CHITKARA UNIVERSITY

DISCOVER ENGINEERING

IMAGINE | INNOVATE | INSPIRE

Engineering
Academic Year 2026


EXPLORE YOUR POTENTIAL

CHITKARA ENGINEERING

Engineering Programs with a world-class reputation

The Engineering Education at Chitkara University is exceptional, combining cutting-edge research, experienced faculty, and state-of-the-art facilities.

We help these bright minds develop into changemakers with global perspective, technical prowess and leadership skills to make a difference in the world.

Our curriculum emphasises innovation, hands-on learning, and real-world problem-solving. Chitkara University graduates gain deep technical expertise, critical thinking, and leadership skills. We nurture strong industry partnerships and offer extensive internship opportunities, ensuring that our graduates are highly skilled, adaptable and ready to excel in their careers.

CHITKARA
UNIVERSITY

CHITKARA UNIVERSITY PUNJAB

Chitkara University is a UGC recognised University with the right to confer degrees as per the Sections 2(f) and 22(1) of the UGC Act, 1956 and is established by the Punjab State Legislature under, "The Chitkara University Act".

CHITKARA UNIVERSITY HIMACHAL PRADESH

Chitkara University is a UGC recognised University with the right to confer degrees as per the Sections 2(f) and 22(1) of the UGC Act, 1956 and is established by the Himachal Pradesh State Legislature under "The Chitkara University Act".

RECOGNISED FOR EXCELLENCE

Chitkara University has been awarded an **A+ rating by the National Assessment and Accreditation Council (NAAC),** placing us in the Top 5% of Higher Education Institutions in India.

Our programs are recognised among the **Nation's Best in the NIRF Rankings, securing a prestigious position within the Top 100 in the University category.**

We take pride in being listed among the **World's Leading Universities in the QS World University Rankings.**

The University consistently features among the **Top 15 institutions in India & Top 500 Globally,** highlighting its strong commitment to advancing **the Sustainable Development Goals.**

Chitkara University is **Ranked 1st in the Country** for **Research Quality** and stands among the **Top 800 Globally.**

We are acknowledged as one of **India's Top Institutions (Under The Process Pillar),** and also ranked among the **Top 200 Globally.**

Year after year, Chitkara University has earned recognition among the **Top 10 Universities** in India for filing the maximum number of patents.

Consistently ranked high by:

STRONG ACADEMIC HERITAGE

Chitkara University is founded by Dr. Ashok K Chitkara and Dr. Madhu Chitkara, academicians with over five decades of teaching excellence. They are invested in the growth of every student at Chitkara University and ensure they evolve into well rounded personalities, subject experts, creative thinkers and future-facing individuals – set to grapple with real world challenges and become changemakers of tomorrow.

THINGS WE'RE PROUD OF

THERE ARE SO MANY REASONS TO CHOOSE CHITKARA UNIVERSITY. HERE ARE A FEW REASONS WHY WE BELIEVE YOU'LL LOVE US AND BE PROUD TO JOIN US.

INDUSTRY-LED COURSES

We maintain close links and associations with leading blue-chip companies to deliver our academic programs and ensure that our courses are relevant, practical and deliver the skills in demand, allowing our graduates to hit the ground running.

COUNTED AMONG THE BEST

Our programs are consistently ranked among the Top 50 in the country.

TOP 20 RANKING

Chitkara University has been consistently ranked among the top 20 Private Universities of the country.

CAMPUS PLACEMENTS

Chitkara University has established an unassailable reputation for strong on-campus recruitments. Our students have gained employment in diverse professional roles and areas across the world. From managing hotels to discovering new drugs to helping patients in hospitals to analysing the stock market, a Chitkara University degree can lead to varied and rewarding career paths.

MORE CEOs

Industry leaders from across sectors visit our campus and interact with our faculty as well as student community to groom them for future leadership roles.

WORLD-CLASS RESEARCH EXCELLENCE

With more than 5000 patents and project funding from leading organisations such as DST and HP, our researchers, staff and students work across disciplines to extend the boundaries of knowledge. We are being recognised nationally for pioneering research in anotechnology, Mobile Learning, Robotics, Renewable Energy and Mechatronics.

LEARN FROM THE BEST

You will work with some of the brightest and most inspiring academics, lecturers and researchers in the world.

LEADING INNOVATION

Chitkara Innovation Incubator helps turn students' business ideas into reality. Student ventures with scalable, commercial potential are given access to high tech, a collaborative office space, and are paired with industry mentors to develop scalable business plans and market testable products and services.

TOP SKILLS

There is an intense focus on developing communication skills, team work and leadership for each and every student.

MODERN FACILITIES

Chitkara University has made huge investments in developing student facilities - giving our students access to state-of-the-art labs, design studios, libraries, sporting and social facilities.

TRAVEL THE WORLD

At Chitkara University, we offer over 300 exchange programs to choose from.

LEARNING BY DOING

Our curriculum is based on the framework of strategic competitiveness, which teaches the concepts of creativity, entrepreneurship, innovation, sustainability, leadership and incisive decision making.

BEST LOCATION

With a high quality of living and vibrant student mix, Chandigarh, also known as City Beautiful, has rightfully earned its place in the 'Times 15 Best Asian Spots'.

SAFE & SOUND

We take great pride in looking after our students. We have zero tolerance to ragging.

5 STARS

All our institutions and academic programs are recognised and approved by UGC and various regulators such as NAAC | AICTE COA | NCHMCT | INC.

City Beautiful Chandigarh

A MILLION PEOPLE; INFINITE POSSIBILITIES

Chandigarh is undergoing rapid urbanisation and the transformation has been holistic and all-inclusive. Over the years, the city has made remarkable progress in terms of physical infrastructure and business environment and has emerged as an economic growth centre with one of the highest per capita incomes in India.

Ample opportunities are available to work and grow in the IT, BPO and pharmaceutical sectors in the region. It has proven to be a magnet for potential employers and employees.

The open hand is the official emblem of Chandigarh; it symbolises the city's philosophy of being "open to give" and "open to receive". Chandigarh has seen the growth of some major start-ups over the last few years. The city has kept pace with the ever evolving education sector to become the one-stop destination for all education needs. This makes Chandigarh ideal for students who wish to enjoy the blend of rich culture of city life and the peaceful environment that this city offers.

Chandigarh is easily accessible from Delhi, Haryana, Punjab, Himachal Pradesh and other metropolitan cities through various modes of transportation, viz. buses, trains and direct flights both national and international, from Dubai, Singapore, Sharjah, etc.

EXPLORE YOUR POTENTIAL WITH CHITKARAU.

CHITKARA EDUCATION BRINGS WITH IT A REPUTATION FOR EXCELLENCE AND INNOVATION THAT HAS BEEN EARNED THROUGH YEARS OF SERVING THE CAREER-NEEDS OF THE STUDENT COMMUNITY.

STRONG ACADEMIC HERITAGE

Chitkara University has been established and managed by passionate academicians with the sole mission of making each and every student "industry-ready".

BEST LOCATION

With a high quality of living and vibrant student mix, Chandigarh, also known as City Beautiful, has rightfully earned its place as one of the safest and most livable cities in the country.

TOP 20 RANKING

Chitkara University has been consistently ranked among the top 20 Private Universities of the country.

MODERN FACILITIES

Chitkara University has made huge investments in developing student facilities and giving our students access to world-class labs, design studios, libraries, sporting and social facilities.

LEADING INNOVATION

Chitkara Innovation Incubator helps turn students' business ideas into reality. Student ventures with scalable, commercial potential are given access to high tech, a collaborative office space and are paired with industry mentors to develop scalable business plans and market testable products and services.

Since inception, Chitkara University has had a path breaking recruitment record for graduates from various academic programs. Some of our prominent recruiters on campus are:

accenture | adani | Adobe | amazon | Deloitte.
EY Shape the future with confidence | GE | Google | HDFC BANK | HONDA The Power of Dreams
hp | IBM | Infosys | Kellogg's | KPMG
L&T | mahindra Rise | MARRIOTT | Microsoft | pepsico
Pfizer | Reliance | SAMSUNG | TATA | ZARA


Dr. Heikki Valmu
Explore Your Potential

CHITKARA ENGINEERING

At Chitkara University, our Engineering Programs will equip you with all the skills necessary to make you employable, enterprising and entrepreneurial. Engineering graduates are some of the most sought-after across the world and we will do our utmost to prepare you for future success.

MEETING THE DEMANDS OF INDUSTRY

No matter which course you choose, you can be certain that its content will be current and at the forefront of knowledge. Engineering is a rapidly advancing discipline and we want you to be ahead of the game.

KNOWLEDGEABLE & FRIENDLY FACULTY

As a Chitkara Engineering student, you'll learn from leaders in the field. Our faculty includes award-winning scholars, determined researchers, innovative entrepreneurs and celebrated personalities. They're experienced and inspiring with a genuine desire to help you achieve your full potential. Our tutors have considerable industry experience. Many of them are also actively involved in providing consultancy and knowledge transfer for local and national companies. With extensive business links, they bring expertise and innovation into their teaching. So not only will you gain an extensive knowledge of your subject, you will also get plenty of hands-on experience solving real world Engineering challenges.

A REPUTATION FOR INNOVATION

Our academic expertise has given us an international reputation for innovation. Year after year, Chitkara University has been ranked among the Top 10 Universities of the country for filing maximum patents which speaks volumes about our research team, state-of-the-art infrastructure and intensive focus on new ideas and technologies.

HIGHLY RATED PROGRAMS

Our Engineering programs are endorsed by leading external accreditation bodies for their ability to equip you to meet the requirements of the modern engineering environment. These accreditations include: The Institution of Mechanical Engineers (IMechE) and The Institution of Engineering and Technology (IET).

