

Expand Career Prospects

Internationally Recognized

Master's Degrees in IT & Computer

ME CE Master of Computer Engineering

MSc CS Master of Computer Science

MCIS Master of Computer Information System

2-year 4-semester program | Affiliated to Pokhara University



NCIT

Nepal College of Information Technology
(Affiliated to Pokhara University)

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NCIT

Nepal College of Information Technology, established in 2001, is a prominent engineering institution in Kathmandu valley. The College runs Pokhara University-affiliated Master's programs – Master of Computer Engineering (ME CE), Master of Computer Science (MSc CS), & Master of Computer Information System (MCIS). The College also offers Bachelor's programs – BE (Civil, Electronics & Communication, Computer, Information Technology and Software Engineering) and BBA. Our Engineering Degrees are approved by the Nepal Engineering Council.

NCIT is a pioneer private institution in providing engineering education in Nepal. The College has produced over a thousand high-caliber engineers and IT professionals who have been playing key roles in their professions.

The College is an authorized training partner of CISCO, Red Hat, and Microsoft. It provides related-training and conducts preparatory examinations leading to internationally recognized certifications from these renowned institutions. Students further consolidate their knowledge and research capability through supplementary inputs like professional training, seminars, conferences and project work.

We are committed to providing quality education in various engineering disciplines keeping in mind emerging professional needs. Our highly qualified and experienced faculty is fully dedicated to their teaching. We have a state-of-the-art infrastructure to foster academic excellence. Our institution provides vital non-credit inputs, supplementing the regular courses to meet the diverse learning needs of its students and improve their employability.

NCIT envisions a role for itself beyond academic boundaries. It takes the aspirations and future success of its students as a pathway to nation building.

Internationally Recognized Master's Degrees in IT & Computer

NCIT has been offering various Master's level study opportunities to students since 2001 so as to produce a workforce that could make a valuable contribution to various IT sectors of the country and that could produce competent manpower capable of training other competent graduates. Up to now, NCIT has shaped hundreds of graduates who are fully capable to take on professional responsibilities in governmental and non-governmental institutions as well as reputed private companies. NCIT started offering the following 2-year 4-semester Master's Degrees in IT & Computer:

- **MSc CS** Master of Computer Science
(Since 2001)
- **ME CE** Master of Computer Engineering
(Since 2005)
- **MCIS** Master of Computer Information System
(Since 2005)

The Master's programs of NCIT have been able to create a distinct impact on Nepalese society, particularly on computer professionals and the leaders or managers of the industrial sector. The courses have been designed to enhance the academic foundations of students, and instill a high level of competence and confidence in them for the production of high caliber manpower and research scholars who can cater to the needs of the industrial sector.

www.ncit.edu.np



NEPAL COLLEGE

Programs Offered

ME CE

Master of Computer Engineering

The **ME CE Master of Computer Engineering** course is designed to serve the needs of engineers of the country who wish to acquire higher education in the field of computer engineering. In particular, the degree builds up responsible high-caliber professionals who can handle existing or new engineering tasks. It also aims to expose students to the cutting-edge developments in computing technology and contemporary research in order to meet the national and regional research and development needs of the industry.

Key Learning Outcomes

- Gain knowledge and expertise of modern techniques for the designing and engineering of computers including hardware and software designs
- Enable students to utilize their skills and creativity for innovative solutions to engineering problems, to do research, and to handle new technical challenges in computer engineering fields
- Keep students abreast of emerging technologies, acquire new skills, and interact with professional communities in their ever-developing careers
- Gain scientific insight and practical skills relating to the configuration, deployment, maintenance, and security aspects of Information systems

Career Prospects

Graduates of ME CE have broad professional employment opportunities incorporating design and management responsibilities. The degree also allows them to enhance their careers through the knowledge and expertise that they acquire and to assume leadership roles in their chosen fields.

They can get top placements in industries, do academic research, and participate in R&D in domestic or international markets dealing with software development, information technology, telecommunications & the Internet, e-commerce, data processing, and intelligent computing.

