



M.Sc. in Construction
Management

B.E. Civil

B.E. Electrical & Electronics

B.E. computer

Pure ENGINEERING
College







I take the pleasure in welcoming you to the United Technical College, College of Engineering (U-TEC), Bharatpur, Chitwan, an Engineering College dedicated to the proper growth and development of each and every student for a better career prospect. The College is all set to bring out the potential within each student and provide proper guidance so that their potentials can be utilized to make them future engineers capable of meeting any challenge that will be faced by them after leaving the college. The college provides full support to improve their communication skills, critical thinking abilities, moral values and sense of responsibility. All efforts are made to improve the creativity and problem solving abilities of the students so that they can contribute their best to the society and the country.

The infrastructure has been developed with most modern equipment; provisions have also been made to upgrade the same keeping pace with the technological advancements of the time. Our primary goal is to become one of the most prominent and excellent educational Institute in the Nation. U-TEC has a team of highly qualified, experienced and dedicated faculty who devote their time not only to teaching but also for the overall development of the students. Further, faculties from other renowned institutions are invited to deliver guest lecturers to help augment their studies beyond syllabus. We are confident that the students passing out from this college will be technically sound, confident and have good leadership skills.

I wish all the best to all the prospective students,

Chudamani Khanal

Chairman

I feel glad to introduce to you United Technical College (U-TEC), College of Engineering, established in 2009 AD (2066, BS), Now it stands as a premier Engineering College in Chitwan, Bharatpur with well known reputation. The faculty in the college is one of the high-quality in its class, and the college has a tie-up with several reputed Universities and Research Institutes in the country so as to enhance the quality of its graduating students. The institute is at the verge of a very rapid growth and it is being aimed to achieve the Centre of Academic Excellence in technical education status in future. Technical education in the country has made phenomenal growth during the last two decades. The need for high quality managers and technical experts still continue and the future belongs to those who will have the vision to boldly look for opportunities to capitalize with a passion for change and strive for excellence in their work.

We are striving hard at our end to prepare and develop high quality professionals to overcome the challenges faced by the enterprises due to globalization and liberalization process. To achieve this, and based on very encouraging feedback from various stakeholders, the college has reasonably equipped necessary facilities to empower the students with a touch of industrial applications. This has generated sufficient enthusiasm among them. As the Principal of this esteemed organization, I extend my support to the students and the faculty to bring up future leaders. My view is that emphasis in choosing the academic institution should be broad the prospective student must identify the institutions/colleges having academic excellency for further study.

U-TEC aims at not only educating the young to be successful Engineers, Managers and Entrepreneurs but also to churn out socially responsible human beings of tomorrow. I convey my best wishes to all the prospective students and their parents for a successful future and good education.

Er. Baburam Upadhyaya

Principal



Academic Director

Welcome to the United Technical College, College of Engineering (U-TEC). As the Academic Director for U-TEC, it is a great pleasure to welcome you to our college which is located in the heart of Chitwan, Bharatpur.

We believe that every student is unique and has his or her own unique talents. As an educator, it's our responsibility to open their minds, nurture their talents and help them reach their peak of excellence. Our education program emphasizes the development of a National and Global spirit, an ability to analyze and solve problems and the development of respect and understanding for different cultures. Students at our college learn to become skilled and confident communicators.

U-TEC consistently pursues "student first" policy, discipline in the college is a basic requirement for all academic and administrative activities. This year, 2019 (2076 BS) promises to be another year of dramatic and exciting developments at U-TEC. Student counselling will remain our main focus in comming time too. Our environment is good and our faculties have open door policies and are excited to advice and support students in the pursuit of their interests.

U-TEC would like to assure our continuous commitment towards quality and excellence in education to make the learning at U-TEC meaningful and rewarding. U-TEC family, have emerged stronger, better prepared and safer after the shock of recent earthquakes. So, U-TEC would like to call all the aspiring students and the guardians to make a right choice and join our hands to ensure engineering study in an environment just suited for it!

I am extremely proud of U-TEC's Graduate and Undergraduate programs & highly encourage you to learn more. U-TEC is also having priviledged for enrolling 4th batch of Graduate student (M.Sc. CM) at the college.

Prof. Keshab Datt Awasthi (Ph.D.)

