innovation Unit

Research and Innovation Unit (RIU) at Himalaya College of Engineering is established to create a conducive research environment at the college. It helps students on their project works and faculties to work on the topic/ area of their research interest. Broadly, the unit organizes research activities for the faculties and students of the college.

It aims to:

- >> Establish and design innovation centers, and develop lab facilities.
- >> Strengthen research capacity and paper writing skill of the students and faculties through various trainings, conferences and academic discussion forums.
- >> Collaborate with various national and international academic as well as research institutions on appropriate technology and
- >> Support students and faculties to perform their research projects, and publish their papers in national and international journals.

The unit is conducting International Conferences and publishing HCOE Journal soon.



Dr. Shanti Kala Subedi

(PhD in Engineering Science and Technology, Massey University, New Zealand)

Head of Research and Innovation Unit

Teaching Approach

TEACHING FACILITIES

HCOE lays emphasis on quality and practical education. In order to meet this objective, the college has highly qualified and experienced faculty members for all the programmes. The faculty members of HCOE have long teaching experience and the visiting faculty earned a wide range of work experience from reputed national and international engineering Colleges and universities. The College frequently arranges various seminars, workshops, and symposiums lectured by distinguished experts to broaden and enhance knowledge of students.

SCHOLARSHIPS AND AWARDS

The College awards scholarship to 10 percent of the students of total enrolment in engineering programmes. The College also provides partial scholarship to few meritorious and intelligent students in some subjects.

ADMISSION PROCEDURE

Students who have passed the entrance examination conducted by IOE are eligible for admission at HCOE. Students having a minimum score of 45% in I. Sc. or 10+2 with 200 math paper or Diploma in Engineering or an equivalent course recognized by TU can appear in the entrance examination.

The eligible students have to fill up the online form available at the website <http://entrance.ioe.edu.np> or www.ioe.edu.np and have to appear in a two hour computer based examination. The subjects for the examination are: English, Mathematics, Physics, Chemistry, Basic concept of drawing.

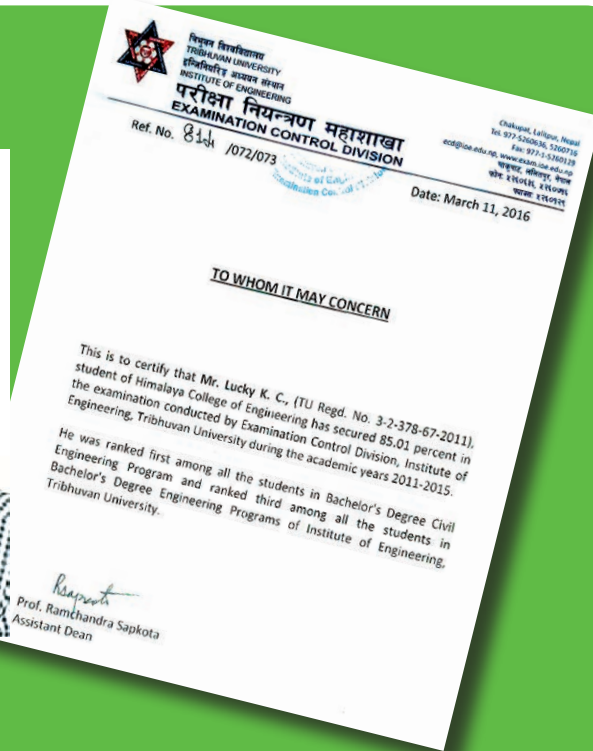
Successful students in entrance exam are admitted on the merit basis. They have to fill up the college admission and will be admitted with commitment to college rules and regulation.

CLASS SCHEDULE

The academic programmes in HCOE run in the morning shift from 7:00 AM to 2:00 PM and from Sunday to Friday. The college administration however, opens up to 5:00 PM to facilitate the students, stakeholders, governmental and non-governmental officials. The field visits, survey field work, seminars, trainings, workshops, extra classes etc. may run beyond these official hours.