GLOBAL ENGINEERING

Our Engineering graduates have the option to study the first 2 years of Engineering programs at Chitkara University campus and then complete their Degree at over 100+ partner Universities across the world.

100% CAMPUS RECRUITMENT

We have established an unassailable reputation for very strong on-campus recruitments by sheer virtue of our intensive focus on making all our graduates "industry ready". 750+ leading Blue Chip companies visit our campus for hiring our Engineering Graduates.

CHITKARA ENGINEERING

Counted among the best

nirf NATIONAL INSTITUTIONAL RANKING FRAMEWORK
Ministry of Human Resource Development
Government of India

Our Engineering programs have once again been ranked among the Top 100 in the country in 2025 NIRF Ranking.

QS WORLD UNIVERSITY RANKINGS

QS Asia University Rankings | 2026
QS RECOGNITION AWARD

We are proud to be ranked among the world's best in the 2026 rankings.
We are also the only University in India to receive the QS Recognition Award for Performance Achievement.

THE World University Rankings

Chitkara University is recognised among the Top Global Institutions in THE 2026 rankings.

SCIMAGO INSTITUTIONS RANKINGS

Chitkara University is ranked among Top 50 in India.

Times Higher Education
Impact Rankings 2025

Chitkara University has achieved the 10th Rank in India and 301-400 Globally, reflecting its comprehensive dedication to advancing the Sustainable Development Goals.

WURI WORLD'S UNIVERSITIES WITH REAL IMPACT

Chitkara University achieves Top Global Rankings in WURI 2025.

Clarivate Derwent™

Chitkara University makes it into Top 200 in the leading innovators' list of Clarivate Analytics.

THE Awards Asia 2025

We are the only Indian University shortlisted for 'Technological Innovation of the Year' of 'Times Higher Education Asia Awards 2025.'

MHRD Ministry of Human Resource Development Government of India
स्वच्छ भारत एक कदम स्वच्छता की ओर

We are ranked as one of the Cleanest Universities of India in the 'SWACHHTA' ranking.

THE TIMES OF INDIA

Chitkara Engineering is ranked in the Top 20 Engineering programs.

BW|BUSINESSWORLD

Chitkara University has ranked an impressive 20th nationally in annual Engineering Rankings.

competition success review

Chitkara Engineering is ranked in the Top 10 Engineering programs.

INDIA TODAY

Chitkara Engineering is ranked among Top 40 in the country.

Jagran josh

Chitkara University is ranked as the Top Engg. University in Punjab.

THE WEEK

Chitkara Engineering is ranked among Top 40 in the country.

CAREERS360

Chitkara University is rated AAAA+ in India's Best Private Engineering Universities.

Outlook

Chitkara University ranked in 'Top 30' in the Engineering Rankings.


FORMULA
STUDENT
096
CHITKARA
UNIVERSITY, PUNJAB

CHITKARA ENGINEERING

Key Facts

Here are a few reasons why Engineering programs at Chitkara University in Punjab & Himachal Pradesh are rated as the best by our students, parents, alumni and industry.

HIGH GRADUATE EMPLOYMENT

Our Engineering graduates are highly employable. We have been achieving 100% campus recruitment record for our graduates since inception.

HIGHLY RANKED PROGRAMS

Our Engineering programs have been consistently ranked as one of the best in the country by NIRF, ARIIA, QS World University Rankings among others.

ENTREPRENEURSHIP START ME UP

Do you have the “E gene”? We help students turn an idea into a product, company, or social movement through our unique entrepreneurship programs and competitions.

SUPPORT IN MATHEMATICS

All our Engineering programs have intensive focus on Mathematics and Applied Sciences. Our team helps Engineering students from different Maths backgrounds succeed through special modules and workshops.

RESEARCH EXCELLENCE

Study with us and you will learn from faculty with a stellar reputation for research. We have 35 crore+ research grants & students can embark on research right from Day 1.

ELECTIVES AND SPECIALISATIONS

We offer more than one path to your goal — 70 percent of Engineering Undergraduate students pursue various specialisations and electives or a minor, often in a non-Engineering discipline.

INDUSTRIAL PLACEMENTS

Our courses include placement opportunities to give you valuable real-world experience and boost your employment prospects. We have strong links with organisations such as Google, Amazon, Infosys, L&T, Wipro and Virtusa among other 500+ employers.

LEADING INNOVATION

Year after year, we have been ranked among the Top 10 Universities of the country for filing maximum patents which speaks volumes about our research team, state-of-the-art infrastructure and intensive focus on working with new ideas and technologies.

GLOBAL PARTNERSHIPS

Our reputation has led to strong partnership with top global Universities across the world providing Engineering students unlimited opportunities for summer schools, semester exchange, international internships and work integrated learning.

CUTTING-EDGE FACILITIES

Get hands-on experience building everything from microprocessors to industrial robots with 100+ cutting edge labs using the same generation of technology as leading industries.

WORK-READY WORLD-READY

Study with us and we will equip you to become 'The Chitkara Graduate', a world-ready professional, with the knowledge, attributes and expertise that employers look for.

SHOWCASE YOUR WORK

Each year we have annual design and research festival NOVATE, an opportunity for graduating students to showcase their work to employers and industry specialists.

The iOS Student Development Centre at Chitkara University, powered by Apple and Infosys, industry leaders shaping the world's most advanced mobile ecosystems, offers every student the chance to experience world-class innovation at their fingertips. Students gain access to Apple's products, tools and resources, strengthening their creativity and confidence to build meaningful solutions. Through hands-on product development journeys, real-world projects, expert mentorship, and global opportunities such as the WWDC Swift Student Challenge, students develop solid technical skills and a thoughtful approach to problem-solving while engaging with two industry giants defining the future of mobile technology.

State of the art
Labs & Facilities

Turn what you learn in class into reality in more than 100+ cutting-edge labs. Get hands-on experience building everything from microprocessors to industrial robots, using the same generation of technology as leading industries across the region. The focus is to generate new ideas, create innovative solutions and apply basic principles with an emphasis on using all this knowledge in developing industry-university Engineering centres.

We have collaborations with world-class companies to include faculty development programs, soft-skills training workshops, industrial visits, technical competitions, live projects and guest lectures. Notably, our Engineering facilities include a number of instructional and research laboratories, including the Microsoft Innovation Centre, nVidia CUDA Teaching Centre, NXP Semiconductors Signal Lab and Dassault Systèmes.

- Advanced Materials & Manufacturing Lab
- ARM Research Lab
- Artificial Intelligence Lab powered by NEC Corporation
- Automation Lab
- Building Energy Efficiency Ergonomics Lab
- CAD/CAM Lab
- Cadence Microelectronics Lab
- Capgemini 5G Wireless Lab
- CISCO Networking Lab
- CoE on Emerging Technology
- Dassault Systèmes
- Digital Communications Lab
- Digital Enterprise Service Lab under Nexus CoE
- Digital Signal Processing Lab
- Electrical Engineering Lab
- Electrodynamics Lab
- Emerging Technologies Lab
- Ergonomics Lab
- Fluid Applications Lab
- Fluid Dynamics Lab
- Fiat Crysler Automobile Lab
- Google Innovation Lab
- Honda Design Lab
- Integrated Circuit Design Lab
- Internet of Things Lab
- iOS Development Centre
- Lean Manufacturing Lab
- Mahindra Rise Innovation Lab
- Microsoft Innovation Lab
- Mitsubishi Electric Lab
- Metrology Lab
- Microwaves & Electromagnetics Lab
- National Centre of Excellence for Cyber Security (NCoE)
- NewGen IEDC Innovation Lab
- nxP Design Lab
- Robotics & Mechatronics Lab
- Plumbing Lab
- Power Systems Lab
- Rapid Prototyping Lab
- Robotics and Intelligent Systems Lab
- SAP Innovation Lab
- Schneider Electric Lab
- Wittur Transportation Lab
- Vibrations Lab
- Full Stack Lab Tech Mahindra

Capgemini

CODE EXPERIENCE CENTER ON CAMPUS

The CodeXperience Center (CEC) Lab at Chitkara University, has been developed in partnership with Capgemini, world's leading AI-powered technology and consulting companies known for steering digital transformation across global industries.
This center is designed to foster real-world competencies in emerging technologies, enabling students to gain future-ready skills through immersive training programs, hands-on live projects, and expert mentorship from industry professionals. By bridging the gap between academia and industry, the center empowers learners to thrive in the dynamic digital landscape and become catalysts for innovation.

Strong Industry Collaborations

Chitkara University lays an intense focus on making each and every Engineering graduate industry-ready. In order to make sure that our students have access to latest tools and technology, we have collaborated with industry majors ranging from software, semi conductor to automation and automotive sectors so that our curriculum and innovation labs are in sync with latest industry trends.

Jio Games INNOVATION CENTRE

The Jio Games Innovation Centre at Chitkara University, India's first industry-backed gaming innovation hub, is a dynamic space where technology, creativity and education converge. The centre provides cutting-edge infrastructure for e-sports, cloud gaming and live streaming. The industry-integrated curriculum empowers students to explore gaming as a frontier for innovation. With expert mentorship, live projects and global exposure through competitions, the Jio Games Innovation Centre is shaping the problem-solvers and creators of tomorrow, preparing them for careers in gaming and emerging tech ecosystems.

Overview of Campus recruitment for our Engineering programs

Our Engineering graduates go on to have great careers, as we're hands on and responsive in our teaching. We provide a great environment to study and our research is world class. We have established a solid reputation for very strong on-campus recruitments owing to our intensive focus on making all our graduates "industry-ready". Our brilliant campus recruitment is also the end result of our teaching approach which is learning-centric, enhancing knowledge, skills and understanding through practical experience.