Academic Director









MISSION

- To provide students opportunities and environment of learning and help them to attain high level of academic quality, scientific aspiration, technical and self-employment professional competence and skills.
- To prepare and train students to serve the society and the people, enhance the design quality of engineering works and improve the life and to comprehend the need for ethical standards in personal, social and public life.
- To help the students to conduct different types of research in engineering, write research reports and prepare papers for presenting in conferences and seminars in engineering and technology related issues of national and public interest.
- To train the students for providing necessary technical and consultancy services as demanded by the government, private sectors, NGOs and INGOs.
- To enhance the knowledge and practical skills of the students by providing training in latest iob oriented technology.

STUDENT ENROLLMENT

Eligibility for Bachelor Programs

Minimum 2nd division / C Grade (in each subject) in Higher Secondary / 10 + 2 or equivalent examinations from any recognized board or council in science discipline.

Admission Selection Procedure

Entrance examination



Application Procedure

Download application form

www.unitedtechnicalcollege.edu.np, fill it submit to office of admission.

The application form can also be obtained from the office of admission, U-TEC.

Eligibility for M.Sc. Programs

Selection of students for enrollment in M.Sc. program is based on entrance result of M.Sc. Program entrance examination conducted by University. The admission will be based on the merit list published by the University.



LOCATION **AND TIMING OF THE PROGRAMS**

We schedule our undergraduate programme and Master's Programme at U-Tec building, Bhojad as per following time,

Master Level:

5:30 PM till 9:10 PM during summer 4:30 PM till 8:10 PM during November through January

Undergraduate Level:

6:00 AM till 2:00 PM

SCHOLARSHIP

There are three categories of scholarships available at U-TEC College.

- 1. Full Scholarship: As per Pokhara University/Ministry of Education's norms & standards.
- 2. Limited scholarship based on: Merit
- 3. Semester wise performance based scholarships*
- (If the students in concern obtain the same SGPA, the scholarship amount is shared equally.)

If a student is eligible for two or more kinds of scholarships in a semester, the student will receive the one with a higher value as far as that semester is concerned.

ACADEMIC SCHEDULE

The academic schedule is based on the academic calendar of Pokhara University, which consists of two semesters in an academic year. Normally, the Fall semester starts in September and the Spring semester starts in March. The admission may commence in the Fall and/or in the Spring semester.

GRADING SYSTEM

Students are awarded by the letter grade in the basis of his/her aggregated performance in the internal and semester end examination in the individual subjects.

 $= \frac{H_1 x G_1 + H_2 x G_2 + H_3 x G_3}{H_1 + H_2 + H_3}$

Masters Evaluation Grade Point

Letter Grade	Marks	Grade Point	Description
А	Above 90	4.0	Excellent
A-	85-89	3.7	
B+	80-84	3.3	
В	75-79	3.0	Good
B-	70-74	2.7	
C +	65-69	2.3	
С	60-64	2.0	Satisfactory: Min. Req.
FI	Less than 60	0.0	Fail

Bachelors Evaluation Grade Point

Grade Point	Description	Percentage		
4.0	Excellent	90 above		
3.7		85-90		
3.3		80-85		
3.0	Good	75-80		
2.7		70-75		
2.3		65-70		
2.0	Satisfactory	60-65		
1.7		55-60		
1.3		50-55		
1.0	Minimum Req.	45-50		
0	Fail			
	Point 4.0 3.7 3.3 3.0 2.7 2.3 2.0 1.7 1.3 1.0	Point Description 4.0 Excellent 3.7 3.3 3.0 Good 2.7 2.3 2.0 Satisfactory 1.7 1.3 1.0 Minimum Req.		





Sports Week 2076

SEEN.

OUR FACILITIES

ADVANCE RESEARCH PUBLICATION

Advance Research (ADR) Publication is an official publication partner of U-TEC. All the 80 + Journals published by ADR are accessible for our student & faculty without any cost. We encourage our students &



faculty to publish their research, projects and share their knowledge through publication to wide range of readers. All the editorial members and receivers of ADR are available for online interaction with our student from the globe to share their knowledge & experience.

LIBRARY

The library is well stocked with large volume of relevant books, daily newspapers and journals. It is well-equipped, spacious, fully computerized and supported by internet across.

TECHNOLOGICALLY SOPHISTICATED LABS

U-TEC has well-equipped Science Labs, Civil Engineering Labs, Electrical & Electronics Engineering Labs and Computer Labs.

