Purbanchal University Affiliated

BIT

Bachelor of Information Technology

Commitment to Excellence

www.kist.edu.np

KIST

KIST College of Information Technology

New Frontiers

KIST is a modern institution ready to meet the challenges of 21st century education. Its professional team of educators is committed to excellence in teaching-learning and academic performance. We have set new standards so that our students can change themselves and shape their future better. This is what we strive to do and what we want to be.

KIST COLLEGE

Introduction

Established in 1995, KIST – Kathmandu Institute of Science and Technology – has a 26-year-long history. KIST runs Bachelor's programmes (BBA, BIM, BBS, BSc Microbiology & BIT) and Master's programmes (MBS & MSc Microbiology) along with +2 in Science & Management.

An educational pioneer in Nepal, the College has been providing qualitative education. Our qualified and experienced faculty members are dedicated to the delivery of high-quality education. We have an academically competitive environment that brings out the best among students.

KIST offers many vital professional activities alongside wide-ranging co-curricular and extracurricular activities. The College has different clubs that support the interests & goals of its students. We also encourage KISTians to serve society through useful actions.

The College has its own buildings with sufficient amenities boosting academic effectiveness. These buildings are well engineered and safe. Our campus is spacious enough for sports and other purposes. We are most centrally located in a serene, green, and open spot next to the energizing waterscape of Kamalpokhari pond.

BIT

Bachelor of Information Technology (BIT) offers a whole new dimension in the development of Information Systems and the interactions between people and systems. The programme aims to train students to become fully-fledged professionals in the field of information technology. It focuses on deep understanding and skill building in software, hardware, networking, data structures, and computer architecture. Graduates become internationally acceptable professionals because of the strength and expertise they gain in information technology, the fastest growing sector of the modern economy.

Message from the
Coordinator

Dear Students,

Welcome to Bachelors in Information and Technology at KIST.

BIT empowers its students with IT skills that help moulding them into skillful IT professionals. We are dedicated to providing our graduates with top quality education emphasizing a practical approach to teaching-learning. Our proficient lecturers working in a disciplined yet friendly environment focus on both the regular updated course and extra courses. Extra projects and guest lectures keep our students updated with advancements in IT.

Students have abundant resources to help them study and explore their fields in IT. Trainings and workshops in every semester make students more productive and job ready by the end of 4 years. The college is a unique learning place for achieving academic excellence and assuring a promising future in IT sector.

Regards

Deepak Khadka
Coordinator, BIT

COURSE STRUCTURE

Semester I

Code	Subject	Credits
BIT101CO	Fundamentals of Information Technology	3
BIT102HS	Mathematics-I	3
BIT103HS	Technical Communication	3
BIT104HS	Society and Ethics in IT	3
BIT105CO	Computer programming in C	3
BIT106CO	Project-I	2

Semester II

Code	Subject	Credits
BIT151HS	Mathematics-II	3
BIT152CO	Digital Logic	3
BIT153HS	Discrete Structure	3
BIT154CO	Object –Oriented Programming in C++	3
BIT155MS	Financial Management and Accounting	3
BIT156CO	Project-II	2

Semester III

Code	Subject	Credits
BIT201HS	Numerical Methods	3
BIT202CO	Microcontroller	3
BIT203CO	Data Structure and Algorithm	3
BIT204CO	Computer Network and Data Communication	3
BIT205CO	System Analysis and Design	3
BIT206CO	Project-III	2

Semester IV

Code	Subject	Credits
BIT251HS	Probability and Statistics	3
BIT252CO	Computer Organization and Architecture	3
BIT253CO	Operating System	3
BIT254CO	Database Management System	3
BIT255CO	Programming in JAVA	3
BIT256CO	Project-IV	2

Semester V

Code	Subject	Credits
BIT301HS	Research Methodology	3
BIT302CO	Computer Graphics	3
BIT303CO	Cryptography and Network Security	3
BIT304CO	Web Technology	3
BIT305CO	Internet of Things	3
BIT306CO	Project-V	2