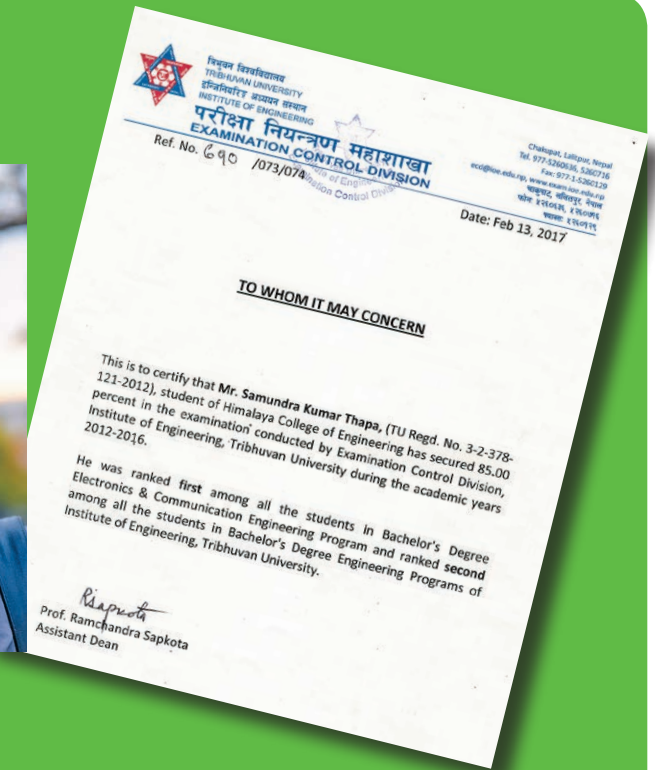


HCOE's Achievers



From my first day at HCOE, it has always been an ocean of knowledge, where I had satisfied my thirst. The profound resources, may that be materials for the well-equipped lab or books on the shelves of library or the ideas shared by the staffs, it has always given me enormous amount of knowledge and opportunity, and shown me the right path to be an Engineer. The road to be an Engineer was not easy, but with the facilities and highly experienced staffs I was able to carve the path easily.

Er. Lucky K.C.
IOE Topper in Civil Engineering
Academic Year 2011-2015
(Master in Civil Engineering at University of Toledo, USA)



It was a great opportunity for me to be part of HCOE to shape my dream. I indeed had best memorable period in HCOE, both academically and practically. I know I spent just four years but what I have gained there, was definitely a high boost of my life. I can proudly say that HCOE empowered me with a knowledge and a good vision for my successful years for life ahead.

Er. Samundra Kumar Thapa
IOE Topper in Electronics and Communication Engineering
Academic Year 2012-2016
(Graduate Research Student at the School of Engineering, University of Tokyo, Japan)



Challenges are what make life interesting and overcoming them is what makes life meaningful. A college provides opportunities for education, knowledge, inspiration, hands-on experience and a way to the

bright future. Himalaya College of Engineering provided me such a support, good environment, and knowledge generating skillful relationship among friends and college management which helped me to achieve the success.

Er. Pratap Sapkota
Computer Engineer, NTC

HCOE has been a pioneer in offering highly qualified facilities, well managed labs, adequate infrastructures and library materials. In my Four year attachment with HCOE as a student, I received immense support, guidance and different opportunities by the college. HCOE has helped me a lot to get where I am now and I am glad to be a part of it. HCOE is one of the leading colleges in the field of engineering and offers serene and friendly environment with excellent facilities and enthusiastic teachers. DREAM BIG AND HCOE WILL MAKE IT HAPPEN.



Er. Shristi Bhattarai
(BCE 2069 BATCH)
Civil Engineer, GoN (DOLIDAR)



With a blurry picture of being the Architect since school days, exactly after my +2 HCOE start enrolling first batch of architecture. There was no better option or rather opportunity for a guy holding averagely marked certificate. I admitted at once.

Five years of taking architecture seriously, mentored by inspiring teachers, I remember our yearly growing department and library adding reference books one by one. It was always witnessing growth that kept hope. We could undoubtedly take this school as rare place in our lives. That has inspired so much love and hate, competition and companion, stress and reliefs, ego and altruism which on only one would be truly boring yet together and simultaneous they form complex, rich and powerful time. Looking back from now, it was all that precious learning that structured our thoughts and action to become what we are today.

I encourage and welcome to this viscous faculty and celebrate the intensity. Take with soul, think independently and express whole heartily. Let your subject take over you. Let's sink and embrace.

Ar. Suman Limbu
Architect
Arc Himalaya Services Pvt.Ltd



I joined HCOE in 2010. I am the 2066 batch. When I was a fresher, like many I was overwhelmed with the course and content and failed at times. But with the guidance and support from my teachers and with sincerity and focus I gradually overcame it. Courses like DSA, DBMS, OOAD, C++ and C, EADD etc and the extra training classes on JAVA, NET and PHP groomed me to get my dream job.

Er. Kushma Thapa
Senior Software Engineer, Vercend Technologies



I studied BE(Electronics and Communication) at HCOE and still believe it was one of the best decision I've taken to boost my confidence, connections and employability. As a result of the guidance and support from the lecturers, I was ranked 1st out of all departments of HCOE and 6th among IOE graduates 2009-2013. It gave me a fantastic opportunity to meet new people, open my mind, and add an exciting chapter to my life. With this degree, I had a chance to receive scholarship at Federation University Australia for Master of Technology (Software Engineering) as well as have an opportunity to work at National Broadband Network a nationwide project in Australia. I am thankful to HCOE for all my personal and professional accomplishment and would highly recommend to anyone wanting to increase their knowledge and success.