INTERNET FACILITIES

To enable student and staff to observe the fast preached world of information technology, high speed internet facility is provided within the college premises.



Welcoming Chief Guest Er. Buddhiraj Joshi, Dean of Science & Technology, PU at Inauguration Program of Nexus Magazine.

EDUCATIONAL AND FIELD VISITS

Different educational tours and field visits are conducted as per the course requirements of Pokhara University

CAFETERIA

Quality and hygienic foods/snacks are prepared and served at reasonable rates from the cafeteria.

TRANSPORTATION

Daily bus trip is scheduled and operated through different area of Bharatpur Town, Tandi, Eastern Chitwan & Gaindakot every morning. College uniform specified by the college rules and regulation is compulsory while entering the college premises and travelling by college bus.

MICROSOFT INNOVATION CELL

U-TEC has signed MoU with Microsoft Innovation Center, Nepal and is recognized as Microsoft Innovation Center, Nepal Innovation Cell, MICNIC UNITED, which provides genuine, legal and free software as per DreamSpark Premium program to all MICNIC UNITED faculty, staff and students creates a ground for Microsoft Student Partners (MSP).

HOSPITAL FACILITY

NPI Narayani Samudayik Hospital, Bharatpur has a provision of 20% discount for the U-TEC Students, faculties & admin staff.

EVALUATION SYSTEM

Each course is assigned a certain number of credits depending on its lecture, tutorial and practical work hour in a week. One lecture per week is assigned for one credit as a general rule. The performance of the students in each course is evaluated under internal and semester end examinations. Internal evaluation is made through home assignments, class assignments, presentations, mid-term assessment and class tests. Semester end examination is conducted by Pokhara University.

Teacher bieng felicitated at a program





Inauguration Program of Nexus Magazine



Voice of Our

Dean List

I take an immense pleasure in writing about a short note of my college, United Technical College, college of engineering. I have always been fascinated by engineering tools which I wished to adept through a quality education and development of engineering skills. For that I selected U-TEC. Serene environment, well equipped laboratory, spacious classroom, experienced and helpful faculties and moreover cooperative administration have made the college one of the best place to be to pursue civil engineering degree. This has become my second home in the course of engineering.

Thank you U-Tec!



Ganesh Poudel 2014 Dean List (CGPA 3.75) Bachelor in Civil Engineering, Batch 2010



Nikhil Mishra 2017 Dean list (CGPA 3.7) Bachelor in Electrical and Electronics Engineering, Batch 2013

Proper guidance is the key approach to desired consequences. Under the guidance, there comes excellence. U-TEC has been that obligatory guidance to me. I am assured

that among many reasons behind my academic enrichments, U-TEC is one of the

fundamental aid to me. U-TEC is academically very rich and has provided me with an

excellent academic background. I am thankful towards U-TEC for helping me shape my

of it.

Since I was a child, I had a great impression on my mind towards the engineering. Later, it became my field of interest as it was because I saw my seniors well established in the society who look very smart as well. Choosing to acquire bachelor degree in Electrical & Electronics Engineering was the greatest decision I made for my future as it helped me to grow smart and intellectual with immense skills in various field related to Electrical & Electronics Engineering. The peaceful environment of the college, caring experienced faculties, and well facilitated infrastructure are the reason of choosing U-TEC College as the best.



Deepesh Neupane 2016 Dean List (CGPA 3.91) Bachelor in Civil Engineering, Batch 2012

Pursuing knowledge and learning engineering skills is not a cup of cake to achieve. It takes a lot of endurance and continual arduous efforts with proper caring environment. I perceive it here. Experienced teachers and students caring administration, wellequipped laboratories and sound environment have been the pushing factors to bring out the best in me. U-TEC is the sacred place for engineering study. Thank you U-TEC,

for allowing me to be a part of the family.

With a highly effective administration and a team of experienced teachers who are at all times ready to inspire the students and help them learn, U-TEC has been successful to position itself as the preeminent engineering college within the very short phase of its establishment. I really found it the right place for a learner who aspires to achieve good academic background for engineering education in both practical and theoretical knowledge as well. I'm glad to be a part of U-TEC.



