

# HIMALAYA College of engineering

(Affiliated to Tribhuvan University)

BE Computer
BE Electronics & Communication
BE Civil
B Architecture
BSc CSIT

# **Board of Directors**



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# Message from the **DIRECTOR**

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 and Communication Engineering, Civil Engineering and Architecture. Since 2011, BSc CSIT of Institute of Science and Technology, TU have commenced at the College with successful outcome. It is planned to introduce additional programmes in bachelor level and post graduate in engineering.

The College has been making continuous effort to develop itself in various sectors. It has made progress in infrastructure building and developing other physical facilities. The College has own nine Ropani land and leased twelve Ropani land at Chyasal, Lalitpur for 20 years. The College has a seven storey academic building with 57,600 square feet area where all programs being run at present. We have established highly sophisticated labs to run educational programmes with increased facility every semester.

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 staff.

We welcome new graduates to join HCOE for bachelor of engineering and BSc CSIT study. You can rest assured that we will do all to help you to 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 translate your innovative plans into reality. HCOE, in brief, is an institution that encourages you to explore new frontiers of knowledge, to accept challenging situations and overcome them with courage, confidence and commitment.

Asso. Prof. Manoj Kumar Thapa Director

# Introduction

Himalaya College of Engineering (HCOE) is affiliated to Tribhuvan University (TU), Nepal. The College was established in June 2000 AD to produce the qualified engineers in the country who are the backbone of development. The aim of the College is to provide engineering education and produce qualified engineering graduates. The bachelor of engineering programme of Institute of Engineering (IOE), TU, conducted in the College are in Computer Engineering, Electronics and Communication Engineering, Civil Engineering and Architecture. BSc in Computer Science and Information Technology (BSc CSIT) of Institute of Science and Technology, TU is launched in 2011. It has been managed by a strong team of professionals and academicians who possess enough experience in educational networks for a long time. The College has been associated with KMC Educational Network since May 2007. It has expanded programmes, and gained strength since its association with KMC.

The College is located at Chyasal, Lalitpur and is extended in an area of 21 Ropani. The College has maintained all its academic programmes as per the standard 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 professional and educational goals. Therefore, BE graduates of this College have shown professional competence in Computer, Electronics and Communication, Civil engineering and Architecture sectors. Many students have got achievements as IOE topper in different disciplines. They have won the first position several times in the robotics competitions and other extracurricular activities in and out of the country. Himalaya Exhibition 2017 was recently exhibited in college premises by our students with different events. The College is proud of all these students who have got well-deserved positions in different institutions in the country and abroad as well.

The College has accorded equal priority to extracurricular activities. Inter College and Intra College sport competitions are held every year. Its robotics team achieved the first position (Grand Prix) in Inter-Engineering College Competition held in Kathmandu in 2065 and have participated in Tech Fest organized by IIT Mumbai, India in 2011 and 2013. Every year the club also actively participated in the Robotics Competition organized by Robotics Association of Nepal (RAN).





### **Our Philoshopy**



#### **VISION**

The vision of HCOE is to establish itself as one of the major centers of learning in the field of science and engineering through conducting different educational programmes of engineering and providing research, training and consulting service in these fields.

#### **MISSION**

The mission of the College is to provide quality technical education and prepare competitive technical graduates in the nation that enables its products to face new challenges of the country, and also to compete in the modern world by implementing short term, medium term and long term strategic plans.