Gangadhar Sapkota
Alumnus, Federation University Australia- ME 2016
NBN Technologist | Broadpectrum Melbourne Australia

Physical Facilities

The college has its own seven storey building having total area of 57,600 square feet for academic program. A four storey-building of 27,277 square feet is under construction. There are three other college buildings and two hired buildings for labs, workshops, project works and cafeteria in the area of 24 Ropani. These buildings have sufficient space for class rooms, labs, workshops, offices, seminar hall and research centre. The college has indoor and outdoor game facilities and student-centered activities. A hall with an area of 3,200 square feet can accommodate 250 students for ECA programme.

LIBRARY

HCOE's library has online facility which has a huge collection of text books, references books. More than 22,000 and course manuals and reports about 4,000. It subscribes to various newspapers, magazines, course book and national and international research journals for its different departments. The new books are regularly added in the library. The library provides books to students under the book bank system and regular renewing system. The HCOE library uses library software and provides services by e-library to the students.



LABORATORY

HCOE has developed fully equipped laboratories of all disciplines. These have large number of modern equipment and instruments as laid by IOE and NEC. Some labs such as physics, chemistry, thermodynamics etc. are shared in common by all programmes while some are specific labs. The equipments are regularly maintained and new ones are added regularly.



PHYSICS LAB

The college has well-developed physics lab with a darkroom.

CHEMISTRY LAB

The chemistry lab is spacious and well equipped with



latest instruments and apparatus.

WORKSHOP LAB

Workshop is segregated into machine, welding, sheet metal and carpentry. The carpentry lab is designed for the students of Architecture for wood works.

ELECTRICAL LAB

Electrical lab, fully equipped with highly sensitive instruments, is shared by all the programmes for basic electrical engineering, electrical machines, instrumentation and control system. The college is going to developed power lab and switch gear protection for the proposed programme of BE Electrical Engineering.

ELECTRONICS LABS

The five electronic engineering labs in the college are basic electronics, advanced electronics, communication system, digital electronics and project lab. These are equipped with latest instruments. The labs are updated as the technology changes to provide latest information in the concerned field.

COMPUTER LABS

The college has seven computer labs for computer engineering CSIT and BCA, and also shared by other programmes. Each lab consists of 30 computers which are equipped with latest high-tech computing facilities

and fully supported by suitable application software. High speed internet and intranet facilities are available in the labs.

CIVIL ENGINEERING LABS

Civil Engineering programme has various labs on civil engineering materials, strength of materials, fluid mechanics and hydraulic, structure, soil mechanics, water supply engineering, engineering geology, concrete technology, environmental engineering, transportation engineering and hydropower engineering lab.

SURVEYING LAB

Surveying lab is fully equipped with modern and latest instruments used for civil engineering and architecture programme.

VISUAL SKETCH LAB

This lab is designed for architecture programme where the visual sketching on monumental objects is done.

CAFETERIA

Cafeteria is available within the college premises. It serves breakfast, lunch and various bakery products at reasonable costs. It serves a variety of hygienic food.

SPORTS

Every year, a sport week is conducted in the college in which many students participate. The college has basketball, badminton and table tennis courts within the college premises. Outdoor games like football and cricket are played on ANFA football ground, Chyasaal and cricket ground in the valley respectively. Students



regularly participates on sport events organized by other colleges.

TRANSPORTATION

The college provides transportation for students to site visits, field works, and study tours on college buses. As the college is located in an easily accessible place, most of the students use public transportation. However, the college is planning to provide bus services for students and faculty members in future.

INTERNET

Students are facilitated by high speed, 50 mbps, online browsing of the internet in the college. The computer laboratories provide the internet service throughout the college hours and 24 hours during project works.

GUIDANCE AND COUNSELING SERVICES

This unit looks after the welfare of students, collective as well as individual, which requires correct and prompt addressing for the overall efficiency of the students. This department was established to address the situation and help students concentrate on studies as their primary task.

