

Technical Education is the Demand of Nation & Modern Age



An ISO 9001 : 2015
Certified College

Rapti Engineering College



Ghorahi Sub-Metropolitan- 16, Saniambapur Sarra, Dang

Tel : 00977-082-562601, 9857837255

E-mail : info@rec.edu.np

Web : www.rec.edu.np

Message from the Managing Director

Dear Parents & Students,

Many students dream of either going to Kathmandu or abroad in search for quality and technical education every year. Regarding the geographically and financially inaccessible to all and ease this dire need the technical institute, popularly known as Rapti Engineering College (REC, Dang) in Province no. 5 has been providing ample opportunities to the students oriented to technical education at an affordable cost in your door steps.



To be a globally competent scholar is today's real challenge for this every student needs an environment conducive to self learning with team work, guidance, high level counseling and sophisticated approach by experienced and cooperative lecturers.

No matter what you have done till now academically and professionally, what you do from now on is going to decide your future. The choices you make play a vital role for the solidarity of your future career. Therefore, your careful first step leads you to the competent and demanding scholar in the global market towards journey of excellence.

REC fosters a warm and friendly atmosphere where the students get better opportunity to explore own talent through trust and partnership in learning, Join REC and grow with us.

I hope our tireless efforts will bridge your dream to come true into career in domestic atmosphere with full pleasures.

Thank You !

Mr. Bhimsen Giri
Managing Director

Message from the Principal

I take great pride on welcoming you to our college on behalf of Rapti Engineering College. Since its inception in 2008, REC has been focusing on providing high quality education to students. REC was established in Mid-Western Region by dedicated Group of Academicians, Engineers & IT Professionals with the vision of building and developing the REC as a center of excellence for higher technical learning, research and innovation. Technical Education is the demand and necessity of Nation & Modern Age which truly transforms talents into technocrats.



Course offered by REC covers wide range of disciplines like Information Technology (IT), Computer Science, Civil Engineering with Electronics and Communication Engineering. These courses and programs are being offered to meet the need of competent human resources in the region. These courses are not only useful for the students looking for career but also for professionals keen on improving their skills and knowledge in these areas. We believe in fostering a climate that encourages learning & personal growth at REC. This is the place where you can find the college of your dreams. Our focus is on making sure that our students could receive high quality technical education relevant to the industrial demand of national and global market place.

Our faculties are committed to provide quality training and education for the students. Your education might be further strengthened by the diversity of the faculty and students in enabling exchange of ideas by effective learning pedagogy. I hope, you will find our program more educative and professionally rewarding as mentioned in the prospect. For more information, please visit at www.rec.edu.np.

Thank you !

Mr. Resham Giri
Principal



Introduction

REC is the first ISO 9001:2015 Certified modern academic institutions in Province no. 5. It was established in 2008 by a group of dedicated, technical, academic Engineering & IT professionals to meet the ever-growing need of quality technical education. It wishes to provide latest technological and engineering courses of global standard. The college has been running Diploma in Computer Engineering, Civil Sub-overseer, Electrical Sub-overseer and Basic Survey (AMIN) under CTEVT. More importantly, it has been also running Bachelor of Computer Application (BCA) since 2010, Bachelor of Civil Engineering and Bachelor of Electronics and Communication Engineering since 2011 in affiliation with Pokhara University.

Vision

Build and develop the REC as a center of excellence for creating technical professionals having competencies in harmony with the contemporary and future national needs.

Mission

- To create and continuously upgrade academic infrastructure.
- To improve the teaching learning process continuously.
- To focus productive research.
- To identify, based on an informed perception of National, regional and global needs, areas of expertise upon which the college can concentrate.
- To identify and undertake collaborative projects which can offer opportunities for long-term interaction with academia and industry.
- To develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a various technical professions.

- To help them attaining higher academic excellence, scientific temper, technical and professional competencies with life skills.
- To develop long term relation with other national and international educational institutions, government and non-governmental organization for creating motivational learning environment.