Semester VI

Code	Subject	Credits
BIT351CO	Artificial Intelligence	3
BIT352CO	Management Information System	3
BIT353CO	Data warehousing and Data Mining	3
BIT354CO	Simulation and Modeling	3
BIT355CO	Software Engineering	3
BIT356CO	Project-VI	2

Semester VII

Code	Subject	Credits
BIT401CO	Network Programming	3
BIT402CO	Digital Governance	3
BIT4**	Specialization 1	3
BIT4**	Specialization 2	3
BIT403CO	Internship	3

Semester VIII

Code	Subject	Credits
BIT451MS	Principles of Management and Entrepreneurship in IT	3
BIT452CO	Distributed and Cloud Computing	3
BIT4**	Specialization 3	3
BIT4**	Specialization 4	3
BIT453CO	Apprentice Project	3

Specialization 1 & 2

A.	**Intelligent Systems and Business Analytics** BIT421CO: Machine Learning BIT422CO: Business Intelligence and Data Science BIT423CO: Deep Learning
B.	**Digital Commerce and Mobile application Development"** BIT428CO: Digital Commerce BIT429CO: Multimedia and Application
C.	**Climate Change Management** BIT435CO: GIS BIT437CO: Remote Sensing BIT437CO: Data Center and Disaster Recovery Center

Specialization 3 & 4

A.	**A. Intelligent Systems and Business Analytics** BIT471CO: Natural LanguageProcessing BIT472MS: Supply Chain Analytics
B.	**Digital Commerce and Mobile application Development"** BIT478CO: Big Data BIT479CO: Mobile App development
C.	**Climate Change Management** BIT485CO: Incident Response and Management System BIT486CO: Climate Change Risk Management BIT487CO: Disaster Governance

TACKLING REAL-LIFE CHALLENGES OF SOCIETY THROUGH KNOWLEDGE & SKILLS IN INFORMATION TECHNOLOGY

Key Learning Outcomes

- Analyze, design and develop software or computer systems and design secure networks & monitor them to handle data and information worldwide

- Design and develop web, desktop or mobile based systems, build up websites, and create software applications to satisfy customer needs

- Gain specialization in configuration, integration, development, and testing of systems and networks to meet industrial needs

- Resolve system-related issues and troubleshoot communication and networking problems to ensure smooth operation

- Acquire skills and expertise in intelligent information retrieval systems to benefit decision-making bodies in an organization

Career Prospects

BIT instills highly sought-after skills in computer programming, database development, networking, website development, systems modeling and computer security. These are vital skills for gaining entry into organisations which demand confident and technically equipped computing graduates.

Graduates, focusing on specialist areas of their choice including web technology, network and communications, database or software development, will have many job opportunities in real-world projects in the thriving world of IT. Further, with the added knowledge of multiple subjects in IT that this academic qualification provides, students earning the degree can have rewarding careers.

The demand for IT professionals is continually on the rise in every sector with many new jobs being created every year. So well-qualified graduates can find openings in Nepal or abroad easily or even can start their own ventures.

Careers by Area

- **Information System Management** – Information and system managers in various private and governmental organizations in Nepal

- **Software Engineering –** Software engineers capable of making ultra-modern CASE tools for monitoring and implementing different aspects of software development

- **Networking –** Network managers for deploying and maintaining large secure networks

- **Artificial Intelligence –** Specialists of complex intelligent algorithms used in computer based systems

- **Software Development –** Software engineers for overseeing overall software production processes using high-end development technology

- **Web and Internet Programming –** Web developers for developing intelligent software systems using PHP, JAVA, and ASP.net

- **Network and Cyber Security –** Network administrators looking after the overall security of the networks of private or public organizations, banks, NGOs or INGOs

- **Database Designing –** Database designers for implementing database solutions for assorted organizations

Cutting-Edge Facilities
Benefitting from Resources

Library
There's a large updated collection of internationally standardized textbooks, reference or general reading books, and e-gadgetry/e-library.