JOB PLACEMENT SERVICES

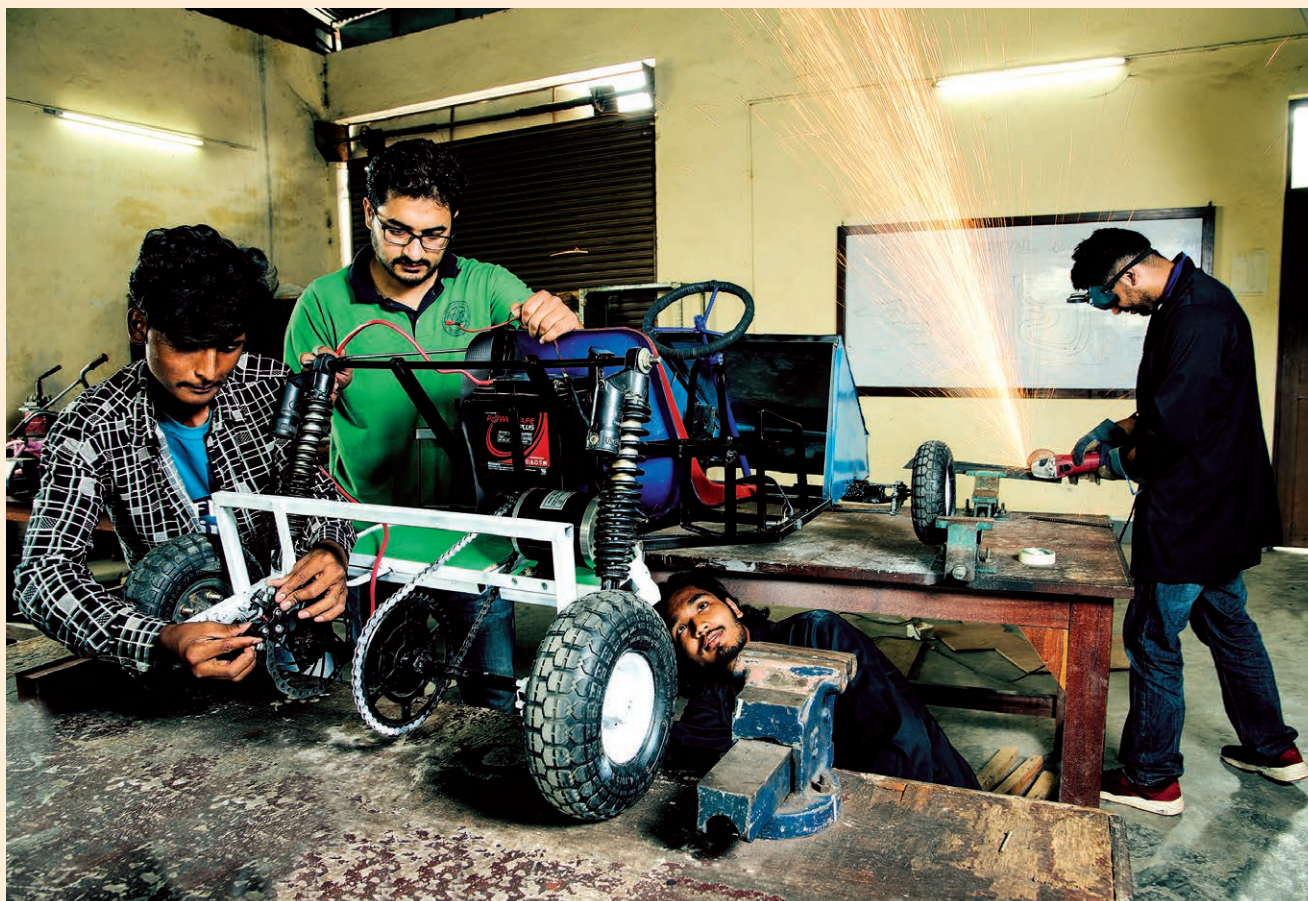
The college tries to bridge the students to the industries by producing capable candidates. As per previous practices, many students have shown high professional strength. So, counseling and follow up services are more applicable for the students. HCOE has made MOU with Finishing School, India, National School of Skill Development, India and TOYO works Company Ltd., Japan for placement of the graduates.

RESEARCH AND PROJECT WORK

The college encourages the students for research work. Individual student start research work from the very beginning, and finally undertake project work. HCOE encourages its faculties also for research and development. Many research works are conducted by Kathmandu Model Research Foundation, which is partner of the network.

SEMINARS, WORKSHIPS AND TRAININGS

Himalaya College of Engineering offers ample number of out of course trainings at different departments. The aim of this activity is to develop knowledge and skills in recently emerging technologies and programming languages on students that help in their project works and academic courses. These trainings help the students to explore the theoretical knowledge via physical devices as well as simulation and in professional career.



Trainings:

We Provide Following Additional Market Oriented Trainings Courses.

Electronics and Information Engineering

- Basic Hardware Troubleshoot and Design
- Arduino and Raspberry PI
- Python and Machine Learning
- CCNA and Network Administration

Note: Other same as Computer Engineering

Computer Engineering and CSIT

- HTML and CSS
- PHP/Java Script
- JAVA
- C#, Net
- Advanced JAVA
- Android
- Python and machine learning
- Mermstack
- Oracle

Department of Civil Engineering

- SAP 2000 (Structural Analysis Programme)
- Smart Road (Road Design Software)
- GIS System/Plaxis 2D, 3D
- AutoCAD (Engineering Drawing Software)
- Workshop on Water Supply
- Workshop on Retrofitting Techniques of Building Structure

Department of Architecture

- Sketch up Software Trainings for Third year II-part student
- Photoshop Training for Fourth Year II part

Interaction with Distinguished Personalities



His Excellency Roland Schafer
Ambassador of the Federal
Republic of Germany to Nepal

14th June 2018 His Excellency, the Ambassador of Germany to Nepal, Roland Schafer visited Himalaya College of Engineering (HCOE), Chyasal and interacted with the students.

