

*New Beginning ...
Endless Possibilities !!!*



A UGC-QAA Certified Institution

NIET

National Institute of Engineering and Technology

Affiliated to Purbanchal University



BE

BIOMEDICAL ENGINEERING



BE

COMPUTER ENGINEERING



B. Tech

ARTIFICIAL INTELLIGENCE



Message from the Chairman

Dear Students, Guardians, and Well-wishers!

I feel both proud and honored to lead one of the best technical colleges in Nepal, the National Institute of Engineering and Technology (NIET). Our achievements, including awards from the Ministry of Education and QAA certification from UGC Nepal, are the result of the hard work of our students, teachers, and staff.

Every year, more students want to join NIET because of our excellent results. To meet this demand, we have moved to a larger building with more space. We are also improving our labs and research facilities with the latest equipment to give students better learning opportunities. Our focus is not just on academics but also on research and the overall growth of our students. Many of them have completed outstanding research projects and publications.

Since our first batch graduated in 2009, more than 40% of our students have gone abroad for higher studies, enrolling in Master's and PhD programs. They are studying in countries like the USA, UK, Canada, Germany, Australia, Japan, and many more. Many have received scholarships such as Erasmus Mundus and Singa Awards. Those who stayed in Nepal have also done well, with some even starting their own companies and creating jobs for others.

Especially, we are also excited to announce new academic programs starting from this session. NIET will now offer Bachelor of Engineering in Computer Engineering (BE Computer), and Bachelor of Technology in Artificial Intelligence (B. Tech AI) programs. Likewise, we are planning to run a Bachelor of Information Technology (BIT) & Master of Engineering in Biomedical Engineering (ME Biomedical Engineering). These courses will prepare students for the fast-growing tech industry globally.

Finally, I want to sincerely thank our teachers and administrative staff for their hard work and dedication in making National Institute of Engineering & Technology a great institution.

Thank you!

Er. Laxman Pokharel





INTRODUCTION

National Institute of Engineering and Technology (NIET), former College of Biomedical Engineering and Applied Sciences (CBEAS), established in 2005, is affiliated to Purbanchal University and registered with Nepal Engineering Council. There are only a few colleges in Asia providing higher education in Biomedical Engineering and this is the only one in Nepal. Within a very short span of time, this college has established a coveted place in this field and efforts continue to make it a unique institution in the field of biomedical education. The college uses all its initiatives in facilitating new opportunities for students and gain a new height.

The college is imparting world class education providing professional opportunities here and abroad.



BE Biomedical (144 Seats)

Bachelor in Biomedical Engineering



B. Tech in AI (48 Seats)

Bachelor of Technology in Artificial Intelligence



BE Computer (48 Seats)

Bachelor in Computer Engineering





BE Biomedical

Bachelor in Biomedical Engineering

Biomedical Engineering is the application of engineering principles to biology and medicine, combining the design and problem-solving techniques of engineering with medical sciences for advanced healthcare treatment. It covers a wide range of areas from cell and tissue engineering to modeling of human organs, implantable devices, diagnostics, and therapeutic medical devices and equipment.



Why Biomedical Engineering?

- ★ Prepare & Craft the MedTech Problem Solver Engineer
- ★ Analyze Novel Solutions to Complex Medical Problems
- ★ Develop Real-time Medical Technology
- ★ Focus on improving the Quality & Length of Human Life
- ★ Build & Maintain the Complex Array of Medical Equipment
- ★ Become an Interdisciplinary Communicator for Engineering & Medical Science

Course Structure

Semester I	
S.N	Subject
1	Mathematics I
2	Physics
3	Basic Electronics Engineering
4	Computer Programming
5	Engineering Drawing
6	Basic Electrical Engineering

Semester II	
S.N	Subject
1	Mathematics II
2	Chemistry
3	Basic Mechanical Engineering
4	Electro-engineering Materials
5	Introduction to Computational System
6	Digital Electronics