25th batch of Engineering graduates from Chitkara University, Punjab & 17th batch of Engineering graduates from Chitkara University, Himachal Pradesh appeared for the campus recruitment process this year.

98%
OF OUR GRADUATES ARE EMPLOYED WITHIN 7th SEMESTER OF THEIR DEGREE

72%
OF OUR GRADUATES ARE PAID HIGHER THAN THE MARKET AVERAGE

42%
OF OUR GRADUATES GET PRE PLACEMENT OFFERS DURING THEIR INTERNSHIP TENURE

SOME OF THE TOP ON-CAMPUS RECRUITERS ARE
Infosys | Wipro | Capgemini | Mindtree | Cybage | ITC Infotech | iNautix | Hitachi | Newgen Unisys | Virtusa | Sears Holding | TechMahindra | NIIT | Mountblue | EXL Services | HighRadius Capgemini | Cognizant Technology Solutions | DXC Technology | Bajaj Finserv

FOR MECHANICAL ENGINEERING STUDENTS, SOME OF THE MAJOR COMPANIES THAT VISIT OUR CAMPUS ARE
Reliance | Mahindra & Mahindra | Hyundai | Honda | Eaton | SML | ISUZU | Yamaha | L&T | Escorts | Jindal Saw Mondelez | Godrej & Boyce | Coca Cola | Panasonic | Piaggio | Hyundai Infrastructures | JCB India | Renault Nissan | Adani | Wilmar | Atlas Copco | Grauer & Veil

FOR CIVIL ENGINEERING STUDENTS, SOME OF THE MAJOR COMPANIES WHICH VISIT OUR CAMPUS ARE
L&T Construction | Sobha Developers | 3 C | Shapoorji Pallonji | Sterling & Wilson | Cinda Construction | Lafarge Afcons | DLF | Raheja Construction | JSW Steel | Mahindra EPC

750+
Campus Recruiters For Batch Of
3000+
Engineering Graduates

310+
Companies Visiting
IITs / NITs Also
Hired From Our Campus

660+
Super Dream Offers Of
10 Lakh+

1.11
Crore
Highest Salary Offered By
amazon

500
Dream Offers Of
8 Lakh+

1150+
Students Recruited By
Infosys wipro accenture
On Day1

SOME OF THE MAJOR COMPANIES THAT VISITED OUR CAMPUS THIS YEAR AND HIRED OUR GRADUATES

accenture | adani | ADITYA BIRLA GROUP | Adobe | AFCONS

amazon | Ambuja Cement | apollo | ARM | ASHOK LEYLAND

BAJAJ FINSERV | Bank of America | BARCLAYS | blinkit | BMW

BOSCH | bp | ca | cadence | Capgemini

Carrefour | cisco | Coca-Cola | Coforge | cognizant


CONVERGYS
ddn
DEEPAK PHENOLICS
DELL
Deloitte.
DLF BUILDING INDIA
eClerx
ESCORTS
EVALUESERVE
EXL
EY Shape the future with confidence
Finolex
fiserv.
Flipkart
Fuji Electric
GeekyAnts
GENPACT
GMR Infrastructure
Godrej
GO JEK An Ojek For Every Need
Google
HCL
Hero
HEXAWARE
highradius
HINDUJA
HONDA
hp
Hashedin by Deloitte
HYUNDAI
IBM
Infosys
J.P.Morgan
JSW
Kirloskar
KONE
KPMG
LG
mahindra Rise
make my trip
MARUTI SUZUKI
Microsoft
Mindtree Welcome to possible
Mondelēz International
Morgan Stanley
MRF
NEC
NEROLAC
NETFLIX
NEWGEN
NYKAA
ORACLE
orange
OYO
paloalto
Panasonic
PERSISTENT
PHILIPS

PIAGGIO | pwc | Qualcomm | Quick Heal Security Simplified | RAHEJA DEVELOPERS

Reliance Industries Limited | RIPPLING | salesforce.org | SAMSUNG | SAP

Sapient | Schneider Electric | Shapoorji Pallonji | SIEMENS | SML ISUZU

SKODA | SUZUKI | TATA | Tech Mahindra | Texas Instruments

TITAN | TOSHIBA Leading Innovation | UNISYS | u-shin | verizon

virtusa | vivo | VOLTAS beko | vodafone | wipro

WNS | YAMAHA | zomato | zscaler | ZYCUS COGNITIVE PROCUREMENT

Inter-disciplinary Engineering Programs

Students who wish to pursue careers in these diverse and inter-disciplinary fields, or go onto graduate school, are best served by an Undergraduate Education somewhat different from that offered by traditional Engineering programs. The Interdisciplinary Engineering track at Chitkara University is one such program that provides the student with the opportunity to define their own unique engineering expertise.

Many of today's most pressing issues demand solutions that defy traditional academic boundaries. Real progress requires incorporating perspectives from business, science, arts and the humanities. To encourage creative problem-solving, Chitkara University has developed some of the most innovative and flexible programs in higher education.

Our unique inter-disciplinary programs blend engineering with fields of study with Chitkara Business School, Chitkara Design School and other schools of the University. Alumni go on to create and follow their own intellectual and professional paths in areas such as law, medicine, business, academia and government.

Multi-disciplinary engineering degree programs allow students to develop unique skill sets and specialise in areas that may not be provided in traditional degree programs. Such specialisations are driven by emerging technical fields or by a student's desire to have an immersive multi-disciplinary experience.

Delivering employability skills is a key focus of ours. The broad-based Engineering Education benefits our students, alumni and industry. Modules are taught cross-departmentally ensuring that our graduates become agile, interdisciplinary engineers that are sought after across a range of industries. You will find our graduates working in renowned companies all over the world. Google, Amazon, IBM, Microsoft and Accenture are just some of the companies hiring our interdisciplinary Engineering graduates.

Your career choices with a degree in Inter-disciplinary Engineering will be tailored as your degree program. Nearly every industry requires engineers with multi-disciplinary skillsets and you will have a unique opportunity to target positions that require multi-disciplinary engineers.

HARNESS THE POWER OF LIBERAL ARTS

Chitkara University takes a holistic approach towards technical education and is looking to provide courses on history, culture, communication, diversity and so on to provide soft skills to our Engineering graduates.

Chitkara University's strong liberal arts core curriculum provides students with invaluable skills needed by all engineers to excel not only in their professional careers, but in all aspects of life.

The core offers instruction in diverse subject areas as writing, history, philosophy, theology, social science and a foreign language. By integrating Engineering and Liberal Arts courses, students are also well prepared to work on complex technical problems that require multi-disciplinary teams to obtain effective solutions.

The development of written and oral communication skills is emphasised throughout the curriculum. The total experience provided in our curriculum is devised to enable Chitkara University Engineering students to develop creative solutions to technical problems and communicate these effectively while engaged in detailed analysis and design as well as Engineering project management.

Get involved in some of the 20+ student groups exclusively for students of Engineering and Technology. These groups help you develop skills critical to career success—leadership, communication, fundraising and teamwork. You can design, build robots or race vehicles, join a professional organisation or honours society, or make a difference in a service club.

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

American Society of Mechanical Engineers (ASME)

Association for Computer Machinery

Computer Society of India

Institute of Electrical and Electronics Engineers (IEEE)

Institute of Electronics and Telecommunication Engineers

Society of Automotive and Aerospace Engineers (SAE)

Society of Automotive Engineers

Society of Women Engineers (SWE)

The Indian Society for Technical Education

The Institution of Engineering and Technology

The Institution of Engineers

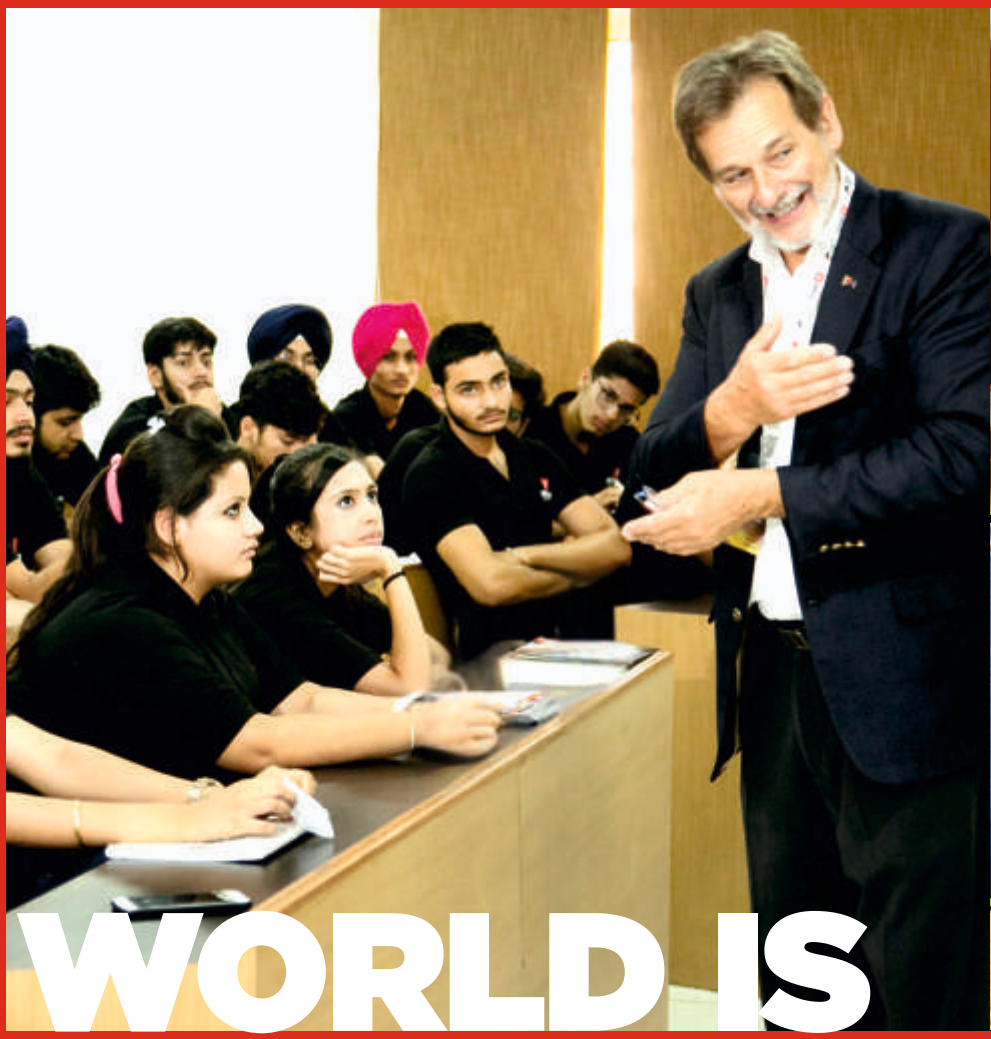
Competition Teams

- **Aero-Design Team**
- **Formula Racing Team**
- **Mini-Baja Team**
- **Supermileage Team**
- **Robotics Club**

The Global University

Live independently. Gain cultural awareness. Expand your social network around the world. Make new friends who may become your future business collaborators in an increasingly interconnected world.