In an interaction session, His Excellency delivered an engrossing speech on the historical, political, social, economic and educational aspects of Germany. He also answered the students' queries on German's specialties. Excellency highlighted on German's historical efforts towards the journey of national

prosperity. Saying that he was delighted to come as the Ambassador to Nepal, Schafer expressed his intuition that he was mesmerized by the country's natural, cultural, historical and archeological gorgeousness. He opined that he was enthusiastic about his visit to HCOE and for an opportunity to have a productive interaction with engineering students. Excellency encouraged students of HCOE to apply in Germany for further studies as Germany offers free education both to national and international students.



Er. Sandra Magnus
(former NASA astronaut)

24th May 2018. NASA's former astronaut and scientist Er. Sandra Hall Magnus visited Himalaya College of Engineering (HCOE) and interacted with the students.

Addressing the assembly and special interaction program Er. Magnus shed some lights in her childhood goal to become an astronaut that she accomplished with the help of her rigorous studies and research. Becoming a scientist at NASA was a dream come true moment for her, hence, asserted that with concentrated effort, dedication

and honesty anybody can accomplish his/her goal and reach destination. She gave highly informative presentation and was really happy to meet inquisitive budding engineers of HCOE. She replied to all the queries of the students though there were lots of queries asked to her.

Er. Sandra Hall Magnus encouraged all the faculty members to involve in creative research works. According to Magnus "research helps people to think what nobody has thought and it is research that made me what I am today".

Academic-Industry Interface Programme

The college has started this program to bridge the gap that exists between academia and industry. Series I of this type was organized on January 2018 at Hotel De'L Annapurna, Durbar marg with Federation of Contractors Association of Nepal and Series II was organized on 20th June 2018 at Hotel Yak & Yeti, Durbar marg. We are taking measures to accommodate the demand of the industry by providing additional trainings and have interacted with higher officials of TU for possible course revision.



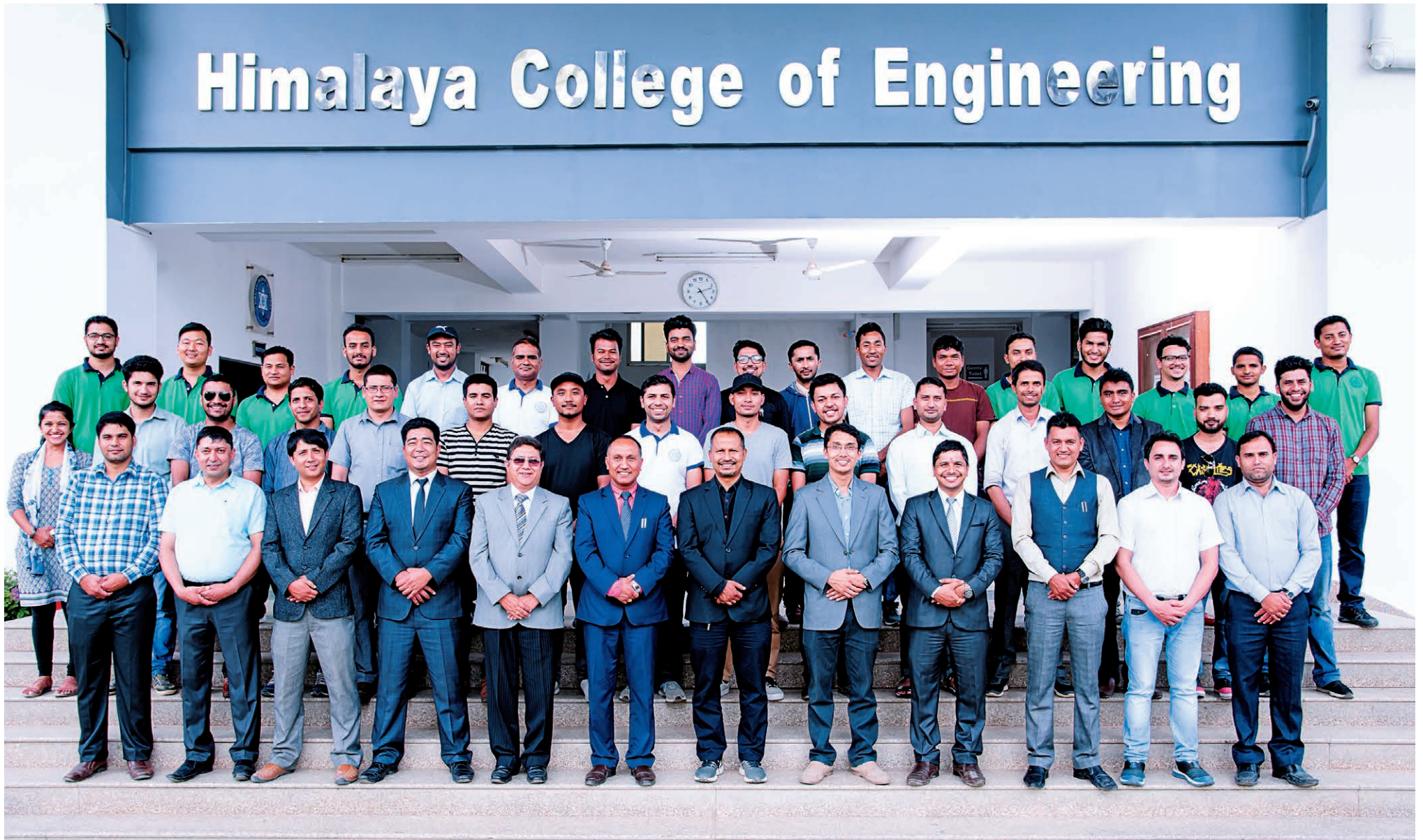
His Excellency Benny Omer
Ambassador of the State of Israel to Nepal