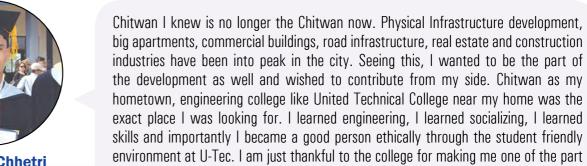
Susan Acharya 2017 Dean List (CGPA 3.85) Bachelor in Civil Engineering, Batch 2013



academic destination.

Prakash Chhetri 2018 Dean list (CGPA 3.73) Bachelor in Civil Engineering, Batch 2014

career goal. When it comes to suggestions, U-TEC is all you need and is your desired **Ekraj Khanal** 2018 Dean list (CGPA 3.83) Bachelor in Civil Engineering, Batch 2014





M.Sc. in **CONSTRUCTION MANAGEMENT (CM)**

Rapid changes in the construction technology have demanded the highly specialized human resources to organize and manage construction works. In addition to this, construction activities, both in public and private sectors, are not only increasing but also becoming complex. Because of this, there is a great demand for qualified and competent Construction Managers in the country and abroad. Therefore, MSc. Construction Management program at U-TEC intends to produce managers capable of using state of art, knowledge and skills in organizing and managing the construction works.



SEMESTER I

- Project Planning and Control
- Human Resource Management
- Statistical Analysis
- Professional Ethics and Liability in Construction
- Economics for Construction Managers

SEMESTER II

- Construction Policies, Environment and Law
- Financial Management
- Construction Project Management
- Management of Construction Plant and Equipment

SEMESTER III

- Construction Project Engineering and Administration
- Construction Safety Engineering
- Research Methodology
- Construction Management in Developing Countries
- Elective II

SEMESTER IV

Thesis

- Engineering Mathematics I
- Physics

SEMESTER I

- Thermal Science
- Engineering Drawing
- Programming in C
- Basic Electrical Engineering

SEMESTER II

- Engineering Mathematics II
- Chemistry
- Object Oriented Programming in C + +
- Communication Technique
- Mechanical Workshop
- Applied Mechanics I

SEMESTER III

- Engineering Mathematics III
- Applied Mechanics II
- Civil Engineering Materials
- Fluid Mechanics
- Strength of Materials
- Engineering Geology
- Project I

SEMESTER IV

- Probability & Statistics
- Survevina I
- Basic Electronics Engineering
- Numerical Methods
- Hydraulics
- Structural Analysis I

SEMESTER V

- Building Technology
- Engineering Hydrology
- Structural Analysis II
- Soil Mechanics
- Water Supply Engineering
- Surveying II
- Project II

SEMESTER VI

- Irrigation Engineering
- Design of Steel (Limit State) & Timber Structures
- Foundation Engineering
- Sanitary Engineering
- Concrete Technology & Masonry Structure
- Survey Field Report

SEMESTER VII

- Design of RCC Structure
- Transportation Engineering L
- Estimation Valuation & Specification
- Hydropower Engineering
- Engineering Economics
- Elective I

SEMESTER VIII

- Transportation II
- Construction Project Management
- Engineering Professional Practice
- Elective II
- Project III



CIVIL ENGINEERING

The twenty-first century holds a variety of new challenges for civil engineering, and calls for methodical handling and effective designing, or re-designing for the sustainable infrastructure expansion to fulfill the basic needs. However, society has a blind spot for its basic needs, preferring instead to focus on glamorous developments. Problems that result from this thinking involve housing the population, addressing decaying urban infrastructure, maintaining the environment, dealing with natural disasters and climate changes, and transporting people and goods.

Besides, Nepal being in the rigorous physical development phase, the situation has provided ample opportunities for the civil engineers in different sectors. Civil engineering covers a wide areas of physical infrastructure developming sector in the field of hydropower, highway, irrigation, water supply, airway and railway both in government and non-government agencies.

So, considering enrolling in civil engineering would be right choice.

B.E. in

ELECTRICAL & ELECTRONICS ENGINEERING

So far the electricity demand in Nepal has always been greater than the supply, despite being rich in water resource/hydropower potential. Presently, the situation is changing as private, foreign sector and Nepal Electricity Authority have been continually investing in developing the clean energy. This has created better job opportunity in government, hydropower, power plants and renewable energy projects as well.

The syllabus also includes communication engineering which in turn have increased their field up to telecommunication industries such as Nepal Telecom, Ncell, Nepal Airlines Corporation and in different television networks.