Some specialized domains

Telecommunication: Senior communication engineers with a comprehensive understanding of the modern technologies deployed in today's mobile communication systems

Software Development: Senior Software managers for effectively supervising large-scale software development activity

Computer Hardware Engineering: Computer hardware engineers for coming up with practical solutions for the designing and testing of computer systems

Intelligent Computing: Experts of related computer-based systems based on complex algorithms for extracting meaningful information necessary for decision-making

Networking & IT Management: Senior Network/IT Managers in the government, private sector, INGOs, and NGOs for establishing, maintaining, and monitoring secure networks and information

Database Engineering: Database engineers for designing and implementing large-scale corporate-level data repositories for efficient access to and retrieval of information

Research Works: Result-oriented researchers in demanding fields like Machine Learning, Knowledge Mining, NLP, Pattern Recognition, Cloud Computing, Big Data Analytics, Semantic Web Technologies, and Telecommunication



Course Structure

Semester I (15 Credits)

Code	Course Description
MTH 611.3	Discrete Structure
COM 609.3	Advanced Problem Solving Technique
COM 615.3	Object Oriented Software Engineering
MTH 612.3	Algorithmic Mathematics
COM 602.3	Digital System Design

Semester II (15 Credits)

Code	Course Description
COM 603.3	Theory of Computation
COM 608.3	Advanced Computer Architecture
COM 605.3	Distributed Operating System
COM 714.3	Computer Graphics
COM 613.3	Mobile and Wireless Communication

Semester III (15 Credits)

Code	Course Description
COM 730.3	Distributed Database System
COM 706.3	Image Processing and Pattern Recognition
COM 713.3	Artificial Intelligence
COM 732.3	Network Security
	Elective-I

Semester IV (15 Credits)

Code	Course Description
COM 733.3	Multimedia Computing
	Elective-II
COM 722.9	Thesis/Dissertation

Total Credit Hours: 60

MSc CS

Master of Computer Science

The **MSc CS Master of Computer Science** at NCIT is a research-intensive program, designed to provide comprehensive knowledge and theoretical understanding of the Computer Science discipline. It prepares graduates to create computing solutions and to apply them to different areas that they come across in their professional areas.

Key Learning Outcomes

- Participate in and manage work related to the evaluation, development, and implementation of emerging technologies in the field of ICT
- Build robust software applications that aid technical development
- Acquire skills and knowledge pertaining to Intelligent computing for coming up with ideas about efficient algorithms to solve complex computational problems in different emerging and challenging domains like the Semantic Web, Cloud Computing, Artificial Intelligence, Knowledge Mining, and Engineering
- Gain the needed scientific perspective and technical skills relating to the configuration, deployment, maintenance, and security aspects of computers, networks, and the Internet

Career Prospects

The MSc CS Master of Computer Science degree opens up many exciting career routes in the field of IT as systems managers, information analysts, network managers, software engineers, and project managers. This degree builds up confidence and capability in students for starting their own ventures. It opens up doors to students leading to PhD studies and to conduct cutting-edge research in the areas of their interest.

Some specialized domains

Image Processing: Experts in implementing and manipulating both existing and conceived algorithms for building applications related to Image Processing and Pattern recognition

Software Engineering: Senior Software engineers capable of making use of Ultra-modern CASE tools for monitoring and implementing multifarious aspects of Software Development

Artificial Intelligence: Specialists of complex intelligent algorithms used in computer-based systems that mimic human behavior, learning, and reasoning abilities

Data and Web Mining: Experts for extracting meaningful information from large data sets for providing valuable input in decision-making

Network Administration: Senior Network Managers for deploying and maintaining secure networks

Database Engineering: Database engineers for envisioning and implementing large-scale enterprise Database solutions from both the Centralized and Distributed perspective

Research Work: Competent research workers in challenging domains like machine intelligence, business intelligence, and knowledge mining



Course Structure

Semester I (15 Credits)

Code	Course Description
MTH 611.3	Discrete Structure
COM 609.3	Advanced Problem Solving Technique
COM 615.3	Object Oriented Software Engineering
MTH 612.3	Algorithmic Mathematics
COM 601.3	Digital Logic and Computer Organization

Semester II (15 Credits)

Code	Course Description
COM 603.3	Theory of Computation
COM 608.3	Advanced Computer Architecture
COM 605.3	Distributed Operating System
COM 714.3	Computer Graphics
COM 712.3	Data Communication and Computer Networks

Semester III (15 Credits)

Code	Course Description
COM 730.3	Distributed Database System
COM 724.3	Principles of Programming Language
COM 713.3	Artificial Intelligence
COM 704.3	Real-Time Systems
	Elective-I

Semester IV (15 Credits)

Code	Course Description
COM 731.3	Data Warehousing and Data Mining
	Elective-II
COM 722.9	Thesis/Dissertation

Total Credit Hours: 60

MCIS

Master of Computer Information System

MCIS Master of Computer Information System is a unique degree that fuses technical knowledge in information systems with the knowledge of managerial and organizational principles. The degree transforms students into an exceptional blend of information system experts and excellent managers. They become fully competent to find comprehensive IT solutions applicable in the widest contexts and to manage Information Systems most efficiently.