#### **OBJECTIVE**

- To enhance the technological capabilities of the country through quality education to the students and produce qualified, technically skilled and competent engineering human resources required for the nation.
- To promote quality engineering education through different training programmes, research work, research labs, various engineering consultancy services.
- To produce quality engineering experts and managers as highly qualified human resources by offering MSc degree in various engineering and science discipline in future

### **Academic Programs**





Bachelor's Degree in Electronics and Communication Engineering (Intake: 48)



Bachelor's Degree in Computer Engineering (Intake: 48)



Bachelor's Degree in Civil Engineering (Intake: 96)



Bachelor's Degree in Architecture (Intake: 48)



Bachelor's Degree in Computer Science and Information Technology (Intake: 48)



# Bachelor's Degree in **Electronics** and Communication Engineering



Bachelor's degree in Electronics and Communication Engineering is a fouryear, eight semester program with 50 core and elective subjects. It aims to provide the knowledge and skills of the students on the basic concepts and theories that will equip them in their professional work involving analysis, system implementation, operation, production and maintenance of various applications in the field of Electronics and Communication Engineering. The programme deals with the electronic devices, circuits, communication equipment like transmitter, receiver, integrated circuits (IC), embedded systems and networking. It also deals with basic electronics, analog and digital transmission and reception of data, voice and video (AM, FM, DTH), microprocessors, satellite communication, microwave engineering, antenna and wave propagation.

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 sites like Radio Nepal, Nepal Telecommunication Company, Satellite Station, and Hydro Power Station to ensure the learning by doing methodology. Total intake capacity of this programme is 48.

#### Career in Electronics and Communication Engineering

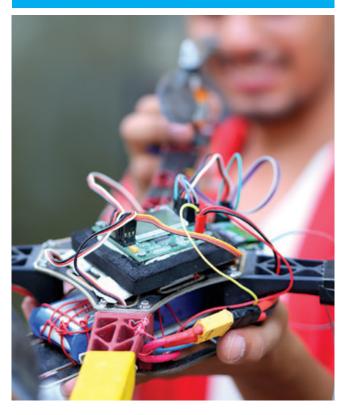
The electronics and communication engineers can be employed as designer, planning and support engineer, communication consultant, field test engineer, hardware analyst, technical director, network analyst.

### Some of the sectors where electronics engineers can work are:

- Consumer Electronics Manufacturing Companies
- Telecommunication Companies
- Telecom Vendors
- Hospital & Medical Institutions
- Internet Service Providers
- Civil Aviation Companies
- Hardware design and production Industries
- Software Companies
- Academic Institutions
- Government Offices



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



### **Course** Structure (electronics and communication engineering)

#### **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 Electrical Engineering Material Electronic Devices and Circuits Digital Logic Electromagnetics

#### **IV Semester**

Applied Mathematics Numerical Methods Instrumentation I Power System Electrical Machines Microprocessors Discrete Structure



"The world needs dreamers and the world needs doers. But above all, the world needs dreamers who do." -Sarah Ban Breathnach.

That's what fascinated me about Electronics, dreaming and creating. With the ambition to be a competitive engineer, I enrolled in HCOE with a lot of expectations. From the very first day of college, highly motivated and dedicated teaching faculties have provided a great learning experience. I feel very proud and lucky to be a part of HCOE family. For those fresh graduates in quest to pursuit good engineering career, HCOE is an ideal choice.

Milan Lamsal 2071/BEX/14 BE Electronics and Communication Engineering V Semester Topper

#### **V** Semester

Communication English Probability and Statistics Control System Advanced Electronics Instrumentation II Computer Graphics Computer Organization and Architecture

#### **VI Semester**

Engineering Economics Embedded System Computer Networks Signal Analysis Communication System I Propagation and Antenna Minor Project

#### **VII Semester**

Project Management Organization and Management Energy, Environment, and Society Communication System II Telecommunication Filter Design Project (Part A) Elective I

#### **VIII Semester**

Engineering Professional Practice Wireless Communication RF and Microwave Engineering Digital Signal Processing Project (Part B) Elective II Elective III



# Bachelor's Degree in Computer Engineering

HCOE



Bachelor's degree in Computer Engineering is a four-year, eight semester 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 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 the 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 are:

- 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)

#### **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



grateful to HCOE family for providing me an opportunity to be its part. Four years ago, I was in a dilemma about which college to join for my further studies when things went wrong during

IOE entrance examination, but now I am truly happy and satisfied to be a part of this institution. Among the things that have made my study so rewarding are the opportunities HCOE has provided to each and every student with its highly qualified and experienced teachers, effective administration and peaceful environment. I would also like to thank my colleagues for giving me great memories during this period which I will cherish all my life. I recommend all prospective students to join this college without any dilemma.