Learn in a classroom on a different continent. Experience working in the real world, around the world. There are so many new experiences awaiting you at Chitkara University.



THE WORLD IS

INTERNATIONAL STUDENT EXCHANGE PROGRAMS

Gain a global perspective

Chitkara University's robust international exchange program with more than 300 overseas universities gives you the opportunity to experience living on your own in a different country. The networks you build and experiences you encounter will give you a more global and culturally sensitive perspective.

SUMMER STUDY PROGRAMS

Immerse in overseas experience

Summer Programs are short duration programs of 2-4 weeks on various specialisations. It adds to the international exposure of the students.

SEMESTER EXCHANGE PROGRAMS

Foster stronger bilateral ties

Chitkara students have the option to finish the last half part of their degree programs at our partner Universities. Students visit Partner Universities for six months to one year for completing their semesters abroad.

Chitkara University's approach to Global Engineering Education rests on the belief that every student needs global knowledge and mindset. Our Engineering graduates will get many opportunities to globalise their University experience.

YOUR CAMPUS

OVERSEAS STUDY MISSIONS

Gain insights from industry leaders

Overseas study missions bring you right into the heart of multinational organisations around the world, giving you current insights on how they function through site visits. You will also experience a networking journey with prominent industry leaders, opening doors to a world of opportunities.

OVERSEAS INTERNSHIPS

Step into the global marketplace

Experience for yourself how industries and businesses operate, broaden your perspective and apply your skills and knowledge to real-world business operations.

GLOBAL EXPOSURE

Cultivate empathy

We regularly invite faculty from top Global institutions across the world. This exposure helps our students understand diverse cultural and educational contexts.

Global Engineering

Internationalisation and globalisation are key characteristics of today's work environment. The world has become a "Global Village" where economic, political, social and cultural dimensions are tightly intermingled. Such a platform offers students not only considerable opportunities but also higher complexity.

Chitkara University is prepared to face these new challenges, responding to professional and international commitments, by educating and training future Engineers to be "World-Ready" for tomorrow's world and by helping them develop skill sets desired by future employers.

OUR UNIQUE GLOBAL NETWORK

Chitkara University has established a unique network of more than 300+ partner Universities around the globe. This co-operation network forms the basis for student as well as faculty exchange programs within the framework of our educational programs.

THE INTERNATIONAL EXPERIENCE

At Chitkara University, we believe that combining a state-of-the-art education and study abroad experience is strongly desired in today's marketplace; it not only enhances candidates' professional, global and inter-cultural competence but also greatly contributes to students' personal development. Studying abroad is also an important opportunity to build a new network of friends and contacts from all over the world, which is a major asset in an increasingly interdependent world. Engineering Students from Chitkara University enjoy unforgettable experiences during their study abroad programs, such as semester exchange and summer school programs, at partner universities across the world.

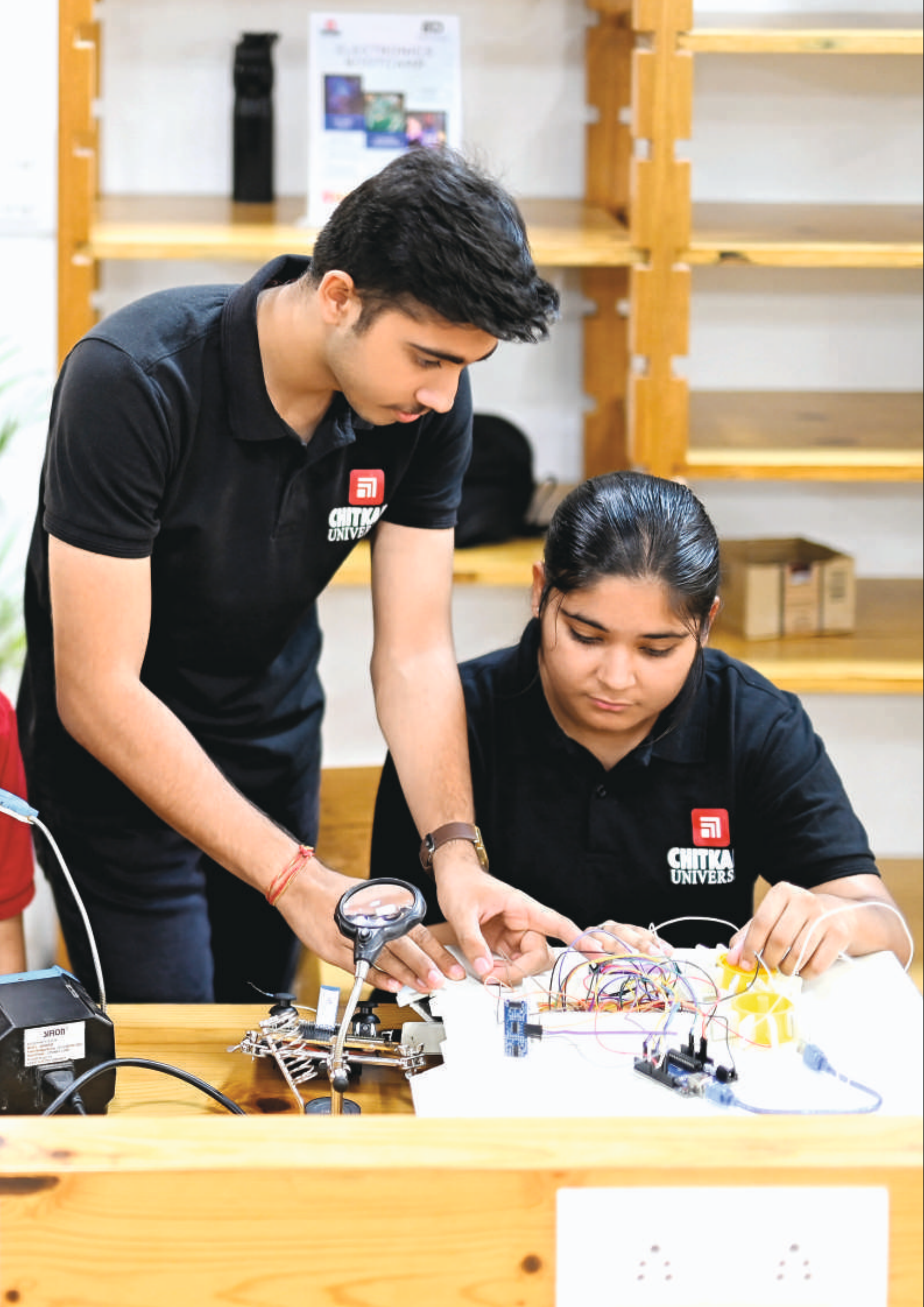
OUR INTERNATIONAL AND SUPPORTIVE STUDY ENVIRONMENT

With its growing number of international students and faculty, Chitkara University offers a international study environment. International faculty from partner universities teach short-term courses to students of Chitkara University during global events such as global engineering, automobile and business weeks.

Global Mobility of our Engineering Graduates

Our Engineering graduates have the option to study the first 2 years of Engineering programs at Chitkara University campus and then complete their Degree at a partner global University. Chitkara University offers study abroad programs across the world.

Through the years annually more than 500+ Chitkara Engineering students experience global mobility across 75+ Universities on internships, summer school and semester exchange.



Embark on Research from Day One

At Chitkara University, Engineering students benefit from mentorship by experts active in research and practice. From the outset, you'll engage in seminars discussing cutting-edge ideas and participate in hands-on research projects. The Chitkara University Research and Innovation Network (CURIN) brings together researchers, faculty, and students across disciplines to push the boundaries of knowledge. With 51+ advanced research centres under CURIN, Chitkara University fosters innovation and leadership, driving impactful solutions to real-world challenges through collaborative research.

ENGAGE IN REAL RESEARCH

Our faculty and undergraduates work on innovative solutions to global challenges, supported by funding from private industries and government agencies, including the Department of Science & Technology (DST).
Students begin research from Day 1 with faculty mentorship and financial assistance. Opportunities include faculty-led projects, internships, and initiatives like hackathons, entrepreneurship events, and startup ventures.
Engineering students have ample platforms to showcase their work, such as the university-wide Undergraduate Research and Design Day. Graduating seniors apply their learning to real-world projects, often addressing local business needs, with evaluations by faculty, alumni, and corporate partners.
Chitkara University has secured INR 5 crores+ under the Government of India-sponsored New Generation Innovation and Entrepreneurship Development Centre (NewGen IEDC) to support up to 100 student projects over five years. The university also hosts a Science, Technology, and Innovation (STI) Hub, funded by DST.