Values

- Academic integrity and accountability.
- Respect and tolerance for the views of every individual.
- Attention to issues of national relevance as well as global concern.
- Appreciation of intellectual excellence and creativity.
- An unbound spirit of exploration and judiciousness.

Objectives

- To provide the youth with the best opportunities and conducive learning environment towards higher education and research in engineering, technology and allied science.
- To increase library resources by 10% each year.
- To continuously improve the teaching system by problem based learning and other emerging teaching methodology in the 21st century.
- To execute the objective measurement chart for monitoring and evaluating the functional output in each department.
- To plan, design and execute at least one research program annually in the field of engineering and IT under the guidance of R & D department.
- To be a model national engineering college by increasing educational standard and quality.
- To deliver technically competence, socially progressive, economically viable, culturally broad based and ethically accepted life time educational skills.

Running Program

S.N.	Program	Intake
1.	Bachelor of Civil Engineering (BE Civil)	48
2.	Bachelor of Electronics and Communication (BE Elex. & Comm.)	48
3.	Bachelor of Computer Application (BCA)	48
4.	Diploma in Computer Engineering	48
5.	TSLC In Survey Engineering (AMIN)	40
6.	TSLC In Civil Engineering	40
7.	TSLC In Electrical Engineering	40

Proposed Program

S.N.	Program
1.	Diploma in Civil Engineering (Civil Overseer)
2.	Diploma in Electrical Engineering (Electrical Overseer)
3.	Diploma in Architecture Engineering
4.	Diploma in Forestry
5.	Diploma in Agriculture (Plant Science)



Dear Parents and Students,

You are warmly welcome to Rapti Engineering College (REC). People make a REC great, so whether you are a prospective student, current student/pass out graduate, professor, lecturer, researcher, staff member, parent, neighbor/visitor, your interest and passion are valued and appreciated.

Being a pioneer ISO 9001:2015 certified engineering college in the mid-western region, REC has been continuously focusing to advance knowledge and educate students in Engineering (BE- Civil and, BE- Electronics & Communications) and IT (BCA) in affiliation with Pokhara University that will best serve and support the national and global challenge in the 21st century.

One of the prime faculty of REC, the Department of Civil Engineering offers 4 year BE-Civil programs producing highly qualified Civil Engineers to meet the growing demand in the infrastructure development project in Nepal & abroad. I believe that a prospective student who choice REC for studying BE-Civil might be wise lifetime decision and we are always here to support & fulfilling your dreams by providing a conducive teaching learning environment.

*Er. B.R. Joshi, MSc. Engg. [Civil-CM]
ACD. COR & HoD-BE Civil*

Bachelor of Civil Engineering (BE Civil)

REC has been offering Bachelor level program in Civil Engineering (BE-Civil) with its state of art infrastructure in the Province 5. The objective of this course is to train students developing technical and analytical skills required to enable them to function and practice as professional civil engineers on all aspects of physical infrastructure development related civil engineering works such as design, construction, operation and maintenance services. The students choosing this program undergo systematic theoretical and practical learning in the area of material engineering, structural engineering, environmental engineering, transportation engineering, water resources engineering, water supply and sanitation engineering, foundation engineering, geotechnical engineering and surveying. During the end of the study, they will be able to develop hands on skills to deal and cater with broad range of infrastructure development tasks and play vital roles for the national development of Republican Nepal.





It is my pleasure to welcome you to Rapti Engineering College, an institution under Pokhara University and CTEVT. Choosing where to continue your education is a major decision and I believe that REC will be a choice you will not regret, especially if you are ambitious and determined to succeed. As a result of our size, we are able to focus on

the needs of each individual student and aim to nurture each student in order to ensure their journey REC is a successful and improves future prospects.