Semester III	
S.N	Subject
1	Mathematics III
2	Bio-Engineering Materials & Components
3	Human Anatomy and Physiology I
4	Fluid Mechanics & Thermodynamics
5	Cell Biology and Immunology
6	Microprocessors

Semester IV	
S.N	Subject
1	Applied Mathematics
2	Electronic Devices and Circuits
3	Applied Sociology
4	Biomechanics
5	Biomedical Embedded System Design
6	Human Anatomy and Physiology II

Semester V	
S.N	Subject
1	Probability and Statistics
2	Numerical Methods
3	Implantable Devices
4	Control Systems
5	Tissue Device Interactions
6	Communication Systems

Semester VI	
S.N	Subject
1	Engineering Economics
2	Medical Industry Management
3	Medical Imaging I
4	Biomedical Instrumentation I
5	Medical Electronics
6	Biomedical Digital Signal Processing

Semester VII	
S.N	Subject
1	Organization & Project Management
2	Biomedical Instrumentation II
3	Medical Imaging II
4	Elective I : Structural & Functional Biomaterials, Biomedical Equipment Maintenance I, Physiological Modeling
5	Elective II : Minimally Invasive Medical Technology, Medical Image Processing, Principles of Tissue Engineering, Theory of Medical Robotics
6	Project

Semester VIII	
S.N	Subject
1	Engineering Professional Practice
2	Elective III : Neural Network, Medical Informatics, Telemedicine and Telehealth, Biomedical Applications of Nanotechnology, Biomedical Equipment Maintenance II, Bio-Electromagnetism
3	Internship
4	Project



B. Tech in AI

Bachelor of Technology in Artificial Intelligence

The Bachelor of Technology in Artificial Intelligence program is designed for those who dream of creating the future. This course brings together knowledge from computer science, mathematics, and data science to help students learn how to solve problems and build intelligent systems. By exploring this exciting field, you will be ready to face real-world challenges and make a positive impact on industries and communities.



Why B. Tech in AI?

- ★ Create & Empower the Global Tech Industry Leaders
- ★ Employer-focused Program
- ★ Build & Train AI Models
- ★ Analyze Large Datasets
- ★ Develop Intelligent Applications
- ★ Become a Computer Vision Engineer (and more)

Course Structure

Semester I	
S.N	Subject
1	Introduction to Programming
2	Digital Logic
3	Calculus
4	Introduction to Artificial Intelligence
5	Technical Report Writing & Presentation
6	Society & Professional Ethics

Semester II	
S.N	Subject
1	Object oriented Programming
2	Artificial Intelligence & Intelligent Systems
3	Microprocessor & Assembly Language
4	Probability & Statistics
5	Linear Algebra
6	Project I

Semester III	
S.N	Subject
1	Database Management System
2	Data Structure & Algorithm
3	Computer Organization
4	Operating system
5	Differential Equations
6	Project II

Semester IV	
S.N	Subject
1	Numerical Methods
2	Computer Networks
3	Design & Analysis of Algorithms
4	Programming for AI
5	Introduction to Data Science
6	Project III

Semester V	
S.N	Subject
1	Machine Learning
2	Optimization Techniques
3	Embedded Systems
4	Pattern Recognition & Image Processing
5	Data warehousing & Mining
6	Project IV

Semester VI	
S.N	Subject
1	Object Oriented Software Engineering
2	Computer Vision
3	Deep Learning
4	Speech & Natural language Processing
5	Research Methods
6	Project V

Semester VII	
S.N	Subject
1	Internship
2	Reinforcement Learning
3	Cloud Computing
4	Project VI
5	Elective I : Computer Vision: Image & Video Processing, Surveillance Video Analytics, People detection & Bio-metric Recognition
6	Elective II : Mathematics: Introduction to Statistical Learning, Optimization methods in Machine Learning/Convex Optimization, Kernel Methods, Bayesian Data Analysis