SOME OF THE RECENT GROUND-BREAKING INNOVATIONS BY OUR STUDENTS INCLUDE:

- Braille-Based Educational Kit: Aiding visually impaired children, developed by student entrepreneurs.
- Zadd Automotive: An e-bike prototype created using the university's rapid prototyping lab.
- Anukai Solutions: An Intelligent Traffic Management System startup that raised USD 55,000.
- Quantum Dots Air Purifier: Eliminating viruses with advanced technology.
- 80-Second Waterless Wash: Revolutionary laundry solution.
- BhuGoal Project: Ultra-precise weather prediction technology.

The University with one of the highest number of Patents in the country*

INTELLECTUAL PROPERTY INDIA

Year after year, Chitkara University has been ranked among the Top 10 Universities of the country for filing maximum patents which speaks volumes of our research team, state-of-the-art infrastructure and intensive focus on working with new ideas and emerging technologies.

5000+ Patents	**51+** Centres of Excellence	**107 Cr+** Research Grants	**19500+** Scopus indexed research papers	**20+** Joint research projects with **Global Universities**	**One of the largest University grants' recipient for the European Commission Erasmus+ Programme**

*According to 2 years ranking by the Office of the Controller General of Patents, Designs, Trade Marks and Geographical Indications, India.

CHITKARA INNOVATION INCUBATOR

THE LARGEST CAMPUS BASED INCUBATOR IN NORTH INDIA

Chitkara Innovation Incubator Foundation (CIIF) is one of the largest Government supported incubators in North India with more than 250+ start-ups. It is designed to provide aspiring student entrepreneurs with the education, resources and funding to start and expand their own businesses. In line with the Government of India's initiative of Startup India (https://www.startupindia.gov.in/), CIIF empowers founders who are and will be solving some of the world's most pressing challenges through technology-based solutions.

Key facts:

- Startups incubated since inception: 250+
- Total valuation of the incubated startups: USD 58 million
- Mentors supporting Innovation and Growth: 120+
- Startups Accelerated: 88+
- Jobs created by startups: 2500+
- Startups Funded: 101
- External funding raised by the startups: USD 6+ million
- Startups connected with Investors and Industry: 125+
- Ecosystem Partnerships & collaborations: 60+
- Fund Invested: USD 1.27 million
- Awards and Accolades: 50+
- Startups Mentored: 1000+

SUPPORTED BY

Department of Science and Technology
Ministry of Science and Technology
Government of India

ISBA

TiE

startup himachal

STARTUP PUNJAB

Ministry of Electronics and Information Technology
Government of India

#startupindia

MEITY STARTUP

t-hub

FICCI Start Ups

MSME

LAUNCH PAD
Technology Business Incubator

India Fund Fest

CHANDIGARH

NIDHI PRAYAS

Chitkara University incubated startup "Chai Nagri" raises $122k at Investor Fest

Entrepreneurship & Innovation Specialisation

Whether you already have a startup idea or are still exploring, Chitkara University's specialisation in Entrepreneurship and Innovation offers workshops to refine strategies and build entrepreneurial confidence. Through the 'Launch Your Big Idea' program, students gain training, resources and opportunities to pitch for seed funding, while events at the Chitkara Innovation Incubator foster collaboration with like-minded peers.

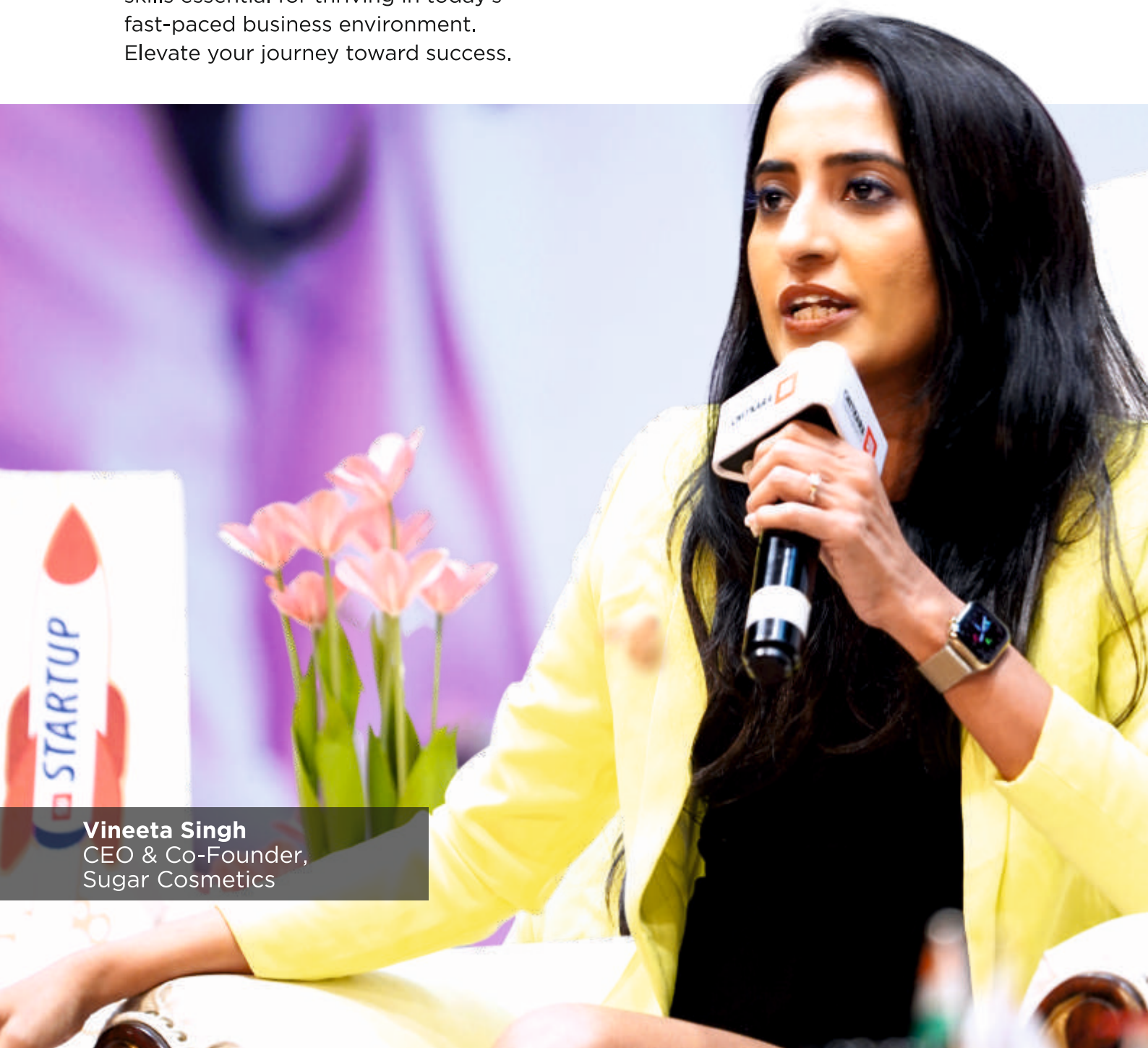
Designed for business graduates, Chitkara University's Entrepreneurship programs equip future entrepreneurs with the skills to start and scale ventures. The specialisation focuses on spotting and evaluating opportunities, developing new ventures, nurturing creativity and innovation, conducting market research and building effective business plans. Students also gain practical exposure to financing and the legal aspects of running startups and family-owned businesses.

Major learnings include:

- Identifying opportunities using advanced analytical tools
- Communicating effectively to create and assess business plans
- Applying financial principles to assess capital, cash flow and funding needs
- Designing and executing marketing plans for new venture

Get Mentored By Leading Entrepreneurs

Gain invaluable insights through mentorship with industry pioneers and startup leaders. Gain firsthand knowledge from their experiences, strategies, and challenges as they share their secrets to success.
This exclusive opportunity empowers you to forge valuable connections, sharpen your vision, and cultivate the skills essential for thriving in today's fast-paced business environment.
Elevate your journey toward success.



Vineeta Singh
CEO & Co-Founder,
Sugar Cosmetics

Ankur Warikoo
Entrepreneur, Angel Investor
and Bestselling Author

Ghazal Alagh
Founder, Mamaearth

Aman Gupta
Co-founder, Boat Lifestyle

Raj P Narayanam
Founder, Zaggle

Ananya Birla
Chairperson & Director
Chaitanya India Fin Credit Pvt Ltd.