Namosi Tamrakar

2070/BCT/28 BE Computer Engineering Batch Topper



"HCOE"-the surreal experience I have never expected myself to learn so many things and explore the unexplored me. One year experience at HCOE with supportive staff and excellent facilities has made HCOE my best decision. It's like dream come true Encouraging environment

with motivating people give me guts to never give up to pursue my dream. I feel honor and proud to be a part of HCOE.

Aarati Dhungel 2072/BCT/01, BE Commuter Engineering III Semester Topper

#### **V** Semester

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

#### **VI Semester**

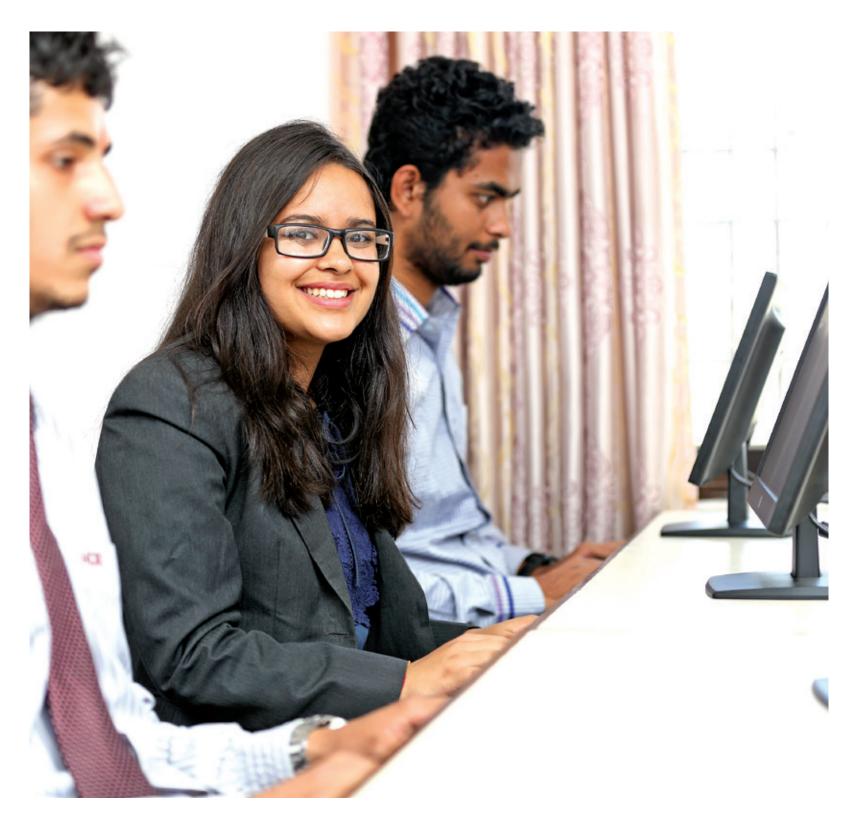
Engineering Economics Embedded System Object Oriented Analysis and Design Database Management Systems Artificial Intelligence Operating System Minor Project

#### **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 degree course with eight semesters 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 viz.

- Governmental Officer
- Consultant

- Researcher
- **Construction Expert**
- Academician

- Entrepreneur
- Designer
- **Project Manager**





Er. Madan Sharma HOD, Civil Engineering



### Course Structure (civil engineering)

#### 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







I never imagined I'd ever reach the point at which I stand today. But without good education, path to every success remains closed. I will take this opportunity to formally thank HCOE and its teachers for the assistance guidance.

insight and knowledge which were invaluable in this college process. I would highly recommend HCOE to anyone willing to join engineering.