Semester VIII	
S.N	Subject
1	Internship
2	Reinforcement Learning
3	Cloud Computing
4	Project VI
5	Elective III : Computing/IoT: Smart Product Development, Predictive Analysis & IoT, Modeling & Simulation, Pervasive Computing
6	Elective IV : Data Science: Fundamentals of Big Data Analytics, Data Analysis & Visualization, Business Intelligence, Social media Analytics



BE Computer

Bachelor in Computer Engineering

This course blends core principles of computer science with engineering fundamentals, focusing on hardware and software systems, programming, networking, and data management. With hands-on experience, cutting-edge tools, and a focus on innovation, the B.E. in Computer Engineering prepares graduates to meet the challenges of the digital age and become leaders in the tech industry.



Why BE Computer?

- ★ Architect & Builder of the Intelligent Computing System
- ★ Empowering a Versatile Problem-Solver
- ★ Focus on crafting an Intelligence into Silicon
- ★ Develop Robust Devices, a Power of the World
- ★ Build a Complex Firmware Model
- ★ Become an Embedded Systems Designer

Course Structure

Semester I	
S.N	Subject
1	Mathematics-I
2	Physics
3	English for Technical Communication
4	Computer Programming
5	Fundamentals of Computing Technology
6	Engineering Drawing
7	Workshop Technology

Semester II	
S.N	Subject
1	Mathematics-II
2	Chemistry
3	Object Oriented Programming
4	Digital Logic
5	Applied Mechanics
6	Basic Electrical Engineering

Semester III	
S.N	Subject
1	Mathematics-III
2	Data Structure And Algorithm
3	Object Oriented Analysis And Circuits
4	Electronic Device And Circuits
5	Applied Sociology
6	Project-1

Semester IV	
S.N	Subject
1	Computer Graphics
2	Database Management System
3	Discrete Structure
4	Microprocessor
5	Communication System
6	Python Programming
7	Probability and Statistics

Semester V	
S.N	Subject
1	Algorithm Analysis and Design
2	Computer Architecture and Design
3	Numerical Methods
4	Operating System
5	Engineering Economics
6	Research Methodology
7	Project-II

Semester VI	
S.N	Subject
1	Artificial Intelligence
2	Computer Network
3	Embedded and IoT System
4	Software Engineering
5	Theory of Computation
6	Control System

Semester VII	
S.N	Subject
1	Distributed and Cloud Computing
2	IT Project Management
3	Simulation and Modelling
4	Elective-I : Image Processing & PR
5	Elective-II : Mobile Computing
6	Project-A

Semester VIII	
S.N	Subject
1	Cyber Security
2	Engineering Professional Practice
3	Elective-III : VB.Net, C#
4	Elective-IV : Geographical Information System
5	Project-B
6	Internship

MAJOR HIGHLIGHTS & ACHIEVEMENTS OF THE COLLEGE

This is the only affiliated college in Nepal, the first among Purbanchal University colleges, and the first Engineering College in Kathmandu Valley to receive the QAA Institutional Accreditation Certificate from the University Grant Commission (UGC), Nepal.

NIET co-hosted the 4th International Conference on Infectious Diseases and Nanomedicine (ICIDN-2023), held on Dec 15-18, 2023, in Kathmandu. Also we co-hosted another International Conference on Advanced Materials (Ka SAM-2024), held on Oct. 22-24, 2024, at Park Village Resort and Hotel, Kathmandu.

NIET was awarded a certificate & a cheque of NPR Two hundred and fifty thousand for being the BEST PRIVATE COLLEGE in Nepal from the Ministry of Education on the occasion of the 37th National Education Day-2073 and International Literacy Day.

The 9th Microsymposium on Applied Sciences (Nano/Bio) 2025 was successfully held on 29th March 2025 at NIET. In that event our students won the best poster award.