STUDENT LIFE HERE IS:

DYNAMIC

3,000

More than **3,000** events offered each year through the Office of Student Affairs

DIVERSE

100%

One of the most diverse campuses in the country

INCLUSIVE

200

More than **200** recognised student organisations

SAFE

TIER 1

One of the safest University campuses offering a safe and healthy environment

ENGAGING

1000

More than **1000** educational and social programs organised for hostel students

ACTIVE

50

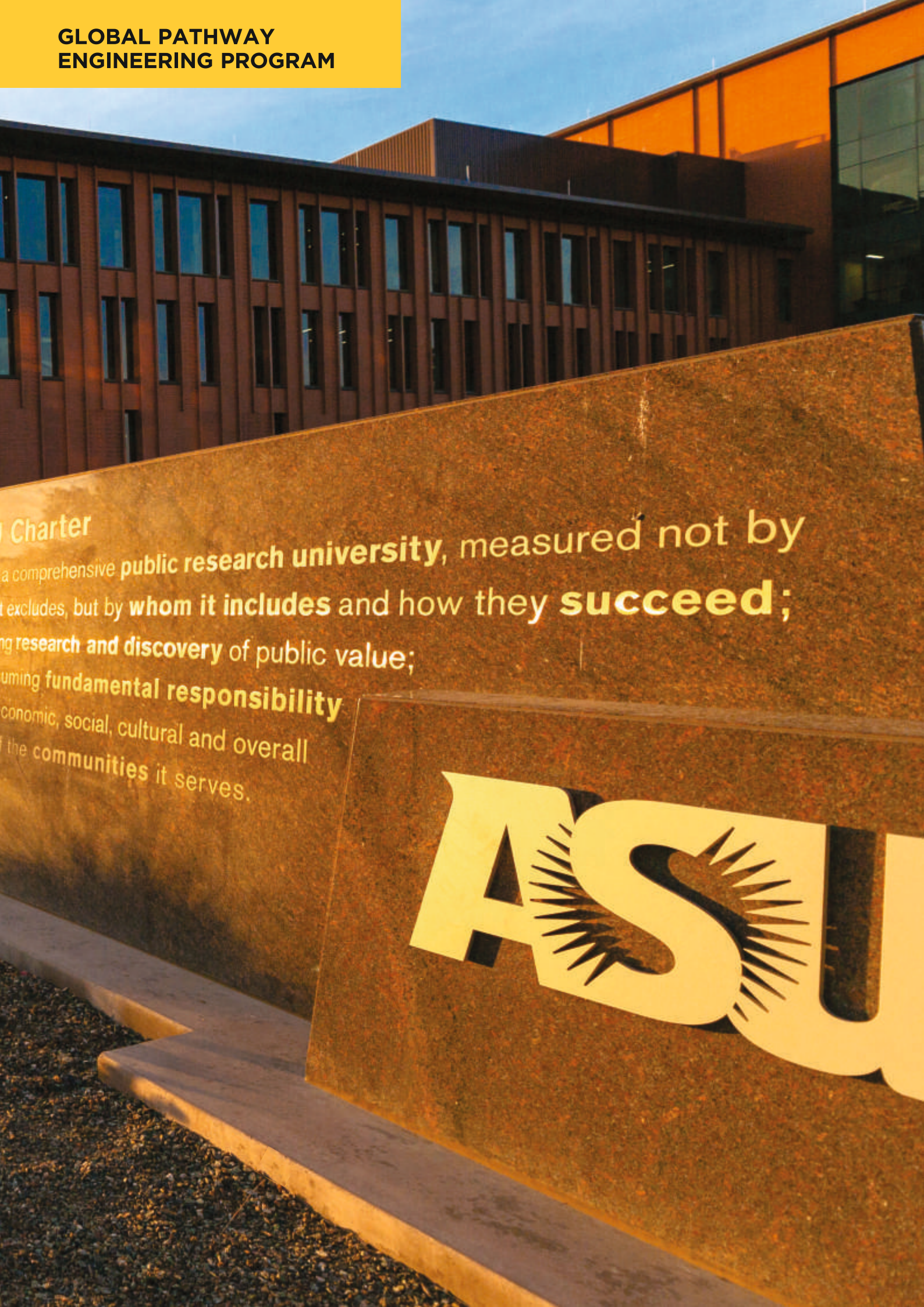
More than **50** team and individual sport programs are offered throughout the academic year

SUPPORTIVE

60 HOURS

Cross-disciplinary tutors are available more than **60** hours a week in the Centre for Learning Resources

GLOBAL PATHWAY ENGINEERING PROGRAM



B.E. in Computer Science & Technology in Academic Mentorship with Arizona State University, USA

Chitkara University, in academic mentorship with Arizona State University (ASU), offers a unique 2+2 program in Bachelor of Engineering (B.E.) in Computer Science & Technology. This program allows students to complete their first two years in India at Chitkara University, followed by two years at ASU in the U.S. to earn a BS in Computer Science degree.

This partnership builds on ASU's reputation as the #1 Most Innovative University in the U.S. for eleven consecutive years (2016-2026) by U.S. News and World Report and its ranking in the Top 10 among U.S. universities for patents (2024, U.S. National Academy of Inventors). Chitkara University is the first in Punjab to collaborate with ASU, providing students with the opportunity to study under a global curriculum and faculty expertise.

The first two years of the program, delivered at Chitkara University, follow a curriculum mapped to ASU's BS in Computer Science degree. Students will experience an applied American pedagogy, gaining foundational knowledge in Computer Science while benefiting from lower tuition and living costs in India. Afterward, they will transfer select credits to ASU in the U.S. to complete their degree, saving on international tuition fees for the initial years.

In addition, Chitkara students will have access to masterclasses, certificates, and interactions with prominent ASU faculty, further enhancing their learning experience. The curriculum is designed to ensure students develop deep expertise in core subjects, including programming, data structures, algorithms, and computational modeling. The program also offers an option to specialise in Software Engineering (SE) or Cybersecurity during the final two years at ASU.

One of the key benefits of this program is the potential to earn an ASU degree while saving on living expenses in India. Additionally, students will have the option to complete their B.E. degree from Chitkara University if they choose not to transfer to ASU. Upon successful completion of the program, graduates will be eligible for Optional Practical Training (OPT) under the STEM program, allowing them to work in the U.S. for up to three years.

This 2+2 program is a groundbreaking opportunity for students, offering them the chance to study at two renowned institutions, gain international exposure, and earn a globally recognised degree. Chitkara University's partnership with ASU ensures that students receive a world-class education, equipping them for a successful career in the rapidly evolving technology field.

SCAN FOR MORE INFO

Harness ASU's global reputation as the No. 1 school for innovation, global impact and sustainability

Arizona State University, ranked the No. 1 "Most Innovative School" in the nation by U.S. News & World Report for eleven years in succession, has forged the model for a New American University. Year after year, ASU ranks at or near the top of the list in areas that matter.

ASU is a comprehensive public research institution, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

A commitment to reducing our carbon footprint

ASU is one of just two universities in the U.S. (and only 43 worldwide) to have achieved net zero greenhouse gas emissions. The net zero goal was reached six years ahead of our target.

Top 10 in the world for U.S. patents

ASU along with MIT, Purdue and Stanford

- U.S. National Academy of Inventors, 2024

ASU students win $1M XPRIZE

A team of students beat out nearly 1,000 worldwide entries to be named the winner of the XPRIZE competition for their design of a functional, comfortable mask to prevent the spread of COVID-19.

#1 public university in the U.S. chosen by international students

ASU ahead of the UCLA, Purdue and the University of Texas

-Institute of International Education, 2021-24

ASU student innovators win international competition

After beating out 182 teams, two first-year ASU students represented the U.S. on the world stage against 44 other countries, where they won for their idea for a revolutionary note-taking tool.

A leader in the semiconductor revolution

Students are becoming prepared for the critical semiconductor industry , while ASU is helping to add more jobs and strengthen the economy by providing research, education, innovation and talent for the industry.

Untangling the origins of Alzheimer 's

An ASU professor is making advancements in Alzheimer's disease research with new technology that looks at its origins on the molecular level.

#1 in the U.S. for innovation

ASU ahead of MIT and Stanford

- U.S. News & World Report, 11 years, 2016-2026

#1 in the U.S. and #2 in the world for sustainable practices

ASU ahead of Stanford and UC Berkeley

- Association for the advancement of Sustainability in Higher Education, 2023-25

#1 in the U.S. and top 10 in the world for global impact

in research, outreach and stewardship

- Times Higher Education, 2025

Professor's groundbreaking research cleans the air

A carbon capture system based on an ASU professor's innovative research is being funded by the Department of Energy. The mechanical trees catch and store carbon from the air at an estimated rate of 1,000 times that of an actual tree.

In the 3rd and 4th years, students will have 3 tracks to choose from:

- BS in Computer Science without specialisation
- Bachelor of Science (BS) in Computer Science with a concentration in Software Engineering
- Bachelor of Science (BS) in Computer Science with a concentration in Cybersecurity

Program Framework at Chitkara University

Year 1 & Year 2

Some of the courses you will cover in the first 2 years of B.E. in Computer Science & Technology are:

- Principles of Programming Java
- Object-Oriented Programming & Data Structure
- Calculus for Engineers
- Discrete Mathematical Structures
- Digital Design Fundamentals
- Computer Organisation & Assembly Language Programming
- Data Structure & Algorithms

Program Framework at Arizona State University

Year 3 & Year 4

Some of the courses you will cover are:

- Computing Ethics
- Introduction to Theoretical Computer Science
- Introduction to Software Engineering
- Information Assurance
- Probability and Statistics
- Operating Systems
- Principles of Programming Languages
- Database Management
- Computer Networks
- Distributed Software Development
- Applied Linear Algebra

In the 3rd and 4th years, students will have 3 tracks to choose from:
They can opt to pursue:

- **BS in Computer Science without specialisation**
  Or they may choose from one of the two concentrations: Software Engineering or Cybersecurity.

- **Bachelor of Science (BS) in Computer Science with a concentration in Software Engineering**
  Students enrolled in the BS in Computer Science with a concentration in Software Engineering will delve into the development of distributed software, service-oriented applications, modeling notations, software architectures and other tools and skills necessary to work as a software engineer or software task leader on both large and small projects. This specialisation provides a robust foundation for advanced studies and engaging in research and development in emerging domains like model-based design, enterprise software engineering, service-oriented architecture, simulation-based software development, and visual modeling system-of-systems engineering.
  Some of the courses covered are:
  Distributed Software Development | Software Analysis and Design | Software Integration and Engineering
  Software Quality Assurance and Testing

- **Bachelor of Science (BS) in Computer Science with a concentration in Cybersecurity**
  The goal of this concentration is to equip students with comprehensive knowledge, skills, and advanced development capabilities in science and engineering specific to cybersecurity. This includes expertise in computer and network security, software security, data and information security, applied cryptography, and computer forensics. Graduates of this specialisation not only possess a competitive advantage for advanced studies or employment but also demonstrate a commitment to ethical cybersecurity practices and effective risk mitigation strategies in the ever-evolving landscape of digital security.
  Some of the courses covered are:
  Information Assurance | Computer Systems Security | Computer Network Security
  Computer and Network Forensics | Artificial Intelligence for Cybersecurity

Excel in your profession

Graduates of the program are well-prepared for diverse careers in computer science, including roles in software development, cybersecurity, system analysis, and network management. Potential job titles include:
Software Developer | Cybersecurity Analyst
Database Administrator | Information Security Analyst
Telecommunications Engineering Specialist
Computer Programmer | Software Analyst
This program also opens up opportunities for entrepreneurial ventures in the technology sector, as well as advanced studies in fields such as artificial intelligence, data science, and software engineering.