Rapidly growing interest in computing and the widespread application of computers has attracted individuals to undertake computer education. Moreover, the introduction of new courses such as BCIS/BIT/BIM/BCA has encouraged educational institutions to design courses that would help students from these streams to pursue higher education in computer and information systems.

Key Learning Outcomes

- Gain theoretical and practical understanding of the storage and manipulation of data and information in and across organizations
- Acquire leadership capabilities essential for the development of large-scale information systems
- Use efficient information systems to enhance business processes and decision-making processes associated with large IT projects, related environments, and associated businesses
- Design, develop, and maintain Intelligent Systems through the acquisition of contemporary knowledge pertaining to recent technological advancements

Career Prospects

Graduates of the MCIS program get a warm welcome from modern IT-driven society where knowledge acquisition for effective decision-making through automation plays a key role.

MCIS largely builds up the graduates' knowledge of the application of information and communications technology in business environments vital for improving the overall efficiency of their organizations.

MCIS graduates can pursue their career in diversified domains as Database Managers, Software Architects or Engineers, Network Specialists, and Information Experts

Some specialized domains

Information System Management: Information System Managers in various governmental & private institutions and NGOs & INGOs for developing and maintaining large-scale Information Systems

Knowledge Engineering: Information System Experts or Officers for providing crucial input to top-level decision-making bodies through knowledge mining in large-scale business organizations

Web and Internet Programming: Web engineers for envisioning and developing intelligent software systems using sophisticated CASE tools and technologies like the Semantic Web or Data Mining

Software Development: Senior Software engineers for overseeing the overall software production process using high-end development technology

Network Administration: Senior Network Managers for deploying and maintaining large secure networks

Database Designing: Database designers for envisioning and implementing large-scale database solutions from both the Centralized and Distributed perspective

Course Structure

Semester I (15 Credits)

Code	Course Description
MTH 611.3	Discrete Structure
COM	Ethical and Professional Issues in IT
COM 733.3	Software Project Management
COM 720.3	Distributed Database Systems Elective-I

Semester II (15 Credits)

Code	Course Description
MNG 605.3	Organization Behavior and Human Resource Management
MNG	Operation Research
COM 734.3	Visual Programming Elective-II
CMP 722.3	Project Work

Semester III (15 Credits)

Code	Course Description
COM 734.3	Image Processing
COM 713.3	Artificial Intelligence
COM 704.3	Real Time System Directed Studies Elective-III

Semester IV (15 Credits)

Code	Course Description
COM 735.3	Data Mining and Data Warehousing Seminar & Presentations
COM 722.9	Thesis

Total Credit Hours: 60

List of Electives

The following electives are offered to the Master's students and are common to all faculties ME CE, MSc CS, and MCIS

- Cloud Computing
- Next Generation Networks (NGN)
- Geographical Information System
- Advanced IP Switching and Routing for Enterprise Networks
- Compiler Design
- Embedded Systems
- Internet Programming
- Analysis and Design of Algorithms

The list is not exhaustive since it depends upon recent emerging trends or new elective courses that are offered after getting approval from the Pokhara University Subject Committee.

Key Information

Evaluation & Grading

Pokhara University has adopted an internationally recognized evaluation and grading system. Students' performance is evaluated internally by the concerned subject teachers and by the concerned college and externally by the Office of the Controller of Examinations through semester-end examinations.

Students must pass internal examinations to be able to appear in the final examination. Each student's performance in a subject is evaluated by the concerned faculty member taking into consideration attendance, tutorials, lab work, assignments, and paper presentations and by the concerned college through mid-term evaluation.

Pokhara University follows a four-point letter grade system: To be awarded a degree, a student must secure a minimum CGPA of 3.0 for Master's programs.

Academic Schedule

The academic year of Pokhara University consists of two semesters of 16 weeks each. Every year, the Fall semester starts in September and the Spring semester in March. Fresh admissions are normally made at the beginning of the Fall Semester or Spring Semester in the case of Master's Programs.

Attendance Requirements

Students must maintain a minimum of 80% attendance in the classes actually held; defaulters are not allowed to sit for the final examination.

Duration

The normal duration for completion of the course is two years and the maximum duration for the same is four years.

Timing

Considering the needs of working students, a convenient timing schedule has been set for these programs. All Master's Programs run from 5:30PM – 9:00PM. During winter (Mangsir, Poush and Magh), classes run from 4:30PM – 8:00PM.