The college organized two International Conferences on "Medical Materials, Devices and Regenerative Medicine" (MMDRI) in the year 2008 and 2014, which were inaugurated by the First President of the Republic of Nepal, Rt. Honorable Dr. Ram Baran Yadav, and Vice-President of Nepal, Mr. Paramananda Jha, respectively. Both conferences were huge successes where Professors, scientists, Engineers, clinicians, and researchers from different countries all over the world, including the USA, UK, Australia, Japan, Belgium, China, Singapore, India, and Nepal participated and presented papers.

Most of our graduates are pursuing Master's and PhD programs in reputed Universities around the globe. More than 50 of them have already completed their PhD. Most of the graduates of this college have received full scholarships, assistantships, or research grants for their higher studies. Some of them have also received prestigious scholarships such as Erasmus Mundus (Europe), Marie Curie fellowship (Italy), and the Singa Award (Singapore).

It also successfully organized a one day international seminar on "Recent Developments in Biomedical Engineering" in Kathmandu in the year 2017, renowned professors, scientists, engineers, doctors, and scholars participated.

Some of our graduates have established their own companies and have provided jobs to many biomedical engineers. Since its inception in the year 2062, we have already produced 15 (Fifteen) batches with above 500 graduates, and to the best of our knowledge, none of the graduates are found to be unemployed.

Our students have received first prizes in paper and poster presentations at various national and international conferences. Many articles written by our students have already been published and are being published in international journals like Photodiagnosis & Photodynamic Therapy, Engineering Reports, Dalton Transactions, International Journal of Biomedical & Advanced Research, Journal of Engineering in Medicine, International Journal of Creative & Innovative Research in all Studies, and many more.

We have been providing internships to foreign students, and some of our students are also going to foreign countries for the same reason. We have already established a partnership with the International Association for the Exchange of Students for Technical Experience (IAESTE) for this purpose.



Placement

Abroad

- University of Cambridge, UK
- Wake Forest Institute for Regenerative Medicine, USA
- Nanyang Technological University, Singapore
- Harbin Institute of Technology, China
- University of New South Wales, Australia
- AstraZeneca, USA
- Mayo Clinics across various states in USA
- Waterford Institute of Technology, Ireland
- Hannover Medical School, Germany
- Indian Institute of Technology, India & more

Government Hospitals

- TU, Teaching Hospital
- Patan Academy of Science & Technology
- Nepalese Army Institute of Health Sciences
- Armed Police Hospital, Nepal Police Hospital
- Paropakar Maternity and Women's Hospital
- B.P. Koirala Institute of Health and Sciences
- B.P. Koirala Memorial Cancer Hospital
- Kanti Children's Hospital
- Shahid Dharmabhakta Human Organ Transplant Centre & more

Private Hospitals

- Grande Int'l Hospital
- Nepal Medcity Hospital
- Norvic Hospital
- Lumbini Medical Hospital
- Chitwan Medical College
- Biratnagar Eye Hospital
- Birat Medical College
- Bayodha Hospital
- Gautam Buddha Hospital
- Universal College of Medical Sciences
- National Kidney Center & more

Government Office

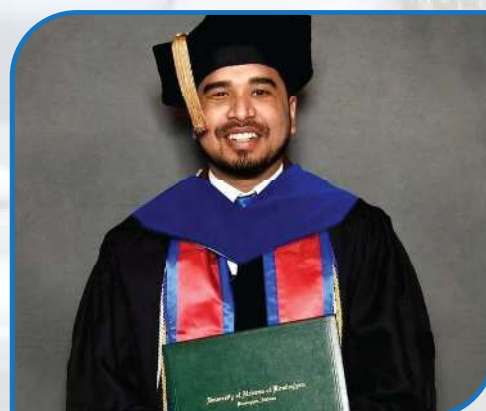
- Department of Health Service
- Ministry of Health and Population
- National Public Health Laboratory
- National Health Training Centre
- National Trauma Centre & more

Publication

Scientific Journal "BIOMED-NEPAL" has been published by the college since 2007. CBEAS has made significant progress in publishing research papers in international journals as well. Our faculty members have been assigned as guest editors for journals of publishers such as SAGE. We have made publications in journals by world-renowned publishers such as Wiley, Elsevier, SAGE, etc.