Top 10 in the world for student - employer connections

due to a robust network of industry partners, abundant internship opportunities and an innovative career platform to connect you with employers.

Ahead of Princeton, MIT and Stanford
- QS World University Rankings, 2022

Top employers for graduates

Amazon
Apple
Capgemini
Dell
Google
HCL
HP
IBM
Infosys
Intel Corporation
L&T
Microsoft

250+
companies launched based on ASU innovations.

$104+
billion in external research funding.

5,000+
invention disclosures.

25,000+
jobs created by ASU-linked startups.

620,000+
members of the ASU alumni network.

CHITKARA UNIVERSITY

DEAKIN UNIVERSITY

CRICOS Code: 00113B

AUSTRALIAN ENGINEERING PATHWAY PROGRAMS

Chitkara University, in academic mentorship with Deakin University, Australia, offers exclusive 2+2 pathway programs in Software Engineering and Artificial Intelligence & Machine Learning (AI & ML).

Students can begin their journey in India by enrolling in either the B.E. in Software Engineering or the B.E. in Artificial Intelligence & Machine Learning (AI & ML) at Chitkara University. After completing the first two years, they have the option to seamlessly transfer, with 100% credit recognition (subject to statutory requirements), into the third year of Deakin University's coveted 4-year Bachelor of Software Engineering (Honours) or Bachelor of Artificial Intelligence (Honours) programs in Australia.

Through this model, students gain access to Deakin's advanced applied engineering curriculum and mentorship from accomplished international faculty while studying in India. The programs are designed to prepare future-ready professionals skilled in building disruptive technologies and developing innovative solutions that address tomorrow's challenges. Students can explore diverse and emerging areas such as robotics, algorithms, programming, Artificial Intelligence systems and software architecture, while working with state-of-the-art facilities.

By studying the first two years at Chitkara University, students also benefit from paying only a fraction of the international tuition fee and living costs before transferring to Deakin University, Australia, to complete their degree and graduate with a prestigious Deakin University Honours degree.

SCAN FOR MORE INFO


MELBOURNE
Top 1%
of Universities
Worldwide

Secure your future

Study at a multi-award winning, internationally recognised university, and join more than 61,000 high-achieving students who choose Deakin for its:

Excellent graduate outcomes | Practical, hands-on approach to learning | State-of-the-art facilities
Teachers with experience and influence in their field | Industry-led curriculum and real-world learning
Robust industry network | Work placement programs in Australia and overseas
Flexible study options, whether on campus or online.

Get work-ready with our industry connections and work placements

Our close ties with industry mean that you get:

- Work placement and study abroad opportunities to graduate work-ready
- A well-recognised qualification that stands out to employers
- Courses matched to current industry practice.

Gain study credit through real-world experience

Get your career off to the best start by gaining skills, knowledge and networks through work experience, and earn credit towards your degree at the same time. Depending on the course, we offer:
Workplace internships | Placements | Work-integrated learning programs.

Why you can confidently choose Deakin University:

Among the Top 1% of all Universities worldwide (Source: Shanghai Rankings Academic Ranking of World Universities)

Ranked in the Top 50 young Universities in the world (Source: QS Top Young Universities)

Most satisfied students in the Australian State of Victoria for 11 consecutive years
(Source: Australian Graduate Survey and Graduate Outcomes Survey, QILT)

#1 University Careers Sservice in Australia
(Source: Australian Graduate Recruitment Industry Awards)

Australia's Top-rated Tech Support
(Source: Voice Project IT Service Quality Support Benchmark Survey)

A high-quality education, excellent employment prospects and a University experience you will love, this is what Deakin University has to offer. Deakin's approach to learning places emphasis on practical experience and the curriculum is informed by the best in the industry. And through unique DeakinTALENT graduate employment services, you will be able to directly connect with employers, build your experience and prepare for your graduate job search. As we move into an increasingly digital future, Deakin has invested in the latest technology, state-of-the-art learning tools and facilities to ensure our students are ready for the jobs of tomorrow.
This includes electrical and renewable energy labs and design and product realisation labs. You don't just study a degree at Deakin – you get a life-changing experience while investing in your career.

B.E. in Software Engineering at Chitkara University in Academic Mentorship with Deakin University

Create smart software systems and drive global digital transformation with a 4-Year B.E. in Software Engineering with academic mentorship from Deakin University.

SOFTWARE ENGINEERING

Software Engineering applies the knowledge and theoretical understanding gained through computer science to building high-quality software products. Software Engineering is the process of analysing user needs and designing, constructing, and testing end-user applications that will satisfy these needs through the use of software programming languages. It is the application of engineering principles to software development.

Software Engineering jobs are some of the most sought-after in the market. They are highly paid and are continuously in huge demand. You need to be good at coding and implementing algorithms if you want to be a good Software Engineer. Not only does the field of Software Engineering involve using some common computer languages, such as C, C++, Java, Python, and Visual Basic in an appropriate manner so intended results may be attained, but it also leads to applying the concepts in such a way that the development of the software may be made effectively and efficiently.

The market place for software developers continues to grow as new start-ups and large digital organisations are enhancing their online presence. The demand for skilled developers is greater than before due to the growth in technology.

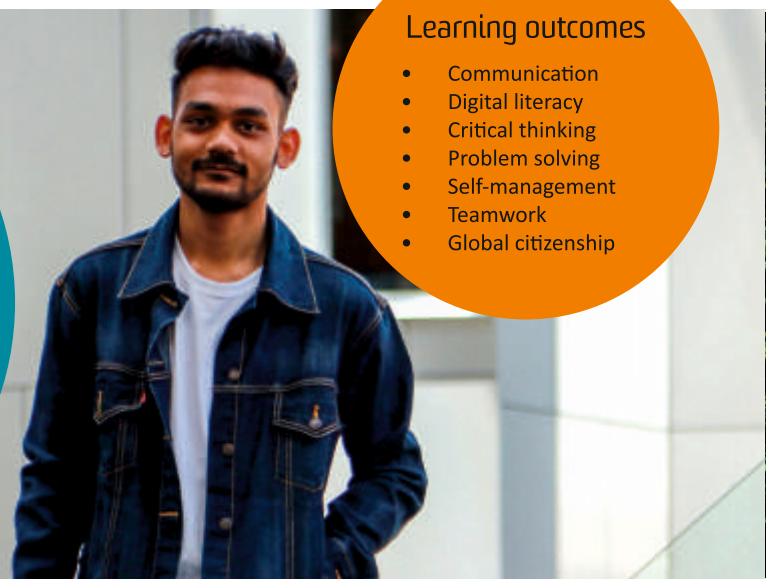
The curriculum and the academic mentorship provided by DeakinU means that students at Chitkara University develop knowledge and skills far beyond web, database technologies, and desktop software patterns. You will acquire niche skills in robotics, AI, and cyber-physical computing, the demand of the future world. With a 4-year Software Engineering degree rom Chitkara University in India or Deakin University in Australia, you will be ahead of your league in shaping the next digital transformations.

PROGRAM HIGHLIGHTS

- This program is jointly developed by mapping Chitkara University's B.E. in Software Engineering to the curriculum of the Bachelor of Software Engineering (Honours) degree at Deakin University, so that students can seamlessly transfer with 'Recognition of Prior Learning' and receive the same learning outcomes and a globally-recognised degree i.e. Bachelor of Software Engineering (Honours) from Deakin University.
- Study and apply your education in superlative infrastructure at both Chitkara University in India and Deakin University in Australia.
- High school students will also learn an applied Australian pedagogy when they start closer to home before opting to transfer after two years to Deakin University in Australia. Besides tuition fees, a student will also save on boarding and lodging costs when they stay in their home country for the first two years.
- Conditional Letter of Offer from Deakin University is issued to all students at the start of the program who wish to transfer to Deakin University based on conditions after two years of their study at Chitkara University.
- Students will be coached for the English language proficiency requirement (IELTS) during the first two years of their studies at Chitkara University.
- Your learning outcomes from the first two years of study at Chitkara University will be similar to those studying at Deakin University in Australia. This prepares you for better academic success, should you transfer in the third year to the Bachelor of Software Engineering (Honours) at Deakin University.

"The pathway program from Chitkara University has been instrumental in boosting my confidence and providing a strong foundation. It offered ample support and knowledge about Deakin's academic environment while allowing me to remain in my home country."

Tanish Dhapola
Software Engineering student



Learning outcomes

- Communication
- Digital literacy
- Critical thinking
- Problem solving
- Self-management
- Teamwork
- Global citizenship

B.E. in Artificial Intelligence & Machine Learning in Academic Mentorship with Deakin University

Gain the knowledge and skills required to design, develop and evolve software solutions that harness the latest advances in AI with a 4-Year B.E. in Artificial Intelligence & Machine Learning with academic mentorship from Deakin.

ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) is driving digital disruption through the development of smart systems and machines capable of performing tasks that typically require human intelligence. From self-driving cars to the proliferation of smart assistants, AI is a growing part of everyday life. This specialised four year course prepares you with the knowledge and skills required to design, develop and evolve computational solutions that harness the latest advances in AI.