Anuradha K.C 2071/BCE/9, BE Civil Engineering V Semester Topper

#### **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**

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Bachelor's degree in Architecture, started in 2066, is a ten-semester, five year academic programme. It has 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 class work, field visits and lab woks are conducted by extensive professionally experienced full time and various visiting faculties compromising 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 programme intends to produce qualified architects, urban planner, interior designer, landscape designer and building designer. Total intake capacity in this program is 48.

The courses are conducted through architectural exhibition, regular field visits, studio works.

#### **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. Umesh Dhimal, M Architecture HOD, Architecture



### **Course** Structure (architecture)

#### **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 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**

History of Architecture (Nepalese) Seminar and Directed Studies **Design Studio VII** Landscape Design and Site Planning **Professional Practice** Thesis Proposal and Research Elective II

### X Semester

Thesis Design



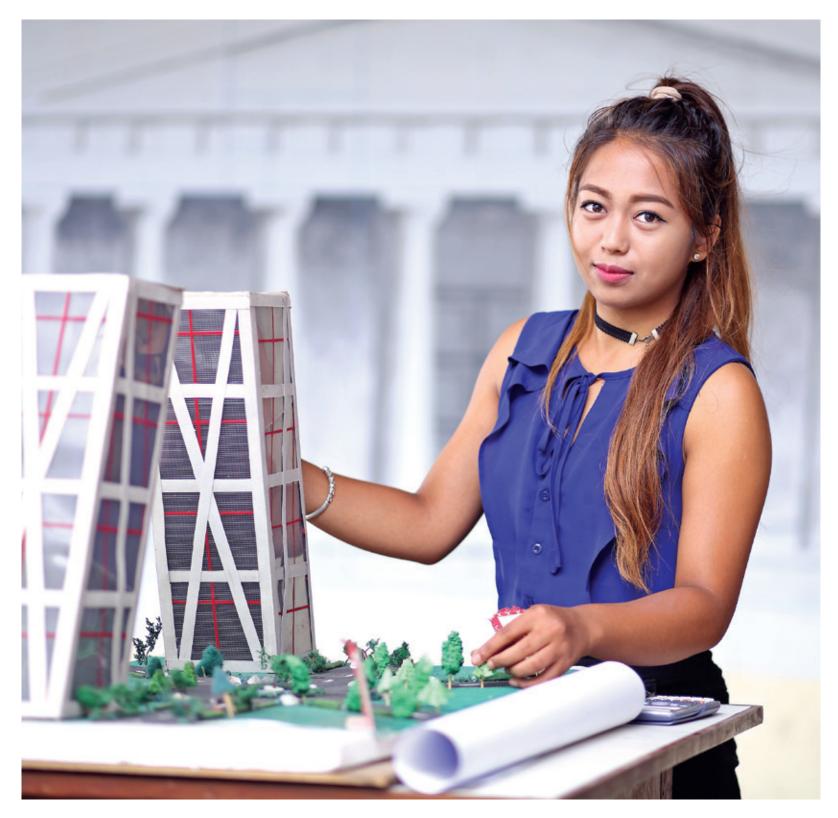


Himalaya College of Engineering has an excellent architectural community connecting both students and professionals. It enabled me to be more creative and logical; HCOE transformed my design thinking by combining sophisticated learning process. Studying here allowed me to obtain

broad range of skills required in this field. And now, I am able of conceptualizing idea to three dimensional forms and take my decision on design process.

**Nirajan Ghimire** 072/BAE/14, B. Architecture **III Semester Topper** 





**BSc CSIT** 

Bachelors 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 program provides the students with theoretical and practical knowledge which will enable students to solve complex problem of the IT industry. The program 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, programming.