Our Graduates

50+ graduates have already completed their PhD degree and many more are pursuing higher studies at Drexel University (USA), University of Toledo (USA), Cleveland State University (USA), University of Akron (USA), University of Padova (Italy), Ghent University (Belgium), University of Texas (Dallas), University of Wisconsin (USA), Nanyang Technological University (Singapore), Harbin Institute of Technology (China) and other renowned universities in USA, Canada, Australia, Finland, Ireland, Austria, Belgium, Germany, Singapore, Switzerland, China, Japan, and India.



Our Alumni



Keshar B Thapa
Major (Technical),
Nepal Army



Nelson Mahat
Biomedical Engineer, Health
Logistics Management
Center, Hetauda



Monashree Kathayat
Biomedical Engineer, Patan
Academy of Health Science
(PAHS)



Rusha Acharya
Biomedical Engineer,
Tribhuvan University
Teaching Hospital



Samriddha Rana
Country Manager, WHO



Som Sapkota
Biomedical Engineer (Service,
Sales & Clinical Application)
Dubai, United Arab Emirates



Ashish Chauhan
Biomedical Engineer
Department of Health
Services, Ministry of Health
and Population



Chanda Bhandari
Postdoctoral Associate,
University of Texas at Dallas

Testimonials



Kritika Bhandari
Recent Graduate

My journey at the College of Biomedical Engineering and Applied Sciences (CBEAS), now known as the National Institute of Engineering and Technology (NIET), was a transformative experience that shaped both my career and character. One of the most admirable aspects of my academic journey was the faculty. Regardless of their age, every teacher demonstrated deep expertise and genuine passion for their subjects. Every teacher was patient and created a respectful and encouraging classroom environment. To my knowledge, our institute was among the very few in Nepal to offer research opportunities on such a complex and cutting-edge topic, which greatly enriched my academic and research skills. What I miss most is the homely atmosphere, where discipline and friendliness went hand in hand, and collaboration came naturally. My time at CBEAS/NIET was truly a chapter of discovery, growth, and lifelong connections.

My experience at the College of Biomedical Engineering and Applied Sciences (CBEAS) has been incredibly rewarding. Guided by the college motto, 'Innovating for a Healthier Tomorrow', I have had the privilege of learning from dedicated & passionate teachers, who go above & beyond to support their students. The state-of-the-art labs & well-stocked library have provided me with the perfect environment to enhance both my academic & practical skills. Engaging in hands-on projects has allowed me to apply theoretical knowledge to real-world scenarios, making the learning process both challenging & fulfilling. The college also offers vibrant campus life, with extracurricular activities, workshops, and student events that have helped me develop leadership, teamwork, and communication skills. Overall, my experience here has been truly enriching, thanks to outstanding resources, supportive faculty, and a strong emphasis on innovation.



Bishal Bhandari
Third Year Student



Sadikshya Neupane
Final Year Student

With a profoundly viable administration and a team of experienced educators who are always ready to inspire and motivate students, CBEAS has successfully positioned itself as a preeminent engineering college. Its well-equipped laboratories, calm environment, and great library facilities have been the driving force to bring out the best in me. Additionally, the cordial relationship between the senior and junior prompts a positive learning environment. I find CBEAS to be an ideal platform for acquiring knowledge and pursuing my career with proper guidance. Being a pioneer biomedical engineering college established with the motto of educating enthusiastic youth with excellence, it has been contributing to broadening the educational horizon of the nation. The academically rich CBEAS, in my opinion, is the ideal road to a bright future and my best decision. I feel great pleasure and honor to be identified as a CBESIAN.