REC is committed to provide students with a strong, broad based fundamental engineering education and prepare the students for careers in industry, teaching and other research organizations. We also plan to develop entrepreneurial skills in students so that they would drive the spirit of growth of our economy and would be able to generate employment opportunities for other qualified and skilled people. I would be pleased to welcome you to REC at any time.

Thank You !

Er. Madhav Adhikari
Co-ordinator



I feel lucky being one of the students of REC, a renowned Engineering College in Mid Western Region Nepal. Proficient lectures/Professors and their delivery, enough resources and friendly behavior of students and staff are some

fascinating facts about this college. As we can find a variety of programs in this college, the college can be a good choice for different interest in gaining quality education and help to promote their career.

A part from all these the college regularly inspects the activities of the students and guides for the betterment of educational and extra performances which help to enhance academically, personally and professionally in the future days.

Er. Deepak Khadka
Pokhara University Topper
Engineering Faculty

Career Opportunities

After successful completion of BE Civil course, Being civil engineering graduates (Civil Engineers) of this program, they will have a good opportunity to take part in the infrastructure development of the nation. Nepal being a developing country, it has to build various infrastructures requiring development of huge number of highway and railway projects, airport, hydropower projects, irrigation projects, water supply and sanitation projects, building projects (residential, official, commercial, hospitals, schools and colleges, colony housing and apartments etc). Thus, Civil Engineers have major role to play in such projects through surveying, planning, designing, estimating, construction supervision, project management and routine maintenance works. Civil engineer can build their career in their chosen field as a:

- * Civil Engineer.
- * QA/QC Engineer.
- * Planning Engineer
- * Material Engineer.
- * Construction Engineer/site Engineer & many more.
- * Project Engineer.
- * Property Valuator.
- * CAD Engineer.
- * Surveying Engineer.

Qualified Civil Engineers will have high potential of employment opportunities in the following organization for their future career development:

A. Government Sectors

- * Department of Roads.

- * Department of Civil Aviation & Authority.
- * Department of Irrigation.
- * Department of Water Supply & Sanitation.
- * DOLIDAR.
- * Suspension Bridge Division.
- * Department of Urban Development & Building Construction.
- * Nepalese Army.
- * Nepal Police & Armed Force.
- * Metropolitan City Corporation
- * Sub metropolitan City Corporation.
- * Municipalities and Rural municipalities (All).
- * Department of Archaeology.
- * National Planning Commission & All Concerned Ministry including Regional Offices.
- * Nepal Electricity Authority.



B. Non Profit Making Organization

- * NGOs & INGOs.
- * Research Organization.
- * Academic Institutions (Universities & Colleges).
- * Diplomatic Missions Residing in Nepal.

C. Corporate & Private Organizations

(National & International)

- * Consulting Firms.
- * Contracting Companies.
- * Housing & Real Estate Companies.
- * Nepal Telecom and KUKL.
- * Infrastructure Developers (eg. Hydro Power, Fast Track Projects, Airport & Railway Development etc).

Eligibility for Admission

Student seeking admission to Bachelor of Civil Engineering must have completed Intermediate in Science (I.Sc.), +2 Science (Physics or Biology) and Diploma in Engineering or equivalent, from recognized Institution, securing at least 2nd division marks.



I'm really proud to be a student at REC. REC is an ideal platform for a young student interested in civil engineering like me. I have full of confidence that I will achieve my goal. I am getting full co-operation from department. Different extra training and project works empowering me to do special development in the future. Due to locally availability of engineering college, I am fully satisfied and happy to be member of Rapti Engineering College.