Institutional Scholarships

NCIT provides institutional scholarships to support working individuals wanting to pursue graduate level studies. Institutions and organizations sending their employees to NCIT for pursuing MSc Computer Science and Master in Computer Information System need to sign an MoU with NCIT for their applicants to be eligible for such scholarships.

Admission Process

Students interested in joining Master Programs at NCIT would need to go through a fair but thorough admission process.

The NCIT admission process usually starts from the months of August for the Fall semester and from February for the Spring semester.

Eligibility

MECE Master of Computer Engineering
BE (all branches) with minimum 2.0 CGPA/Second Division

MScCS Master of Computer Science
BSc in Computer Science/Physics/Mathematics/Statistics or BE (all branches) or equivalent with minimum 2.0 CGPA/Second Division

MCIS Master of Computer Information System
BIT/BCA/BCIS/BIM or BE (all branches) or equivalent with minimum 2.0 CGPA/Second Division

Application Form

NCIT Entrance Exam Application forms are available for Master's Degrees. Applicants should submit these forms duly filled in with supporting documents and photographs by the given deadline.

Entrance Exam

Getting through the Exam is mandatory for these programs since the objective of the PU admission policy is to select students on a competitive basis. Questions asked are from related subject areas. Sample Test Papers can be obtained from NCIT along with Application forms.

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.

Enrollment

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

Benefits of Doing Master's at NCIT

Conferences

NCIT organizes National and International conferences regularly. These provide a common platform for Master's students to share their views, ideas, and innovative projects with other IT scholars and researchers. The College has been drawing support from University Grant Commission (UGC), Nepal Telecom Authority (NTA), IOE, and NITC.

Research, Training & Consultancy

NCIT has a Research Training and Consultancy Unit (RTCU). This Unit encourages students to conduct research work on an individual basis and work on projects pertaining to hardware and software in a team. The RTCU of NCIT conducts the following training/courses on cost sharing basis: Cisco Certified Network Associate (CCNA), Redhat Certified Engineering (RHCE) & Operating System Design.

Industrial Tie-ups

Tie-ups with top industries and IT-related business houses help curriculum development, collaborative research, and skills transfer to our faculty, staff, and, importantly, students. NCIT has signed an MoU with NTA for promoting and encouraging the students of NCIT in doing project and research work. NTA provides financial support to the students of NCIT by providing a funding of NRs 100,000/- annually since 2011 for research work.

Online Resources

NCIT has been hosting the Master's thesis for its students online to assist them in doing research and thesis work using Greenstone Digital Library. It also provides access to various International journals/conference proceedings like AACC journal & proceedings, IEEE journal, Cambridge Journals, EUP Journals, and University of Chicago Journals. In 2014, NCIT came up with its own annual "Journal of Science and Technology".

Paper Publications

NCIT always encourages its students and faculty members to take part in research activities and have their works published. Accordingly, the College sponsors and provides financial support to its student and faculty members to publish their papers in various international conferences.

Corporate Interaction

Eminent professionals give lectures and presentations on diverse and useful topics. To further interaction, students are invited by the organizations to conduct their thesis and research work with them.

NCIT

Authorized Training Partner

NCIT is an authorized training partner of world-renowned training institutes like CISCO system, Redhat Inc., and Microsoft Innovation Center that offer all-inclusive professional training.



Conferences at a Glance

AH-ICI

NCIT has been organizing the Asian Himalayan International Conference on the Internet since 2009. This conference is fully endorsed by the IEEE and is organized in joint collaboration with Computer IEEE Chapter of Azerbaijan and Madhya Pradesh IEEE Sub-Section and Bombay Section, India. The first AH-ICI 2009 was held 3-5 November, 2009, at Hotel Hyatt. The second AH-ICI 2011 was organized 4-6 November, 2011, at Hotel Soaltee Crown Plaza and the third AH-ICI 2012 was organized 23-25 November, 2012, at Institute of Engineering, Pulchowk Campus.

AACC

In association with the Ministry of Science and Technology, Nepal Engineering College, and Kathmandu Engineering College, NCIT organized the Fourth Asian Applied Computing Conference on 13-15 December, 2007.

National Students' Conference on Information Technology (NaSCoIT)

Considering the growing interest towards IT in the country, NCIT has been organizing the National Students' Conference on Information Technology (NaSCoIT) since 2003. The Conference aims at providing a common platform to IT aspirants for sharing their views and ideas with the rest of the world. The Seventh NaSCoIT conference was held in September 2013 and the theme of the conference was "ICT for Globalization".