ECA & CCA Activities



NON CREDIT COURSES



django

python

SEO

ORACLE



Tally



FACULTY

Surya Prasad Aryal

Principal, M.S. Electrical Engg., USA

Shekhar Khanal

Vice Principal, M.S. Biomedical Engg., USA

Rishi Baniya

Academic Coordinator, MSc Microbiology, TU

Dipesh Sapkota

Head of Department, MSc Biomedical Engg., Belgium

Saurav Sharma

Asst. Professor, MS Biomedical Engg., UK

Mr. DB Devkota

Asst. Professor, BCA, MSc IT, MBA-F, India
MSc Project Management,
MSc Business Development, France

Pawan Kumar Karna

Asst. Professor, MBA, BE Electronics, India

Anuj Purush Dhakal

Asst. Professor, Master in Health Care,
B.E. Biomedical, PU

Raj Kumar Shrestha

Lecturer, B.E. Mechanical, UK

Kishori Kunwar

Lecturer, B.E. Biomedical, PU

Basanta D. Bhandari

Lab Incharge, B.E. Electronics, PU

Kushal Devkota

Teaching Assistant, B.E. Biomedical, PU

Sulav Bastola

Asst. Professor, PhD Scholar, Biomedical Engg.
(on study leave), USA

Mr. Yogendra B Mahata

Asst. Professor, MCA, M Phil. ICT, NOU

Mr. Dinesh Dawadi

Asst. Professor, BSIC, M. Phil. ICT, NOU

MS. Ranjana Dhakal

Asst. Professor, MBA, PU

STAFF

Amit S Shrivastav

Sr. Officer, IT & Exam

Dharma Bir Joshi

Sr. Officer, Accounts

Daya Krishna Pokharel

Officer, Facility

Prem Ghimire

Officer, Admin

Pratiksha Kafle

Assistant Officer, Admin

Abhishek Shrivastava

Asst. Officer, IT

Uma Thapa

Asst. Officer, Library

Ratna Maya Awal

Asst. Officer, Library

Umesh Thapa

Asst. Officer, Store

Anjali Timilsina

Sr. Assistant, Reception

Sabeena Koirala

Assistant, Accounts

Kala Chaulagain

Service Assistant

Tara Acharya

Service Assistant

Ram Bir Tamang

Head, Security Guard

Ram Bahadur Bogati

Assistant Security Guard

Lal Mani Sharma

Assistant Security Guard

Santosh Gurung

Assistant Security Guard

Chandra Bdr Rakhal

Gardener

Shyam K Dheke

Driver

EMERITUS FACULTY

Vinod Srivastava

Professor Emeritus, English

Bhesh Raj Kandel

Professor Emeritus, Electronic &
Communication Engineering

VISITING FACULTY

Surya Pd. Adhikari

PhD Engineering

Prof. Vinod Parajuli

PhD, Mathematics

Prof. Rajani Shrestha

MSc in Anatomy and Cell Biology

Prof. Shanta L. Shrestha

MSc in Medical Physics

Bikash Bahadur Shrestha

Assoc. Professor
M Tech, Biomedical Engineering

Achyuta Nanda Mishra

Assoc. Professor
M.E. Information & Communication

Sachitananda Mishra

Asst. Professor
MTech. System and Signal Processing

Ramesh Chandra Timilsina

Assoc. Professor
PhD, Mathematics

Tinku K. Pandit

Asst. Professor
MSc Medical Anatomy

Ajay Kumar Kadel

Asst. Professor
MSc in Information System Engg.