Why Himalaya College of Engineering ?

- Amicable teaching learning environment
Highly experienced and professionally committed faculties
- Well-equipped labs and well-stocked e-library
- Use of multimedia, audio and visuals in teaching
- Easy location, accessible from the all directions
- TU affiliated programs with worldwide recognition
- Number of IOE Semester toppers in different programs
- Access of high speed Wi-Fi zone
- Provision of various scholarships
- Individual students encouraged to undertake various learning activities
- Seminar, workshop and training in regular basis
- Engineering design related training at regular basis
- College supports for the innovative extra-curricular activities
- High successful rate in employment of its graduates.
- Dynamic and ever success Robotics Club

Team Himalaya



Himalaya Exhibition



Himalaya Exhibition 2019 (HEX-2019) was successfully conducted in 2019 in the college premises from 29th June to 1st July, 2019. Similar exhibition is going to be held in this year. Students in these exhibitions participated with great enthusiasms and demonstrated their skills on various projects. The exhibition included events in Civil Engineering, Electronics & Computer Engineering, IT and Architecture. More than 10,000 visitors observed the exhibition. The visitors were engineering students as well as students of school and science colleges, guardians, professional industries, construction companies, consulting firms, software/hardware design and development companies. Such Exhibition is conducted regular each year to enhance the student putated.



Student Clubs in HCOE



ASTHA

Architectural Students of Himalaya (ASTHA), established in 2068, is a students' organization founded by the architecture students of Himalaya College of Engineering, with a sole purpose to boost interaction, co-operation, creative and leadership skills of students.

ASTHA helps in cordial relation among the students and provides various opportunities through active participation in national and international programs. It organizes different workshops and exhibits ASTHA Architectural Exhibition (AAE) annually. ASTHA Exhibition collaborated with other faculties is played a leading role in organizing Himalaya Exhibition 2017.



Himalaya Information Technology Club (HIT Club)

Himalaya Information Technology Club (HIT Club), established on 2017, is a students' society of student of computer Science and information technology (CSIT) in Himalaya College of Engineering. It addresses developing technological needs of the students as well as provides technical assistance. The club is providing extra practical knowledge besides syllabus materials and a platform for the students to enhance the skills.

The team members of the club are students who are guided by capable faculty members. The main goal of HIT Club is to assist the students in every aspects and encouraging them to achieve their goals.



Himalaya Civil Club

Himalaya Civil Club (HCC), established on 2068, is an active students' society of Himalaya College of Engineering developed as the platform for civil engineering students to enhance their creativity and career development skills.

HCC organizes various events like Civil Quiz, seminar, training, workshop, inter-college exhibition. HCC also publishes a yearly students' magazine which contains articles with special supplement of journals, research papers, inventions and similar informative articles related to civil engineering.