#### **Career in CSIT**

The BSc CSIT graduates have prosperous career opportunities at different government, private and public organizations especially:

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





**Roshan Bhusal** MSc Information Technology Program Coordinator, CSIT



### Course Structure (BSC CSIT)

#### I Semester

Introduction to Information Technology Fundamentals of Computer Programming Probability and Statistics Calculus and Analytical Geometry Elective (any one): Physics I, Biology I, Geology I, Statistics I

#### Il semester

Digital Logic Discrete Structure Microprocessor Data Structures and Algorithms Linear Algebra Elective(any one): Physics II, Biology II, Geology II, Statistics II

#### **III semester**

Computer Architecture Object Oriented Programming Operating Systems Numerical Method Introduction to Management

#### **IV semester**

Theory of Computation System Analysis and Design Database Management System Computer Graphics Introduction to Cognitive Science Technical Writing

#### **V** semester

Computer Networks Simulation and Modeling Design and Analysis of Algorithms Artificial Intelligence Elective (any one): Microprocessor







Dream, Seen with an open eye, Dedication that one shows and direction provided to achieve what we long for, are three factors for attaining success. HCOE has helped me pave my path towards what I

want to achieve in coming future. The friendly and helpful nature of teachers, seniors and classmates have helped me a lot to mold myself to a strong candidate. This four year experience has been the most important years of my life while seeking my career. I am very thankful to all the family of hcoe.

Sushant Thapa 2070/CSIT/46, BSc CSIT VI Semester Topper Based Design, Applied Logic, E-Governance, Concepts of Wireless, Networking, International Business Management, International Marketing, Computer Hardware Design, Introduction to Cryptography

#### VI semester

Software Engineering Complier Design and Construction Web Technologies Real Time System Elective (any one ): Fundamentals of E-Commerce, Society and Ethics in Information Technology, Automation and Robotics, Digital System Design, Web Centric Computing, Net Centric Computing, Embedded System Programming, Image Processing

#### **VII Semester**

Advanced Database Management System Internet Technology Advanced Java Programming Project work Elective (any one): Information Retrieval, Database Administration, Network and System Administration, Software Project Management

#### **VIII Semester**

Data Warehousing and Data Mining Internship, Elective (any two): Decision Support System, Geographical Information System, Cloud Computing, Distributed and Object Oriented Database, Multimedia Database, Network Security, Distributed Networking, Advanced Networking with IPv6







#### **TEACHING FACILITIES**

HCOE lays emphasis on quality and practical education. In order to meet this objective, the College provides highly qualified and experienced faculty members for all the programmes. The faculty members of HCOE have long teaching experience and the visiting facility 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 all the programmes. The College also provides partial scholarship to few meritorious and intelligent students in some subjects. Besides, the student scoring highest marks in a semester is awarded semester topper scholarship which includes 100 percent of a semester's tuition fee.

#### **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 recognised 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. Following are the subjects for the examination: English, Mathematics, Physics, Chemistry, Basic concept of drawing.

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

#### **WORKING SCHEDULE**

The academic programmes in HCOE run in the morning shift from 7:00 AM to 2:00 PM and from Tuesday to Sunday. Monday is the regular holiday. However, the college administration opens up to 5:00 PM to facilitate the students, customers, governmental and non-governmental offices. The field visits, survey practical classes, seminars, trainings, workshops, extra classes etc. may run beyond this official hours.

# **Physical Facilities**

The college has its own seven storey building having plinth area of 6,500 square feet for academic program. There are three other college buildings and two hired buildings for labs, workshops, project works and cafeteria in the area of 21 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 of 3200 square feet is set for ECA programme at the top of the building with a capacity of 250 students.



#### LIBRARY

HCOE library has a huge collection of text books, references books and course manuals more than 22,000. It subscribes to various newspapers, magazines, and national and international research journals for its different departments. The newly published 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 instruments and equipment as laid by IOE and NEC. Some labs such as physics, chemistry, thermodynamics etc. are shared by all programmes while the others 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, 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 and CSIT 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**

The different labs in Civil Engineering are 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**

This is a fully equipped lab 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, Chyasal and cricket ground in the valley respectively. Students regularly participates on sport events organized other colleges.

#### **TRANSPORTATION**

The College has its own buses and light vehicle for site visits, field works, study tours. 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.

