"a centre for excellence in science and technology enriched with GNH values"






Contents

Welcome to CST 2
Why choose CST? 3
The College Experience 5
- Why study with us? 5
- Campus Facilities 7

All about YOU 9
Courses 12
- B. E. Civil Engineering 12
- B. E. Electrical Engineering 13
- B.E. Electronics and Communication 14
- B.E. Information Technology 15
- B. Architecture 15
- Courses in development 16



College of Science & Technology

916	Students
5	Undergraduate Programmes
125	Faculty and Staff
56	International Partners
106	Exchange Students
46	Exchange Staff

Welcome to CST

Choosing a university is one of the most important decisions that you will ever make. This prospectus will provide you with a brief introduction to life at CST, the courses and programs, and will take you through the application process.

CST offers you the chance to experience engineering education in Bhutan. That statement has four meanings. First, the standard of instruction is the same as that of any outstanding universities in the world. Second, the method of classroom instruction is global in its emphasis on individual initiative, active learning and the application of knowledge. Third, student life on campus is rich with clubs, sports and cultural events. Fourth, the curriculum is organized according to the pattern of semesters and courses elsewhere in the world.

We encourage you to visit our wonderful campus, inspect our state of- the-art facilities, talk with students, meet members of the faculty and discover for yourself why so many bright young men and women have made CST their first choice.

Every academic year, representatives from the College Management visit several countries to introduce CST to prospective scholarships and student-exchange opportunities. These tours usually include attending international education conferences, visits to universities, staff exchange, students exchange and one-on-one meetings with prospective exchange partners, in addition to other activities. For more information on our partners, please check the EU Scholarship section on our website.

Why choose CST?

WHATEVER YOUR PASSION,
YOU CAN MASTER IT AT CST.

CST is a place where brilliant minds assemble and collaborate, where they pool together their individual talents across departments in service of big ideas and creative solutions. It is a vibrant community teeming with students collaborating with experts and specialists: a hub of innovation and creativity. It is an intersection of diversity, a launching pad for a brilliant career, and a highly unique state of mind.

It is a perfect environment in which to pursue your passion.
Here, the future is envisioned each day. And remade each day after.

Imagine the possibilities.





The College Experience

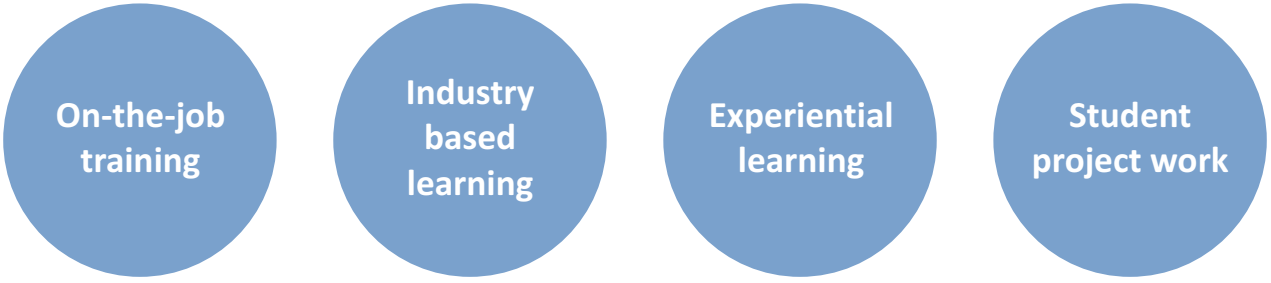
Your university years are a time to invest in your future. Your academic work and classroom experiences help you develop your mind, giving you tools for success in your chosen career. Student activities expand your horizons even further. Opportunities such as internships, clubs, contests and student publications allow you to develop the talents you know you have and perhaps discover new ones. Invest your time, your mind and your spirit in CST and reap the benefits of your hard work and dedication in years to come. We are there for you every step of the way.

Why study with us?