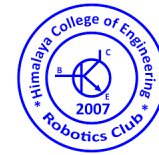


HIMALAYA ELECTRONICS AND COMPUTER CLUB

Himalaya Electronics and Computer Club

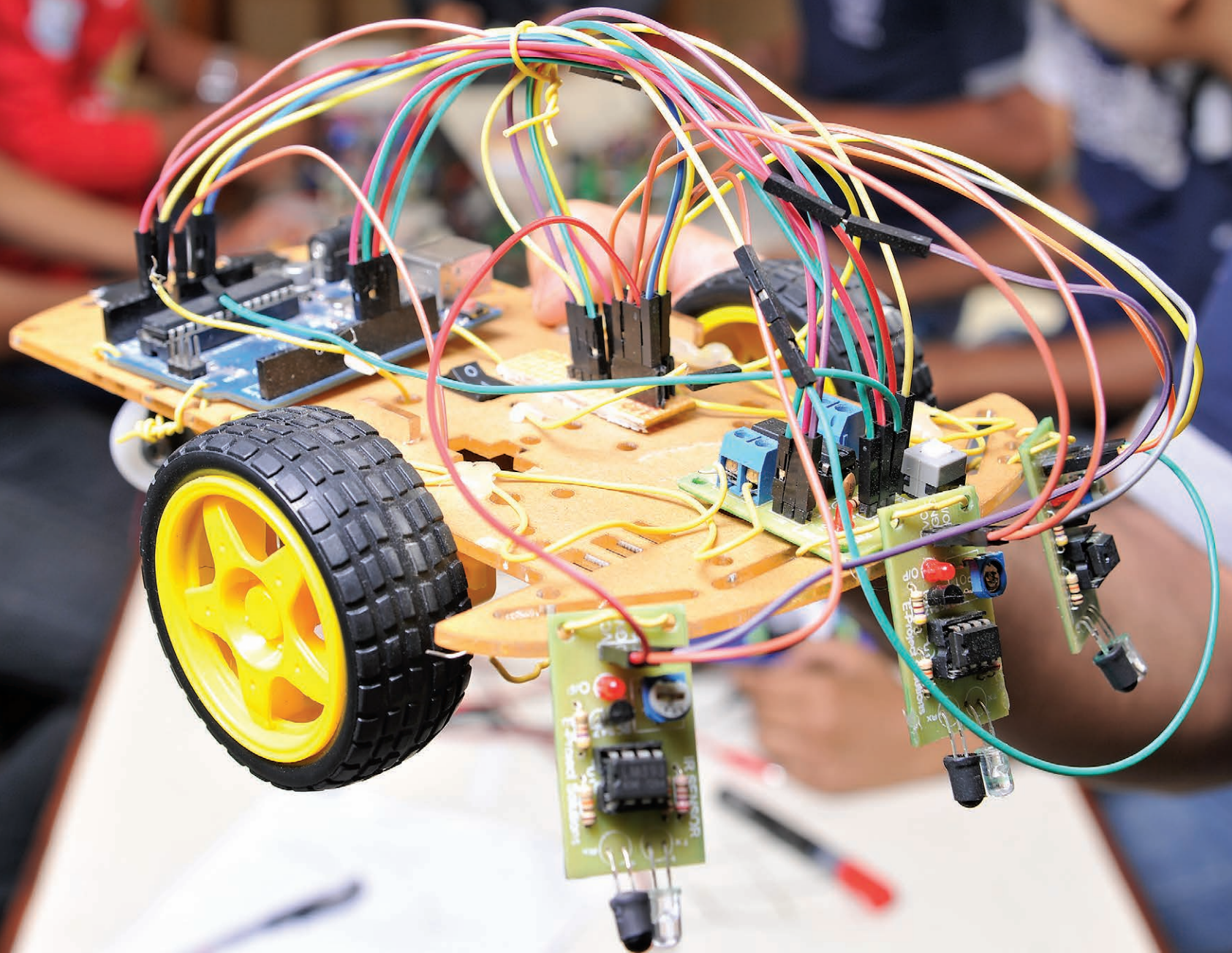
Himalaya Electronics and Computer Club (HECC), established on 2017 AD, is an active students' society of Himalaya College of Engineering founded as the platform for electronics and computer engineering students to enhance their creativity and career development skills. It provides an opportunity for the students to keep themselves updated with the latest advancement in technology through the club activities.

HECC organizes various events like training, seminar, workshop, interactive talk shows etc. A technical quiz, a technical workshop on "Introduction to Aurdino" and a workshop on "PHP Training" for computer and electronics engineering students were held this year. HECC along with other student clubs have organized an inter-college grand event, Himalaya Exhibition 2018.



Robotics club

Robotics club of Himalaya College of engineering was established in 2007 A.D. , which includes students mainly from Electronics & Computer Engineering department and partially form others. Robotics club organizes various events like workshop, training, and seminar on existing and latest technology. This year the club provides 3 days' workshop on "Arduino". Robotics club also participated in a different competitions like automatic akhada, manual akhada and other competition organized by different Engineering colleges and technical institutions. HCOE Robotics club achieved 2nd runner-up position in automatic akhada organized by RAN this year. Robotics club with other four clubs have completely organized inter-college grand event HEX 2018 (Himalaya Exhibition). HEX 2019 (Himalaya Exhibition).





KMC Educational Network

KMC Educational Network is a network of educational institutions in which more than 10,000 students study at present. The first institution, Kathmandu Model College (KMC), was established in 2000 AD and since then, more institutions have been introduced. The network conducts education from school level to post graduate level such as BBA, BSW, BBS, BA MA (English), MBS. Since May 2009, Himalaya College of Engineering, affiliated to TU, has come under the umbrella of KMC network. In a few years' span of time KMC Educational Network has become a top-ranking institution in the nation. The network has following member institutions.