Canteen
At KIST, the food and beverage including free drinking water. Quality is checked carefully for safeguarding student and employee health.

ICT Centre
We have a totally digitally networked working environment with continuous Internet connectivity alongside state-of-the-art computer labs.

Extracurricular Activities
ECAs, a vibrant side of campus life, make KIST students fit in body, mind, and spirit to take on the challeng es of modern life.

Social Service
KIST motivates its youngsters to serve society in as many ways as they possibly can such as blood donation, sanitation, or natural calamity relief.

Games & Sports
Basketball, futsal, badminton, cricket & table tennis regale KISTians while competitions or friendly matches inspire players to perform better.

Clubs
Stimulating clubs cater to areas of interest like management, or art & literature and simultaneously provide a full college experience to students.

Co-Curricular Activities
They enrich students' lives by developing their personalities and academic profiles through productive engagement.

Premises
Spacious premises for both indoor and outdoor activities and a peaceful environment provide just the right environment for academic work.

Positive Discipline
Our Code of Conduct instills positive discipline in our students building up a keen sense of task completion and time management.

High-Quality Education
Pursuing Academic Excellence

Excellent Faculty
Our dedicated, experienced faculty delivers excellent teaching-learning, supervises academic performance, and guides accordingly.

Effective Methodology
We integrate technology and multiple learning to help students understand and remember better as they acquire critical thinking skills.

Systematic Assignments
Students are given regular homework and vacation assignments co-related to methodical class work for thorough course coverage.

Close Monitoring
Teachers watchfully monitor academic progress and tutors impart both group and personalized instruction of the highest quality.

Continuous Assessment
Academic life here is power-driven by regular class, Term, and Pre-Board tests and examinations enhancing competitive success.

Ample Practicals
The College arranges sufficient practicals under expert supervision to meet syllabi standards and students' hands-on learning needs.

E-Learning
This is truly a twenty-first century college in that it emphasizes online classes and e-technology for keeping its students fully updated.

Regularity & Punctuality
We insist upon regularity of student presence and output while full attendance, a common KIST feature, is suitable rewarded.

Get Scholarships

Supporting Your Education

Scholarships

KIST Scholarships are awarded to exceptional students in order to recognize and promote academic excellence. There are many Scholarships for commendable students who satisfy expected norms.

University Scholarships

The College provides scholarships to deserving students according to guidelines of Purbanchal University.

Based on +2 Grades & Entrance Marks

KIST awards Scholarships to students who get high GPAs/marks in Previous Board Exams & Entrance Exams. These Scholarships are allotted in order of mark-based merit per seat availability by given deadlines.

Performance-Based Scholarships

Students who get the top positions in the Board Exams and Term Exams are rewarded with Scholarships. These Scholarships are allotted in order of mark-based merit per seat availability according to scholarships guidelines.

Note: In case a student is eligible to get two, or more, scholarships, he or she shall be allotted only one scholarship whichever is of greater, or the greatest, value.

Join Us

Admissions

Students seeking admission in BIT program:

Eligibility

1.1   Should have successfully completed twelve years of schooling in any stream with at least a mathematics subject of 100 marks in 10+2 level examination.

1.2   Must have a minimum C grade in each subject of grade 11 and 12 with CGPA 2.0 or more. In case a student has taken the additional mathematics subject in grade 12, the student must have passed in the additional mathematics paper with at least D+ grade.

or

Must have secured a minimum score of second division (45%) marks in 10+2, PCL or equivalent in any discipline.

Entrance Exam Application Form

University Entrance Exam Application forms are available at all colleges including KIST which offer BIT Program. Applicants should submit these forms duly filled in with supporting documents and photographs by the given deadline.

Entrance Exam

Getting through the University Entrance Exam is mandatory for admission in BIT.

KIST Admission Form

Successful students in the University Entrance Exam should fill in the KIST Admission Form. Students who have filled in the University Entrance Exam forms in any other college are also eligible to apply here.