Our students leave with a greater sense of purpose, a global outlook, and the skills and confidence to make positive change- to their own lives, and to the lives of those around them.

Collaboration is the key to modern learning- sharing ideas, looking at an issue from a range of perspectives, and working together to solve problems. Being a student at CST will mean you'll have access to a wider variety of opportunities: more research projects, more international exchanges and work-integrated learning.

What is work-integrated learning?





Our mission includes:

1. To offer internationally recognized programmes in science and technology.
2. To generate new knowledge through research and innovation to fulfill the needs of society.
3. To collaborate with stakeholders and provide expert services.
4. To provide community services o enhance GNH based society.

Campus Facilities

WE HAVE CREATED A LEARNING ENVIRONMENT THAT WILL BRING OUT THE BEST OF YOUR ABILITIES.

We provide free WiFi network in all the hostels, upgraded labs and computer network and infrastructure. We are proud of the range of facilities you have access to, both in and beyond the classroom.

Clubs and Societies

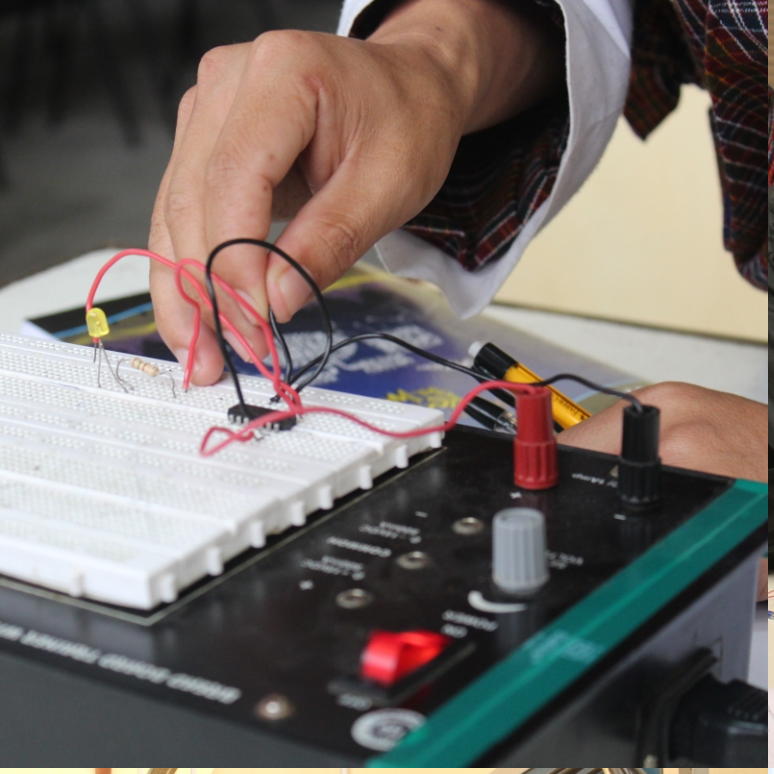
- Khuenphen Tshogpa
- GNH Club
- Spiritual Club
- Rangzhen Thuendrel Club
- Nangphey Zhenu
- Literary Club
- CST Youth Club
- Bhutan Toilet Organization Club
- Radio Club
- Maintenance Club
- RUB ACM chapter

Centres

- Centre for Renewable and Sustainable Energy Development
- Centre for Disaster Risk Reduction and Community Development

VLE

VLE is CST's virtual learning environment to support you outside lessons and provide college updates. You can access additional materials, independent learning tasks or assessments, whilst providing you with tutor group access and links to the college management. During your induction to college you will learn how to use VLE.






All about YOU

HANDS ON
ALWAYS ON

Your brilliant idea needs a place to design, develop, and produce it. The good news? At your disposal—connections with fellow students, professors, researchers, and labs that are humming 24 hours a day, 7 days a week.