HIMALAYA COLLEGE OF ENGINEERING

(Affiliated to Tribhuvan University)

Chyasal-9, Lalitpur, Nepal

Tel.: +977-01-5440555, 5454287, 5454297, 5424344

E-mail: info@hcoe.edu.np

Web: www.hcoe.edu.np

>> BE in Computer

>> BE in Electronics,

Communication and Information

>> BE in Civil

>> Bachelor in Architecture

>> BSc CSIT

>> BCA



KATHMANDU MODEL SECONDARY SCHOOL

Bagbazar, Kathmandu

Tel: 5342121, 5342015

ktmmodelcollege.edu.np

+2 Science Management
Law Humanities



KATHMANDU MODEL COLLEGE

Bagbazar, Kathmandu

Tel: 5342121, 5342015

kmcen.edu.np

BBA / BBS / BSW / BA / BCA BBM
MBS MA (English)



KMC School

Buddhanagar, Kathmandu

Tel: 4797111, 4792016

kmcschool.edu.np

Play Group to Grade X



Apollo International College (AIC)

AFFILIATED TO POKHARA UNIVERSITY

Lakhechaur Marg, New Baneshwor, Ktm.

Tel: 4474845, 4474851

apollointcollege.edu.np

BBA / BBA-BI / BHM



THE NEW SUMMIT SECONDARY SCHOOL

Maitidevi, Kathmandu

Tel: 4528321, 4542775

newsummit.edu.np

+2 Play Group to Grade X
Science / Management
Humanities / Fine Art / Law



BUTWAL MODEL COLLEGE

(Affiliated to Pokhara University)

Padsari, Rupandehi

Tel: 071 -429192, 429193

butmc.edu.np

BBA | MPPGD
BHM Masters in Population
Gender and Development



KATHMANDU MODEL SECONDARY SCHOOL

Balkumari, Lalitpur, Nepal

Tel: 5201331, 5201334

www.kmclalitpur.edu.np

+2 Science Management
Law Humanities



UNIVERSAL College

NEW SUMMIT COLLEGE

(Affiliated to Tribhuvan University)

Shantinagar, Baneshwor, Kathmandu

Tel: 4620522, 4620523

uc.edu.np

BBA / BBS / BSW / BA / MA (English)
BSc.CSIT/BCA/BBM



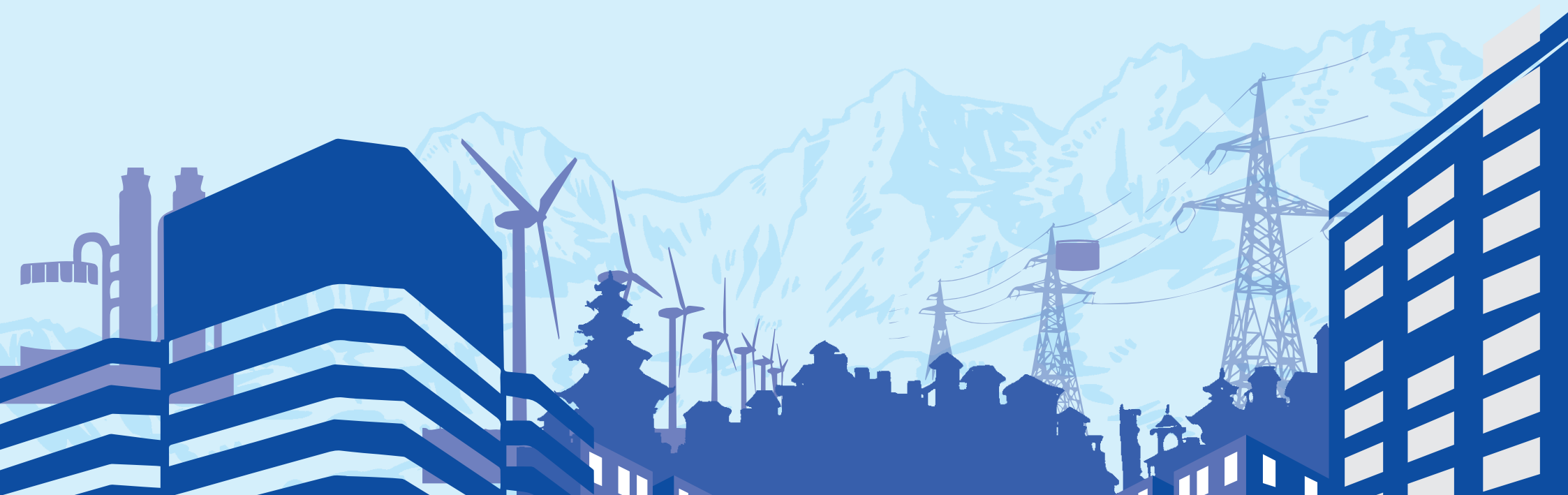
KATHMANDU MODEL RESEARCH FOUNDATION (KMRF)

Bagbazar, Kathmandu

Tel: 5342865

kmrf.org.np

Research Works



>> BE in Computer Engineering >> BE in Electronics, Communication and Information Engineering
>> BE in Civil Engineering >> Bachelor in Architecture >> BSc.CSIT >> BCA



HIMALAYA COLLEGE OF ENGINEERING

(Affiliated to Tribhuvan University)

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