The college has been providing different teaching and research opportunities industrial visits in current technological advancement. The college has a full functioning robotic club, which has been performing a project, has been providing different industrial trainings (Electrical AutoCAD, Aurdino, Matlab, Rasbervoi). Therefore, join Electrical & Electronics Engineering programme and help to transfer the Nepal's Energy Sector and make the future easier.

Seats

SEMESTER I

- Engineering Mathematics I
- Physics
- Thermal Science
- Engineering Drawing
- Programming in C
- Basic Electrical Engineering

SEMESTER II

- Engineering Mathematics II
- Chemistry
- Object Oriented Programming in C++
- Communication Technique
- Mechanical Workshop
- Applied Mechanics I

SEMESTER III

- Engineering Mathematics III
- Electrical Engineering Materials
- Network Theory
- Logic Circuits Electronic Devices
- Electromagnetic Fields and Waves

SEMESTER IV

- Engineering Mathematics IV
- Numerical Methods Instrumentation
- Electronic Circuits Microprocessors
- Electrical Machine

SEMESTER V

- Organization & Mgmt.
- Advanced Electrical Machine
- Signal & System
- Transmission and Distribution Mission
- Control System
- Probability & Statistics

SEMESTER VI

- Power Electronics
- Power System Analysis
- Communication System Engineering
- Power Plant & Equipment
- Switch gear & Protection
- Research Methodology

SEMESTER VII

- Engineering Economics
- Transmission Line Design Machine Design
- Advanced Instrumentation
- Elective I
- Project I

SEMESTER VIII

- Utilization of Electrical Power
- Professional Ethics in Engineering
- High Voltage Engineering
- Power Plant Design
- Proiect II Elective-II

The computer is the most wonderful aift of science to the modern society. The computer can do all the tasks of human. Thus, after the invention of computer, the gap between human and machine has been bridged up.

Career opportunities for computer engineers span a wide consumer electronics.

So, if you are considering studying computer engineering

STRUCTURE **PROGRAM**

SEMESTER I

- Engineering Mathematics I
- Chemistry
- Communication Technique
- Programming in C
- Basic Electrical Engineering
- Mechanical Workshop
- SEMESTER II Engineering Mathematics - II
- **Physics Engineering Drawing**
- Thermal Science

- SEMESTER III
- Data Structure and Algorithms
- Network Theory
- SEMESTER IV
- Database Mamt. System
- Microprocessor

SEMESTER V

- Computer Graphics Theory of Computation

- Simulation and Modeling
- Object Oriented Programming C++

Applied Mechanics

- Engineering Mathematics III
- **Electrical Engineering Material**
- Electronics Device and Circuits Logic Circuits
- Engineering Mathematics IV
- Instrumentation
- Programming Technology
- Project I

- Probability and Statistics

- Object Oriented Software Engineering
- Elective-I

SEMESTER VII

Artificial Intelligence

Computer Networks

Elective-II

- Social and Professional Issues in IT Organization and Management
- Information Systems

Numerical Method

Operating System Computer Architecture

- SEMESTER VI
- Data Communication
- Embedded System
- Project-II
- **Engineering Economics** Image Processing & Pattern Recognition
- ICT Project Management

SEMESTER VIII

- Digital Signal Analysis and Processing
- Elective-III
 - Project-III

COMPUTER ENGINEERING

range of industries government and nongovernmental agencies within and outside the country. Computer engineers are needed in companies that design and program integrated circuits, circuit boards, embedded and autonomous control, computer systems, and networked distributed systems. Computer engineers are employed in a broad range of industries including semiconductor. computer, web services, telecommunication, automotive, aerospace, robotics, medical, security, media, and

after your +2, you are making the right decision.