Bikash GC
7th semester
BE Civil

CURRICULUM STRUCTURE OF BACHELOR OF CIVIL ENGINEERING (BE CIVIL)

Course Description	Credit Hours
FIRST SEMESTER	
Engineering Mathematics I	3
Physics	4
Thermal Science	2
Engineering Drawing	2
Programming in C	3
Basic Electrical Engineering	3
SECOND SEMESTER	
Engineering Mathematics II	3
Chemistry	4
Object Oriented Programming in C++	3
Communication Technique	2
Mechanical Workshop	1
Applied Mechanics I	2
THIRD SEMESTER	
Engineering Mathematics III	3
Civil Engineering Materials	2
Fluid Mechanics	3
Strength of Materials	3
Engineering Geology	3
Applied mechanics II	2
Project I	1
FOURTH SEMESTER	
Probability & Statistics	3
Surveying I	3
Numerical Methods	3
Hydraulics	3
Structural Analysis I	3
Basic Electronics Engineering	2

Course Description	Credit Hours
FIFTH SEMESTER	
Soil Mechanics	4
Surveying II	3
Water Supply Engineering	3
Structural Analysis II	3
Building Technology	3
Engineering Hydrology	2
Project II	1
SIXTH SEMESTER	
Irrigation Engineering	3
Design of Steel and Timber Structures	3
Sanitary Engineering	3
Foundation Engineering	3
Concrete Technology and Masonry Structure	3
Survey Field Project	1
SEVENTH SEMESTER	
Hydropower Engineering	3
Transportation Engineering I	3
Design of RCC Structure	3
Estimating and Valuation	3
Engineering Economics	3
Elective I	3
EIGHTH SEMESTER	
Transportation Engineering II	3
Construction Project Management	3
Engineering Professional Practice	2
Elective II	3
Project III	5



Bachelor of Computer Application (BCA)

Fast growing information technology & communication systems have become vital/ indispensable components of almost every organization's strategic plans. In this modern age of IT, many organizations and companies have been present to take advantage of new information technologies and communication systems. They are looking for expert IT professionals who can apply principle of computer science to solve the real life problems & utilize the possibilities in the form of global village created by the interface between the business world and technology. Considering the great potential and lacking the qualified manpower in the nation, REC has been launching this BCA programs since 2010. As a result, students joining in this graduate program have exposed to various fields of computer applications and latest development in the Global IT industry.

Career

The BCA graduates of REC will get opportunities to build their career in association with software engineer, IT Consultant, IT Controller, System Designer, Management Information System and Project Management Expert. In more specifically speaking, they will have a lucrative career in the global IT industry and various organizations (including Banking Sectors).



I am proud to be a student of REC. It provides a friendly teaching environment, interactive classes, extensive practical exposure and many more. I believe, REC provides the stepping stone for my future career building. Close

inspection of every staff and all the students of the college is really highly appreciable. Last but not least, the college deserves full faith of the students and guardians.

Anita Sen
BCA 5th Semester

They can work in the various capacities such as:

- Software Developer
- Programmer.
- Application Programmer.
- System Analyst / Programmer.
- Database Designer and Administrator.
- Networking Specialist.
- User Interface Designer.
- Web Designers.
- E-Commerce Executive.
- Computer Sales Support Professional.
- Multimedia Designer.
- IT Security Experts.
- Software Testing & Quality Assurance Professional.

In addition, BCA graduates will get access to join universities for obtaining more advance degree of their choice such as MCA, MIT, M.Sc.IT / M. Sc. Computer and MBA / EMBA.

Eligibility for Admission

Student seeking admission to Bachelor of Computer Application (BCA) must have completed Intermediate in Science (I.Sc.), +2 Science (Physics or Biology), Diploma in Engineering or equivalent, Math, Computer Science, Management with Math or Computer, Education Science from recognized Institution, securing at least 2nd division marks.



REC is one of those rare institutions which not only imparts academic excellence through its high quality education but also practical, moral, social and behavioural knowledge to the students. REC is one of the modern academic institutions having the best choice to mitigate the need of the students with ample exposure and opportunities. It wishes to provide latest technological and engineering course of global standard. It has highly recognized the needs of society, nation and accordingly produces the excellent human resource in the globe.