Hari Sundar Shrestha

Asst. Professor
Master in Physiotherapy

Sudip Gaire

Asst. Professor, MSc Physics

Rabindra Sharma

Asst. Professor, MBA

Shankar Kumar Karki

Asst. Professor, MSc Chemistry

Madhab Gautam

Asst. Professor, PhD Scholar, Chemistry

Jay P. Kapari

Asst. Professor, MSc, Probability & Statistics

Narayan Poudel

Asst. Professor, MA Sociology

Madav Sapkota

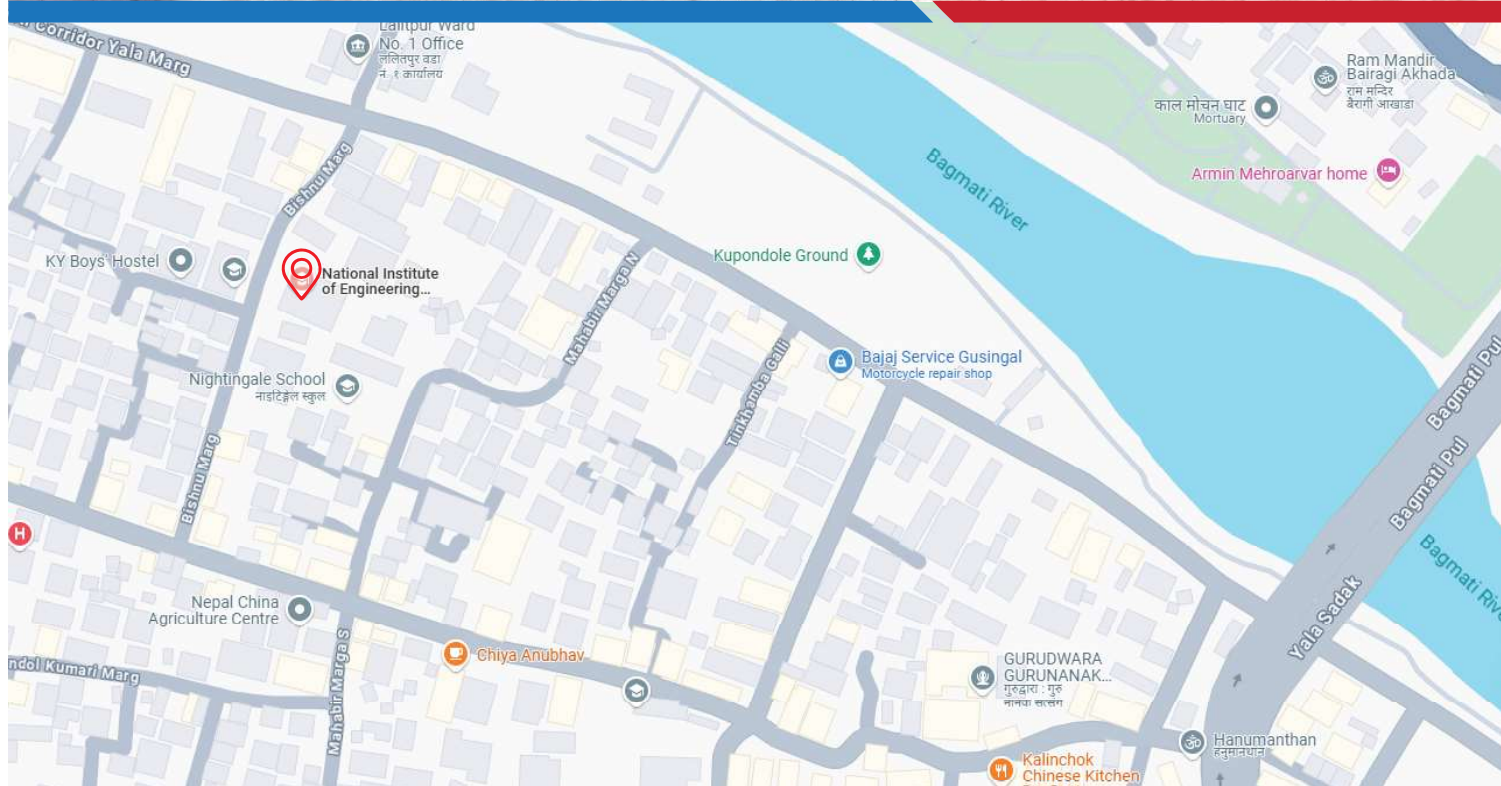
Lab Instructor, MED/ISc

Shristi Tandukar

Lab Instructor, BSc Biotech.



Scan Me & Get
Scholarship Information



Find us at
Kupondole, Lalitpur
(Bagmati Corridor)



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Our Website
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