Engineering Lab

Strength of Material Lab



Electrical Work Bench



Machine Lab



Electromagnetic Field & Wave Lab



Hydro Power Lab



Structure Lab



Thermo Dynamics Lab

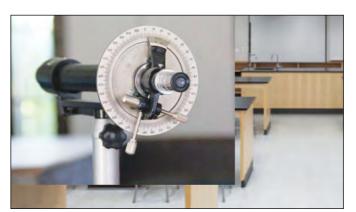


Soil & Foundation Lab

Engineering Lab



Concrete & Civil Engineering Lab



Physics Lab



Chemistry Lab



Computer Lab



Fluid Mechanics & Hydraulics Lab

Activities



A Five Day Intensive Learning & Workshop on Qualitative Research Methods by Experts, Dr. Wendy Hilman & Dr. Kylie Radel from Central Queensland University, Australia



Graduate Students Participating in an International Conference on Health Engineering in Disaster 2019



Students Attending in an Inauguration Program in U-TEC Hall



National Level Robotics Competition



Final Year Student Project Work - Wind Turbine



Final Year Student Project Work Suspension Bridge

Teaching & Non-Teaching Faculty Members

Academic Heads

Er. Baburam Upadhyaya	Principal
Prof. Dr. Keshab Datt Awasthi	Academic Director
Er. Niraj Bohara	Head of the Department
Er. Sulav Adhikari	Head of the Department

Administrative Chief

Mr. Binod Dhakal	Chief Administrative Officer
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Graduate Program Faculty Member

Er. Guru Prasad Dhakal Er. Birat Ghimire Dr. Purushottam Dangol Dr. Ujjwal Tiwari		Dr. Anjay Kumar Mishra	Mr. Kulchandra Pandit	
		Er. Ashok Kumar Shrestha	Mr. Shiva Hari Pandit	
		Mr. Madhav Adhikari	Mr. Rishi Chapagain	
		Er. Jagannath Gautam	Er. Ram Bharati	

Undergraduate Program Faculty Member

Er. Dipendra Kumar Shrestha	Er. Shyam Sundar Subedi	Er. Utsav Mahato	
Er. Diwakar Adhikari	Er. Sandesh Acharya	Er. Binod Chhetri	
Er. Arun Subedi	Er. Aakash Bhattarai	Er. Nawaraj Bhandari	
Er. Puran Subedi	Er. Anjit Neupane	Mr. Madhav Adhikari	
Er. Sanjeev Poudel	Er. Sujan Adhikari	Mr. Dipak Dhakal	
Er. Pukar Neupane	Er. Ashish Neupane	Mr. Krishna Pd Timalsena	
Er. Buddhi Sagar Bastola	Er. Ekraj Khanal	Mr. Rabi Raj Subedi	
Er. Praveen Karki	Er. Gopal Kharel	Mr. Raghab Adhikari	
Er. Dipak Koirala	Er. Damodar Bhandari	Mr. Hari Chandra Dhakal	
Er. Abhishek Poudel	Er. Sulav Ghimire	Mr. Roshan Sharma Bhattarai	
Er. Keshab Neupane	Er. Raju Dhakal	Mr. Hari Upadhyay	
Er. Samundra Kandel	Er. Shiva Shrestha	Mr. Roshan Sharma Bhattarai	
Er. Diwas Mainali	Er. Rupesh Shrestha	Mr. Pratik Dhakal	
Er. Deepak Khanal	Er. Sujan Poudel	Mr. Subhas Adhikari	

Visiting Faculty

Dr. Madhav Koirala	Er. Arun Nidhi Poudel	Mr. Bishnu Dutta Baral	Exam Chief
Er. Madan Sharma	Dr. Ram Sharma	Ms. Anjita Acharya	Exam Officer
Er. Narayan Prasad Duwadi	Er. Suman Kumar Jha	Mr. Sameer Upreti	Exam Assistant

Exam Section

General Administration

C.A. Anup Upadhyay	Charter Accountant	Mr. Chij Kumar Shrestha	Driver
Mr. Rabin Sapkota	Accountant	Mr. Min Bahadur K.C.	Driver
Mr. Ganesh Basaula	Lab, Civil	Mr. Prem Ghale	Security Guard
Mr. Top Prasad Adhikari	Lab, Mechanical	Mr. Prem Gurung	Security Guard
Mr. Ramnath Pokhrel	Lab, Civil	Mrs. Januka Magar	Assistant Staff
Mr. Bhuvan Chalaune	Lab, Computer, E&E	Mrs. Apsara Timilsina	Assistant Staff
Mrs. Mira Pyakurel	Librarian	Mrs. Kaushila Pariyar	Gardener
Ms. Samihana Paraiuli	Cashier		







ESTD: 2065

UNITED **TECHNICAL COLLEGE**Affiliated to Pokhara University

College of Engineering

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