Faculty Members

NCIT has accomplished, well-known, and experienced faculty members from both the academic and industrial sectors to ensure a rich delivery of knowledge and expertise to students. The College also invites various visiting faculty members from abroad for the Master's programs. It also engages the researchers who come for International Conferences that NCIT hosts to share their ideas and knowledge with its undergraduate and graduate students.

Prof Dr. Shashidhar Ram Joshi
Niranjan Khakurel
Dr. Aman Shakya
Dr. Basanta Joshi
Dr. Sanjib Panday
Dr. Satish Ojha
Dr. Sudan Jha
Deepak Dhami
Dilendra Bhatt
Kumar Pudashini
Prakshet Thapa
Purna P Sharma
Roshan Kumar Sah
Sanjay P Kushwaha
Saroj Shakya
Suresh Pokharel
Uttam Pokharel

Visiting Professors

Prof. Dr. Abhaya Kumar Samal, India
Prof. Dr. Shrinivas Prasad, India
Prof. Dr. Sunil Dhal, India
Prof. Nicholas McGuire, Austria
Prof. Dr. Herman Hertic, Germany
Prof. Dr. A. K. Das, India
Mr. William Heath, California, USA
Prof. Sanjit Setua, India

Students' Voices



A Two-Pronged Approach to Education

The education paradigm of this College is a two-pronged approach to education involving both the faculty with real-world experience and students with varied backgrounds or professional engagements. This nurtures willingness to learn and to master job skills. NCIT gave me great friends and excellent academic quality. These are things that will definitely remain with me throughout my life. . . My experiences at NCIT are a personal and professional treasure trove.

Krishna Pandey

ME Computer Engineering

Professional Engagement

- IT Consultant, Government of Nepal
- IT Expert, CSC (P) Ltd, Nepal Chapter for PriceWaterHouseCoopers (PWC) responsible for executing ADB funded ICT projects for Government of Nepal.

Outstanding Master's Programs

NCIT Master's programs are outstanding! This is particularly true for the Master of Computer Information System (MCIS). Truly, it was from NCIT that I received all the education I really needed to succeed in my profession. Of special importance is its congenial environment with small, customized classes that make it easier to learn than at any other institution. The Professors are willing to go the extra mile to make sure each student understands the material presented. Further, there are many rare opportunities at NCIT such as producing research papers and journal articles or participating in International Symposiums. In all, the program gave me the knowledge I required and it also taught me how to advance my career.

Praveen Koirala
MCIS

Professional Engagement
MIS Officer, UNDP



The Door to Great Opportunity

In 2003, I joined NCIT for my undergraduate study and became a successful IT professional because of its healthy environment with an expert faculty, helpful staff, and more than adequate resources. NCIT is one of the pioneer advanced-learning centers for undergraduate & (post)graduate studies. My past experiences as an undergrad and the fine advice of my senior colleagues encouraged me to rejoin NCIT for my (post)graduate – Master's – study. This really proved to be a great opportunity for me; the degree was a platform for excellent advanced studies greatly advancing my career. Today, I help in the management of national and international level tasks!

MD. Raheem Ansari
ME Computer Engineering

Professional Engagement
Office of the Prime Minister and Council of Ministers
Public Procurement Monitoring Office



NCIT - a Fine Investment!

Education is an assured investment in one's career: After completing seven years as an IT professional in the governmental sector, I joined ME (Computer Engineering) at NCIT. This course is helping me to reshape my knowledge and update it in a comprehensive manner. Talks on several emerging technologies organized by the College help us to become familiar with new important technologies. The regularity of classes at the College and its fine learning environment have impressed me a lot. Interaction with my classmates who are also practitioners in the IT industry, is giving me deep insight of the Nepalese IT industry. Above all, I am fully enjoying my studies at NCIT.

Subhash Dhakal
ME Computer Engineering

Professional Engagement
Director, E-Governance, Ministry of Science and Technology



A Wise Decision . . .

Joining NCIT for my Master's degree in order to develop my career in the IT field has been a truly wise decision . . . Because of its quality education and teaching methodology, NCIT is a great place to look forward to for a better learning experience. Also, the continuous support from all faculty & staff members is what I actually appreciate. I'd like to thank NCIT for being a good educator and guide and hope this College will continue to shape the future of every student who wishes to pursue a career in the field of IT, Management or Engineering at this esteemed institution.

Bristi Bade Shrestha
MCIS Graduate





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