Personal Interview

These students need to appear for the Personal Interview thereafter. They ought to be accompanied by their parents or guardians for this interview.

Offer Letter

Selected applicants are handed Offer Letters for admission. They need to submit their acceptance along with needed original certificates or testimonials within the stipulated period to get admitted.

Enrolment

Once the College receives a letter of acceptance, it will confirm admission forthwith subject to the payment of fees.

KIST provides pathways to build careers . . . Its support is the best possible since it's accompanied with much knowledge and varied opportunities. Its extraordinary people foster healthy competition, and its open-mindedness encourages students to grow into what they want to be.

Sarwesh Maharjan
BIT 7th Semester

Do you want to focus on skills not just grades or marks? If you like to solve real-world problems through awesome projects, then KIST's perfect for you. They offer pragmatic options within the course, and teach different, exciting programming languages.
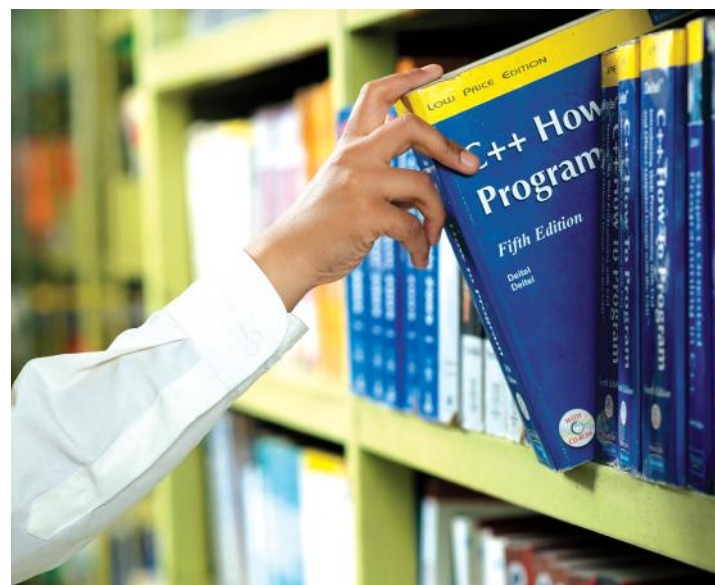
Roshan Shrestha
BIT 8th Semester

KIST emphasize to train students to become qualified professionals in the field of IT. KIST has experienced and responsive teacher who help students to acquire knowledge and encourage to explore. Teacher are always prepared to clear our doubts.

Anu Prajapati
BIT 3rd Semester

With the homely teaching environment and in addition, KIST provides extra training which will harness our skill which makes us job ready for industry. Likewise, frequent extra activities and practical work are plus point which will make your learning at this institute a fruitful one.

Yubraj Singh
BIT 7th Semester

Enrichment Activities

Project- ASP.Net Programming – BIT 4th Semester- *May 3, 2021*

Project- Java Programming – BIT 6th Semester- *May 5, 2021*

Guest Lecture – Career Guidance and Counselling Session- BIT 1st Semester-*June 4, 2021*

Workshop – Photoshop - BIT 3rd Semester- *June 6, 2021*

Guest Lecture – Front End Development Career in Nepal - BIT 5th and 7th Semester- *June 9, 2021*

Guest Lecture – Getting Started with JavaScript- BIT 7th Semester- *June 11, 2021*

Training – Database Training: SQL - BIT 3rd Semester- *June 20, 2021*

Training – Basic Computer Skills (MS-Word, MS-Excel, MS-Paint) - BIT 1st Semester- *June 23, 2021*

Training – Front End Development - BIT 5th Semester- *June 27, 2021*

Project – C#- BIT 3rd Semester- *July 26, 2021*

Project – Flutter and NestJS- BIT 7th Semester- *September 7, 2021*

Project – Laravel-BIT 5th Semester- *September 21, 2021*

Training – GIT- BIT 1st Semester- *September 23, 2021*

Project- C++ Programming – BIT 2nd Semester- *December 20, 2020*

Guest lecture – Importance of Database and How to establish yourself in Database professionally? – BIT 1st, 3rd & 5th Semester – *September 13, 2020*