#### INTERNET

Students are facilitated by high speed, 15 mbps, online browsing of the internet in the college. The computer laboratories provides the internet service throughout the college hours and 24 hours during project works.



Asmita Sigdel, 2068/Arch/03, receiving Thesis Topper Prize with a cash of Rs. 50,000 from Asian Pants.

#### **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.

#### **ROBOTICS CLUB**

Robotics Club at HCOE places a platform for students to explore idea, innovation and development in robots. This is run by an active group of students who always intend to develop and design robots. These students work specially for designing, constructing, modelling, debugging and maintaining the robots, electronic projects, mechanical machinery models, embedded systems and also actively take interest in robotics research and development.



An Interaction Program with Er. Muni Bahadur Shakya, First Computer Scientist of Nepal

Since its establishment in 2006, it has been taking part in robotics competition among different Colleges in and outside the country every year. The club had got the first position in Grand Prix, 2064 - an Inter-Engineering College Robotics Competition organized on the initiative of Robotics Club of Pulchowk Campus, IOE. The Club has participated in February 2011 A.D in Robotics competition organized by IIT, Bombay, and is regularly participating in different events each year and outside the country.

#### **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 programing 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

#### Trainings at HCOE:

#### Department of Electronics and Communication Engineering

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

#### Department of Computer Engineering and Department of CSIT

- HTML and CSS
- PHP
- JAVA
- C#
- Advanced JAVA
- Android
- Python and machine learning
- Linux System Admin
- Oracle

#### **Department of Civil Engineering**

- SAP 2000 (Structural Analysis Programme)
- Smart Road (Road Design Software)
- GIS System
- 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

### **COLLEGE** ADMINISTRATION



Mr. Chiranjibi Devkota Administrative Officer

HCOE administration is run by an efficient managed team headed by Admin Officer. It coordinates with different departments and sections by providing facility for the smooth functioning of the college. It supervises Account, Library, Exam and Server Sections.



### Association with National and International Institutions

HCOE has made MOU with different institutions and universities for support of academic programmes. An MOU has been made with Georgia South Western State University in 2011 for student and faculty exchange program, and joint research and training. An MOU is made between TOYO Works Company Ltd., Japan and HCOE for placement of Civil Engineering graduates. HCOE has made another MOU with Tongren Polytechnic College, China for exchange program of teacher and student, joint research and training. The College is planning to established good relations between other universities and institutions of the globe for the mutual benefit of institutions and students. An MOU is made with Microsoft Innovation Centre Nepal and Luniva Tech to provide students trainings and seminars and workshops in IT and software development.

MOU between Nepal-Norway Alumni Association (NNAA) is made in 2015 for landscape design competition of Friendship Garden held on 2013. Similar MOU has been made with Asian Paints Nepal P (ltd) in 2016. Under the student exchange programme, Mr. Artur Lauritzen, a MSc final year student of Uppsala University, Sweden is currently working in internship.

Recently a MOU is made between the college and Kirtipur Municipality, Kathmandu to provide technical supports on urban convertation/engineering services.

I arrived in Himalaya College of Engineering as a summer intern and Nepal was a whole new experience for me. Being an intern in HCOE I learned a great deal about Nepal and its engineering practice and the welcoming manners of the college staff made me feel at home.

In the college I received the opportunity to teach students with trust and support from my department, which was utterly valuable to me. Consequently, I learned a great deal from teaching and also from the students themselves. Furthermore, I could observe the difference between engineering studies in Nepal and back home in Sweden. This, in turn has broadened my mind and given me perspectives that will be valuable in my future career.

**Mr. Artur Lauritzen** Intern, MSc Energy System Engineering Uppsala University, Sweden

# 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



### Himalaya Exhibition 2017 (HEx-2017)



Himalaya Exhibition 2017 (HEx-2017) was exhibited in the college premises from 14<sup>th</sup> to 16<sup>th</sup> July, 2017. Students 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 7,000 visitors observed the exhibition. The visitors were engineering students as well as students of school and science (10+2), guardians, professional industries, construction companies, consulting firms, software/hardware design and development companies.