Damodar Giri, English Lecturer

CURRICULUM STRUCTURE OF BACHELOR OF COMPUTER APPLICATION (BCA)

Course Description	Credit Hours
FIRST SEMESTER	
English- I	3
Mathematics I	3
Digital Logic Systems	3
Computer Fundamental and Application	3
Programming Logic and Techniques	3
SECOND SEMESTER	
Business & Technical Communication	3
Mathematics II	3
Financial Accounting I	3
Programming Language	3
Fundamentals of Electrical and Electronics	3
Project I	1
THIRD SEMESTER	
Object Oriented Programming	3
Data Structure & Algorithms	3
System Analysis and Design	3
Financial Accounting II	3
Microprocessor	3
FOURTH SEMESTER	
Numerical Methods	3
Visual Programming	3
Operating System	3
Database Management System	3
Computer Graphics & Multimedia Technology	3
Project II	2

Course Description	Credit Hours
FIFTH SEMESTER	
Computer Architecture	3
Java Programming	3
Web Technology I	3
Mathematical Foundation & Computer Science	3
Software Engineering	3
SIXTH SEMESTER	
Network and Data Communication	3
Fundamentals of Probability and Statistics	3
Applied Economics	3
Organization and Management	3
Web technology II	3
Project III	3
SEVENTH SEMESTER	
E-Business	3
Simulation and Modeling	3
Linux	3
Internship	3
Elective I	3
EIGHTH SEMESTER	
Mobile Technologies	3
Management Information System	3
Elective II	3
Project IV	6



जननी जन्मभूमिश्च स्वर्गादपि गरीयसी !



Diploma in Computer Engineering

Rapid development in the microelectronics and computer science has created the need for specialized human resource that could fuse these two cutting edge technologies. This fusion of knowledge and technology has led to evolution of highly specialized professional called Computer Engineering. Computer Engineers have wide ranging career options in business organizations, production/manufacturing and service sectors, and IT industries.

Jobs Galore/Opportunities

The Diploma Engineers of this REC can start their own business as a young and energetic entrepreneur in their chosen field of education. In addition, the Diploma Engineers will get opportunities to build their career as a Jr Computer Engineer or Programmer/IT Officer, Web Designer, Graphics Designer in the

following sectors:

- Manufacturing Industries and Service Sectors.
- Commercial Banks, Development Banks, Finance and Cooperatives.
- Airport Terminal.
- Insurance Companies.
- University/School/College/Hospital
- Nepal Police and Nepal Army.
- Consulting Firms.
- Super Markets/Malls and Retail Stores.
- IT Industries.
- Media Companies.
- Hotel and Tourism Sectors and many more.

Eligibility for Admission

Student seeking admission to Diploma in Computer Engineering must have completed SEE passed with 'D+' Grade in English and 'C' Grade in Math & Science.



REC stands as a platform lined with the significance of excellence in the horizon of technical education. That's why I am proud to be part of REC and believe it really stands sustainable future of its students and the nation at large.

I feel my dreams come to true while moving ahead with quality education and proper guidance by the college faculties.

Aliza Thapa
2nd Semester
Diploma in Computer Engineering



I feel very lucky to have joined the family of Rapti Engineering College and also I am very thankful to its learning environment. REC has helped us in paving a better and sure path to mature our potentials. I am very grateful to my teachers for explaining thing to us in the best possible ways. The environment of REC is like "a home away from home" and one can never feel unease because of the enthusiasm, cooperation, dedication and care; that always prevail here.