Guest Lecture – Mental Health Stability during Lockdown– BIT 1st, 3rd, 5th & 7th– *September 10, 2020*

Workshop – GIT HUB Session – BIT 1st Semester – *September 9, 2020*

Guest Lecture – Trends on Web and Mobile Design – BIT 3rd, 5th & 7th Semester – *September 3, 2020*

Training – WordPress Training – BIT 5th & 7th Semester – *August 25, 2020*

Project – LARAVEL Training Session – BIT 5th Semester – *February 16, 2020*

Interaction Program – F1 Soft Limited in aspect of opportunities for IT students –*February 14, 2020*

Project – C# Project – BIT 3rd Semester – *January 24, 2020*

Workshop – LARAVEL & ADVANCED GIT – BIT 5th Semester – *January 19, 2020*

Training – Web Designing Training – BIT 5th Semester – *December 30, 2019*

Project – Spring Java & Angular JS Project Session – BIT 7th Semester – *December 13, 2019*

Project – ASP.NET– BIT 5th Semester – *December 13, 2019*

Training – Personality Development and Soft Skills Training – BIT 1st Semester– *December 9, 2019*

Training – GIT – BIT 3rd Semester – *December 4, 2019*

Training – Ethernet Cabling and Clamping – BIT 5th Semester – *December 4, 2019*

Workshop – Basic Linux – BIT 5th Semester – *January 2, 2019*

Training – Basic Photoshop – BIT 3rd Semester – *January 27 - 31, 2019*

Educational Tour – Darjeeling & Sikkim – BIT 5th Semester – *January 12 - 19, 2019*

Training – SEO and Digital Marketing (40 hours) – BIT 5th & 7th Semester – *January 22, 2019*

Internship Examination – Leap Frog Inc – BIT 8th Semester – *June 4, 2019*

Linux Training – First Module – BIT 6th Semester – *June 16 - July 5, 2019*

Java Project – BIT 6th Semester – *November, 27 – December 12, 2018*

C++ Project – BIT 2nd Semester – *November, 30 – December 14, 2018*

Final Year Project – BIT 8th Semester – *December 4 - 23, 2018*

Asp. Net Project – BIT 4th Semester – *December 6 - 25, 2018*

Spring Boot and Angular JS project (60 hours) – BIT 7th Semester – *December 18, 2018*

GIT Training Session – BIT 3rd Semester – *December 26 - 31, 2018*

IT Meet – Kathmandu University – BIT faculty – *December 28 & 30, 2018*

Project - Spring Framework - P J B Rana- BIT 8th Semester - *November 5, 2017- January 4, 2018*

Project - Spring Framework- N Regmi - BIT 7th Semester - *November 1, 2017 - January 3, 2018*

Training - Web Designing - Photoshop and Bootstrap - M Shrestha - BIT 5th Semester - *December 24, 2017*

Field visit & Project Competition – KU IT Meet – *January 6, 2018*

Presentation – Free open source software- B Shrestha (Libre Soft Pvt. Ltd) – BIT 1st, 3rd & 5th Semesters - *January 9, 2018*

Project – PHP – S Giri- BIT 5th Semester - *January 9-29, 2018*

Project – C# – A Upadhyay - BIT 3rd Semester - *February 1-18, 2018*

Guest Lecture – Introduction to Embedded World – S Maharjan, Firmware Engineer-BIT 3rd & 5th Semesters - *February 6, 2018*

Workshop – Python- IIT Nepal- BIT 3rd Semester - *March 7, 2018*

Career Counseling – Fields of IT - BIT 1st & 3rd Semesters - *March 11, 2018*

Project - C Programming– D Khadka - BIT 1st Semester- *April 5-20, 2018*

Project – Asp. Net –N Marasaini - BIT 4th Semester - *July 17, 2018*

Project – C++ – S Khanal– BIT 2nd Semester – *December 18, 2016 - January 1, 2017*