### **Student Clubs in HCOE**



Aman Singh Rathore President



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.

President 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.



Pravin Shrestha President



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.



Bipin Karki President

#### 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 Electro

#### 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

Nikita Dulal President

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 2017.



HCOE Alumni is a forum of engineers who have passed their bachelor degree in computer, electronics and communication, civil engineering, architecture, and computer science and information technology from Himalaya College of Engineering.

Its objective is to put hands together with the college administration to conduct different academic activities, field visits, training, and so on. It also provides the platform for new fresh engineers, architects and IT personals to link with different organizations and companies, and to put a step forward on their professional career.





# **KMC Educational Network**

Kathmandu Model College (KMC), established in 2000, has its own educational network which consists of the Higher Secondary and Bachelor Level Programs such as +2, BBA, BSW, BBS and BA. The network runs many other academic programs such as MA (English), MBS and KMC School that runs classes from playgroup to class X. Since May 2007, Himalaya College of Engineering, affiliated to TU, has come under the umbrella of KMC network, and New Summit College also come under its network since 2011 A.D. In a few years span of time KMC has become a top-ranking College in the nation. The Network has following member institutions.

#### HIMALAYA COLLEGE OF ENGINEERING

(Affiliated to Tribhuvan University)

BE: Civil | Computer Electronics & Communication | B. Architecture Bsc. CSIT | Chyasal, Lalitpur, Tel: 01-5540555, 5547266

#### KATHMANDU MODEL COLLEGE

(Affiliated to Tribhuvan University)

BBA | BBS | BSW | BA | MBS | MA (English) | Balkumari, Lalitpur Tel: 01-5201331, 5201334

#### KATHMANDU MODEL HIGHER SECONDARY SCHOOL (Affiliated to HSEB)

+2: Science Management Bagbazar, Kathmandu Tel: 01-4242121, 4242015

#### **KMC SCHOOL**

Play Group to Grade X Buddhanagar, Kathmandu Tel: 01-4787111, 4782016

### NEW SUMMIT COLLEGE

(Affiliated to NEB/TU)

+2: Science | Management BBS | Bsc. CSIT Maitidevi, Kathmandu Tel: 01-4473901, 4488410

#### THE NEW SUMMIT SCHOOL

(A Wing of New Summit College)

Play Group to Grade X Maitidevi, Kathmandu Tel: 01-4414434, 4414737

#### **UNIVERSAL COLLEGE**

(Affiliated to Tribhuvan University)

+2: Science | Management Humanities | Fine Arts | BBA | BBS BA | MA (English) Maitidevi, Kathmandu Tel: 01-4442775, 4428321

#### APOLLO INTERNATIONAL COLLEGE (AIC)

(Affiliated to Pokhara University)

BBA | BBA-BI Lakhechaur Marg, New Baneshwor Tel: 01-4474845, 4474851

#### NATIONAL HIGHER SECONDARY SCHOOL

+2: Science | Management Humanities Balkumari, Lalitpur Tel: 01-5201331, 5201334

#### **BUTWAL MODEL COLLEGE**

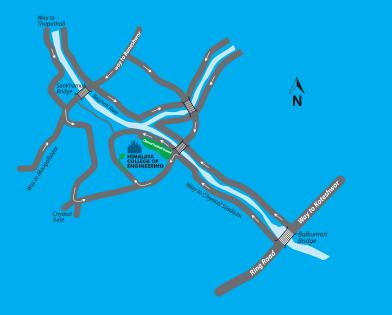
(Affiliated to Pokhara University)

BBA | MPGD Padsari, Rupandehi Tel: 071-429192, 429193

#### KATHMANDU MODEL RESEARCH FOUNDATION (KMRF)

Bagbazar, Kathmandu Tel: 01-4242865





Under the Management of KMC Educational Network



(Affiliated to Tribhuvan University)

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