At CST, you're at the centre of everything we do. We combine modern teaching practices with the latest technological advances. Our campus offers a high quality learning, teaching and research space to need the needs of students, academics and researchers.

New ways of teaching and learning are constantly developed, tested and integrated into your course to ensure you get the best college experience.

With small class sizes and supportive tutors, you will graduate ready to take on the jobs of today as well as the jobs of the future.

The college strives towards gainful employability and excellence in research.

Success by design

Of our many strengths, there's one that really separates us from the crowd. You'll get the finest career preparation at CST, and you don't have to take our word for it. One look at the employers says it all.

The College of Science and Technology is the first institute in the country to offer undergraduate degree programmes in engineering which were introduced in 2001 by Royal Command.

It is responsible to oversee the tertiary education system in the Kingdom of Bhutan in the field of science and technology.

Our programs stress the application of knowledge. Our rigorous, hands-on approach, coupled with the emphasis we place on experiential learning, gives you a remarkable advantage. Throughout your stay





Perspective by depth

In addition to a career focus, the education you receive at CST is designed to last a lifetime as you gain perspective and depth through our Engineering curriculum.

The courses in this framework intentionally move you through a step by step educational phases designed to give you a strong foundation in communication skills, an introduction to fundamentals of engineering and sciences.

In addition, you'll have the opportunity to explore even further through undergraduate research, project work. On-the-job training and study abroad. We encourage you to explore all that CST has to offer.

Courses

SEE YOUR VISION THROUGH.

Bhutan's first ever engineering college, CST is a vibrant, connected community that is home to diverse, ambitious, and creative students from all over the country.

It offers five undergraduate engineering degree programs including an architecture program; a diverse, committed, and accessible faculty; sophisticated facilities; and an unusual emphasis on experiential learning

B. E. Civil Engineering

Bachelor of Engineering in Civil Engineering takes a minimum of four years full time.

The programme would provide access to larger numbers of suitably qualified nationals to be trained as engineers to meet the needs of Bhutan. The increased supply of engineers would also support private sector growth thereby creating additional jobs and strengthening the economy. The courses have been designed to meet the requirements of Bhutan's unique engineering demand. The graduates will find employment in Civil Service, Corporations and the Private sector.

The programme aims to be innovative in course and curriculum development in order to:

- Attract and recruit students of good academic ability and potential from all social groups.
- Develop the potential of each student to meet new challenges and to lay the foundation of versatility of thinking they will need in careers as professional engineers;
- Provide students with an engineering education with breadth across the engineering disciplines, combined with some specialist learning, delivered with design as an integrating feature;

- Understand the importance of professionalism, management, and problem solving techniques for works
- Allow career progression and educational development to study for a Masters degree.
- Ensure civil engineering students learn how to analyze and solve problems related to construction and maintenance of bridges, buildings, airports, waterways, and water and waste-water treatment facilities, hydraulic structures etc; they also learn how to communicate their solutions of these problems (their designs) to others and how to transform their designs into reality. Civil engineering is a challenging, creative and satisfying career.

  Students also have a unique opportunity to experience aspects of the civil engineering profession by making visits to sites.
- Ensure civil engineering graduates are able to:
- Formulate and prepare project proposals and plans.
- Design, analyze, prepare working drawings and estimates of various civil engineering structures.
- Execute/supervise the construction of various civil engineering structures.
- Carry out survey for civil engineering works.
- Carry out feasibility studies for civil engineering projects.
- Prepare bid documents, specifications of works and evaluate tenders.
- Adapt to new technologies/developments.
- Manage projects and other civil engineering related tasks

B. E. Electrical Engineering

The Bachelor of Engineering in Electrical Engineering takes a minimum of four years full time.

The programme provides access to larger numbers of suitably qualified nationals to be trained as engineers to meet the needs of Bhutan. The increased supply of engineers would also support private sector growth thereby creating additional jobs and strengthening the economy. The courses have been designed to meet the requirements of Bhutan's unique engineering demand. The graduates will find employment in Civil Service, Corporations and the Private sector.