Training and Project – ASP.Net with Database – A Upadhaya – BIT 4th Semester – *December 20, 2016 - January 18, 2017*

Mentoring – Entrepreneurship in IT – National Incubation Research Center – BIT 5th & 6th Semesters – *January 8, 2017*

Field Visit – IT Meet up, Dhulikhel, KU – BIT students – *January 21, 2017*

Interaction –Talk Show –BIT 1st & 7th Semesters – *January 24, 2017*

Project – MSP Summit – C Neupane – BIT 5th Semester – *July 4-5, 2017*

Participation – Luniva Code Jatra, HEC – BIT 6th Semester – *July 15-16, 2017*

Workshop – Basic Networking – BIT 6th Semester – *August 6, 2017*

GIT Training – S Giri- BIT 2nd Semester – *September 12, 2017*

Training – Ethical Hacking – NCIT – BIT 5th & 7th Semesters- *September19, 2017*

Guest Lecture – IT in Nepal & E-governance – Prof Dr S Shakya – BIT 1st Semester – *January 11, 2016*	**Counseling** – Motivation for success – A Pradhan – BIT 1st Semester – *December 12, 2016*
Training – Microsoft Word & Excel Training – J Adhikari – BIT 1st Semester – *January 21- 22, 2016*	**Project** – PHP Programming – S Mohammad – BIT 5th Semester – *June 21- July 5, 2015*
Project – Java, Custom Code Programming – A Upadhaya – BIT 6th Semester – *January 21 - February 5, 2016.*	**Project** – C Programming – Er B K Gupta – BIT 1st Semester – *June 21- July 5, 2015*
Project – Database, SQL training – A Upadhaya – BIT 4th Semester – *May 18 - June 3, 2016*	**Project** – C++ Programming – Er B K Gupta – BIT 2nd Semester – *June 28-July 12, 2015*
Project – Java, Spring Framework Programming – P J Rana – BIT 7th Semester – *June 20, 2016*	**Guest Lecture** – Careers in IT – Er S Shakya – BIT 8th Semester – *July 19, 2015*
Guest Lecture – Networking and its Scope – JetKing Inc – BIT 3rd Semester – *August 14, 2016*	**Project** – HTML & CSS Programming – Er B K Gupta – BIT 4th Semester – *July 26- August 12, 2015*
Demonstration – Holo Lens Demonstration – Microsoft Innovation Center Nepal – BIT 5th Semester – *September 7, 2016*	**Interaction Program** – Market of IT – Leapfrog Technology – BIT 4th Semester – *July 30, 2015*
	Field Visit – NTC Communication Tower – Er M S Dahal – BIT 8th Semester – *August 15, 2015*
Workshop & Training – Entrepreneurship and team work – We are youth – BIT Students – *November 9, 2016*	**Workshop & Training** – Android Technology – A Shrestha – BIT 7th Semester – *August 20- 27, 2015*
Project – PHP – S Mohammad – BIT 5th Semester – *November 9 - 25, 2016*	**Workshop & Training** – Wordpress Framework, PHP – B Khati – BIT 7th Semester – *September 10- 11, 2015*
Project – JAVA – Er S B Bist – BIT 6th Semester – *November 13 - 27, 2016*	**Project** – C++ Programming – Er S Khanal – BIT 3rd Semester – *November 29 - December 15, 2015*
Project – JAVA plus Android – P J B Rana – BIT 8th Semester – *November 13 - 27, 2016*	**Project – Asp.net Programming** – A Upadhaya – BIT 8th Semester – *November 22- December 13, 2015*

KIST

KIST College of Information Technology

www.kist.edu.np

PO Box 20828, Kamalpokhari, Kathmandu, Nepal

Tel: 4534990, 4534178, Email: info@kist.edu.np