Suresh Luhar
5th Semester
Diploma in Computer Engineering

CURRICULUM STRUCTURE OF DIPLOMA IN COMPUTER ENGINEERING (DCOM)

First Semester

Communication Nepali
 Communication English
 Engineering Mathematics I
 Engineering Physics I
 Engineering Chemistry I
 Computer Fundamentals
 Engineering Drawing
 Computer Programming in C

Second Semester

Engineering Mathematics II
 Engineering Physics II
 Engineering Chemistry II
 Logic Circuits
 Object Oriented Programming in C++
 Electrical Engineering
 Web Technology & Programming I

Third Semester

Web Technology and Programming II
 Engineering Mathematics III
 Data Structure & Algorithm
 Database Management System (DBMS)
 Microprocessors
 Electronic Devices & Circuits

Fourth Semester

Data Communication
 System Analysis and Design
 Computer Graphics (CG)
 Computer Architecture
 Repair & Maintenance
 Visual Programming
 Statistics & Probability

Fifth Semester

Computer Networks
 Management Information System (MIS)
 Applied Telecommunication
 Distributed Computing
 Operating System
 Elective - I
 Minor Project

Sixth Semester

Multimedia Technology
 Internet Technology
 Data Mining
 Software Engineering
 Elective - II
 Major Project

Infrastructure

- State-of-the-art infrastructure.
- Entire college is Wi-Fi enabled.
- College bus provides transportation facilities to students and staffs.
- Well-furnished cafeteria which provides healthy, hygienic and nutritious meals, snacks and beverages. Well-equipped indoor and outdoor sports facilities.

Why REC, Dang ?

- An ISO 9001:2015 certify college.
- Industry oriented curriculum.
- Nationally renowned visiting faculty.
- Collaboration with national leading universities and colleges.
- Design and programming oriented teaching.
- Exposure to practical field.
- Emphasis on emerging technologies.
- Learning organization and focus on placements.
- Compulsory continuous professional education for faculty.
- Expert lectures from industry.
- Work on live projects.
- Total Quality Managements (TQM) and Quality Circle.
- Contribution towards community development.
- Linkage with institutions of excellences.
- Collaboration with professional bodies.
- Internationally adopted grading system of evaluation.
- Focus on practical education inclusive of sustainable development.

College

REC spreads over 13 ropanies (1 Bigha) land with green environment surrounded by open agricultural land and local residential buildings. It is located Just 3 KM west from Tulsipur Chowk, Ghorahi, Dang.

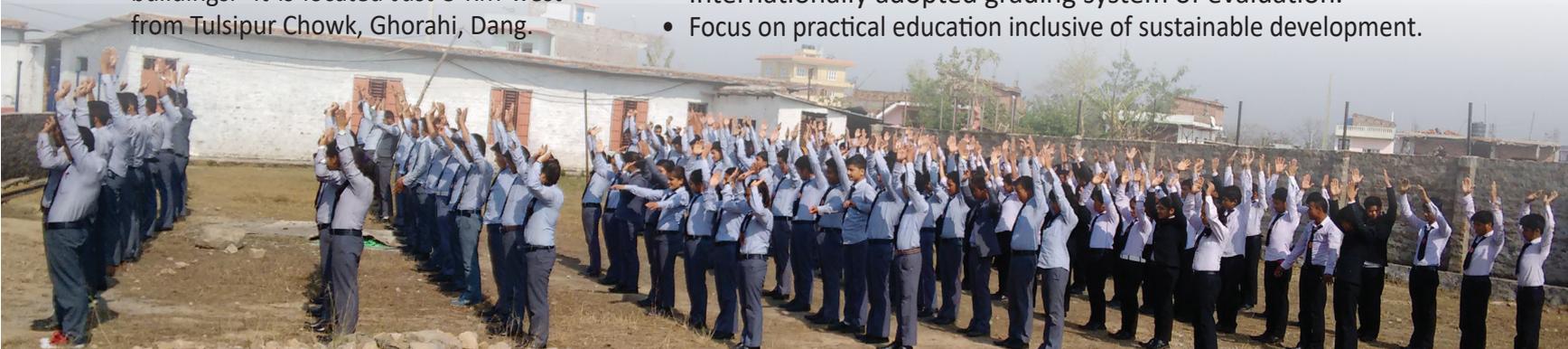


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