- The Institute aims to be innovative in course and curriculum development in order to:
- Attract and recruit students of good academic ability and potential from all social groups
- Develop the potential of each student to meet new challenges and to lay the foundation of versatility of thinking they will need in careers as professional engineers

- Provide students with an engineering education with breadth across the engineering disciplines, combined with some specialized learning, delivered with design and problem solving as an integral feature
- Understand the importance of professionalism, management, and problem solving techniques for works
- Allow career progression and educational development to study for a Masters degree Electrical engineering is a challenging but exciting and rewarding area of study. It is a rapidly advancing field that is having a significant impact on shaping modern society. By studying electrical engineering students will be able to understand the significant developments in modern technology and be prepared to play a role in shaping its future.
- Ensure students also have a unique opportunity to experience aspects of the electrical engineering profession by making short visits to sites.

  The Undergraduate Degree programme in Electrical Engineering centers around analysis, design of components and system and transform the designs into reality.
- Ensure electrical engineering graduate are able to:
  - Plan and implement electrical power system, control system and communication system
  - formulate/prepare proposals and project plans
  - design and estimate electrical installation works/systems
  - execute/supervise the implementation of electrical works with quality control measures
  - use relevant software for electrical engineering works
  - conduct research studies to enhance professional development

B.E. Electronics and Communication

The Bachelor of Engineering in Electronics and Communication takes a minimum of four years full time.

The Electronics and Communication Engineering graduates are expected to be able to:

- Plan, analyze, design and develop application of devices and systems involving electronic components
- Plan, analyze, design, implement and manage communication system and network infrastructure with quality control measures and be environmentally conscious

- Identify, analyze, formulate and solve electronics and communication engineering problems
- Formulate/prepare proposals and project plans
- Critically evaluate information, create and critique logical arguments using quantitative reasoning
- Work in multi-disciplinary environment and communicate effectively
- Prepare for graduate works and research at least in the area of E&CE field of practice

B.E. Information Technology

The Bachelor of Engineering in Information and Technology takes a minimum of four years full time.

As Information Technology graduates, students are expected to be able to:

- Understand and demonstrate information technology applications
- Plan, design, develop, test, and implement IT systems
- Identify, analyze, and solve Information Technology problems
- Carry out operation and maintenance of network system: Software and Hardware.
- Formulate/Prepare proposals for new systems and project plans
- work in multi-disciplinary environment and communicate effectively
- Execute/Supervise the implementation of IT system
- Use relevant software and hardware for coding, code verification and testing
- Take up diverse profession and lifelong learning
- Conduct research studies in the field of IT

B. Architecture

Architecture is the physical representation of a society.

This programme is intended to study the role of traditional Bhutanese architecture and integrate it into the best present day curriculum practiced all over the world. This programme shall be made relevant to the site and scenario in the Bhutanese climate and context with study tours and project sites in the hilly regions. The Students will be encouraged solve the problem of designing in hilly regions using the concepts of Organic Architecture and green building concepts. The programme is expected to incorporate the rich Bhutanese arts, paintings and sculptures into the mainstream programme and is aimed to be dynamic and innovative in its course and curriculum refinement.

As architecture graduates, students are expected to be able to:

- Provide excellence in Architectural Education & the design of the built environment
- Preserve and promote Architecture as an important feature of Bhutanese identity
- Prepare the student for professional qualification of an Architect or for subsequent higher education.
- Develop skills in critical thinking, discussions, presentation and team work through seminar presentations, case studies, study tours, writings and studio activities

Courses in development

In order to meet the growing needs of the country in the field of engineering, the college will introduce the following new programmes in the next few years.

- Masters of Engineering in Renewable Energy
- Master of Engineering in Construction
- Bachelor of Engineering in Instrumentation and Automation

For course offer dates, please log on to our website cst.edu.bt for updates.