You will study up-to-the-minute trends, insights and emerging topics to ensure you graduate with a highly relevant skill set that is sought after by employers across the globe. You will explore different AI tools and techniques as you learn key concepts and deep dive into advanced topics in machine learning, language and speech processing, and robotics.

The Bachelor of Artificial Intelligence (Honours) gives you ample opportunity to sharpen your skill set under the guidance and direction of our supportive teaching staff. In the beginning you'll explore fundamental concepts across mathematical modelling and programming, before diving into more advanced topics in data wrangling, machine learning, natural language and speech processing, robotics and AI.

The curriculum and the academic mentorship provided by Deakin means that students at Chitkara University develop knowledge and skills far beyond programming and mathematical modelling. You will acquire niche skills in robotics, AI, and cyber-physical computing, the demand of the future world. With a 4-year Artificial Intelligence degree from Chitkara University in India or Deakin in Australia, you will be ahead of your league in shaping the next digital transformations.

PROGRAM HIGHLIGHTS

- This program is jointly developed by mapping Chitkara University's B.E. in Artificial Intelligence & Machine Learning to the curriculum of the Bachelor of Artificial Intelligence (Honours) degree at Deakin, so that students can seamlessly transfer with 'Recognition of Prior Learning' and receive the same learning outcomes and a globally-recognised degree i.e. Bachelor of Artificial Intelligence (Honours) from Deakin.
- Study and apply your education in superlative infrastructure at both Chitkara University in India and Deakin in Australia.
- High school students will also learn an applied Australian pedagogy when they start closer to home before opting to transfer after two years to Deakin in Australia. Besides tuition fees, a student will also save on boarding and lodging costs when they stay in their home country for the first two years.
- Conditional Letter of Offer from Deakin is issued to all students at the start of the program who wish to transfer to Deakin (based on conditions) after two years of their study at Chitkara University. Students will be coached for the English language proficiency requirement (IELTS) during the first two years of their studies at Chitkara University.
- Your learning outcomes from the first two years of study at Chitkara University will be similar to those studying at Deakin in Australia. This prepares you for better academic success, should you transfer in the third year to the Bachelor of Artificial Intelligence (Honours) at Deakin.

CANADIAN ENGINEERING PATHWAY PROGRAM

CHITKARA UNIVERSITY | YORK UNIVERSITÉ UNIVERSITY

Global Pathway Program in academic mentorship with York University

B.E. in Computer Engineering

Chitkara University has partnered with York University, Canada, in a groundbreaking collaboration that promises to redefine educational benchmarks and elevate the student experience. This partnership opens doors to global opportunities in technology and innovation, bringing Canadian academic rigour, research excellence, and international exposure to students in India.

Ranked #9 in Canada and among the Top 300 globally for Computer Science & Engineering (Shanghai Ranking 2024), York University offers an exceptional academic environment that blends innovation, technology, research and real-world application. Our Global Pathway Program in Engineering enables students to complete the first two years at Chitkara University and then seamlessly transfer to York University, Canada, to earn their final degree after completing the third and fourth years at the York campus.

York University, the third-largest university in Canada, is located in Toronto—just a 15-minute drive from the international airport and directly connected to the downtown core through a convenient, well-connected transit system. Home to over 54,500 students, including approximately 30% who are the first in their families to pursue postsecondary education, York University is deeply committed to making high-quality, inclusive, and accessible education available to all.

LASSONDE SCHOOL OF ENGINEERING | YORK UNIVERSITÉ UNIVERSITY

Celebrating a decade of rapid growth with nearly 6,000 students, York's Lassonde School of Engineering is breaking down systemic barriers to foster meaningful change in STEM education. Specialising in Engineering, Computer Science and related fields, Lassonde addresses critical skill shortfalls in ICT, ranking in the Top 200 for Computer Science globally (Times Higher Education) and remains committed to evolving education to meet societal and economic shifts.

We are creating a different kind of learning experience. With zero lecture halls, YorkU is flipping the classroom so that students can learn in creative spaces, watch lectures online anywhere, anytime and come to class to solve problems together. We are committed to nurturing a community that is diverse, equal and inclusive.

Our goal is to help create real systemic change within STEM by challenging the current systems in place. To this end, we are connected through a global network of curriculum industry partnerships, enabling our community to impact globally through work-integrated learning programs and interdisciplinary research. Our goal is to make a real-world impact with our research, education and initiatives that will help solve some of the world's greatest challenges.

 # 9 in Canada

 # 201-300 in the World

Computer Science & Engineering
(Shanghai Ranking 2024 of Academic Subjects)

5,000+
Students from 100+ countries

LASSONDE SCHOOL OF ENGINEERING | YORK UNIVERSITÉ UNIVERSITY

B.E. in Computer Engineering at Chitkara University in Academic Mentorship with York University

4-YEAR B.E. IN COMPUTER ENGINEERING AT CHITKARA UNIVERSITY, INDIA
IS MAPPED TO THE CURRICULUM OF 4-YEAR BSC IN COMPUTER SCIENCE AT YORK UNIVERSITY, CANADA.

The B.E. in Computer Engineering at Chitkara University offers students a unique international pathway designed to prepare them for success in the fast-evolving global technology landscape.

This four-year program combines rigorous technical training in India with academic mentorship from York University, Canada—one of North America's leading institutions and ranked #9 in Canada and among the Top 300 globally for Computer Science & Engineering (Shanghai Ranking 2024). Students build strong foundations in computer science, software engineering, data management, artificial intelligence, and emerging technologies, guided by faculty who ensure industry relevance and global academic standards.

A distinctive feature of the program is its credit transfer pathway, which allows eligible students to seamlessly transfer 100% of their course credits to York University in the third year and graduate with York's 4-Year BSc in Computer Science. York's Department of Computer Science is at the forefront of shaping Canada's technological future—leading research in artificial intelligence, cybersecurity, computer vision big data, and human-computer interaction.

CO-OP OPPORTUNITIES AT YORK UNIVERSITY

Students transferring to York can apply for the Co-op Program, which offers paid work placements with leading employers such as Apple, Microsoft, Tesla, and the Canadian Space Agency. These placements provide valuable industry experience, financial independence, and a strong professional network — helping students graduate with both a degree and real-world expertise.

PROGRAM STRUCTURE

PROGRAM FRAMEWORK AT CHITKARA UNIVERSITY | Year 1 & 2

During the first two years of the B.E. in Computer Engineering program, students study a wide range of foundational and applied courses, including:

Differential Equations and Transformations | Problem Solving using Python Programming
Disaster Management | Modern and Computational Physics | Integral Calculus with Applications
Object-Oriented Programming | Discrete Structures | Linux Shell Scripting | Data Analytics
Computer Organisation and Architecture

PROGRAM FRAMEWORK AT YORK UNIVERSITY | Year 3 & 4

After completing the first two years at Chitkara University, India, students transfer to York University, Canada, to complete the third and fourth years and earn a BSc in Computer Science from York University.

At York, students can choose from two specialisation tracks:

CYBERSECURITY | DATA SCIENCE

CYBERSECURITY

Some of the courses offered in the third and fourth years for students opting for the Cybersecurity track include:

Introduction to Logic for Computer Science | Professional Practice in Computing | Information Networks
Design and Analysis of Algorithms | Software Design | Embedded Systems | Malware Analysis
Computer Network Protocols and Applications | Network Security and Forensics
Building e-Commerce Systems | Mathematics of Cryptography

DATA SCIENCE

Some of the courses offered in the third and fourth years for students opting for the Data Science track include:

Design and Analysis of Algorithms | Software Design | Introduction to Artificial Intelligence & Logic Programming
User Interfaces | Fundamentals of Machine Learning | Advanced Data Structures | Information Networks
Big Data Systems | Database Management Systems | Data Mining

CAREER OPPORTUNITIES

Graduates of this globally oriented program are equipped to take on high-impact roles across technology and innovation sectors. Potential career paths include:
Software Developer | Data Scientist | AI and Robotics Specialist | Cybersecurity Analyst | UI/UX Designer
Database Administrator | Embedded Systems Engineer | Systems Analyst or IT Consultant
IT Project Manager | Research & Development Specialist | Tech Entrepreneur

Additionally, students who pursue the international transfer to York University will gain access to:

- Advanced research opportunities and global internships
- Multinational tech firms and cutting-edge innovation hubs
- Leadership roles in diverse industries including healthcare, finance, smart technology, and telecommunications
- Higher academic pursuits such as Master's or PhD programs in computing or interdisciplinary fields

Employer Partners

ALSTOM	BMO
dayforce	ONTARIO POWER GENERATION
QUANSER INNOVATE · EDUCATE	shopify

4-Year B.E. Computer Science Program

with specialisation in

ARTIFICIAL INTELLIGENCE & FUTURE TECHNOLOGIES

Chitkara University's B.E. in Computer Science Engineering with a specialisation in AI and Future Technologies offers a forward-thinking program, crafted with an industry-endorsed curriculum. This cutting-edge program is designed to equip students with the expertise and knowledge needed to thrive in the dynamic fields of Artificial Intelligence and emerging technologies. It prepares students to tackle the technological challenges of today and tomorrow by focusing on innovation, critical thinking, and ensuring readiness for the industry.
This program nurtures the development of cross-industry talent and an entrepreneurial mindset, making it a premier choice for aspiring tech leaders. By blending solid theoretical foundations with hands-on experience, it ensures that graduates are well-prepared for successful, impactful careers in the technology sector.

Students pursuing this program major in Artificial Intelligence & Future Technologies can choose from high-demand minors in **Cyber Security | Cloud Computing | Blockchain Technology**

This comprehensive, platform-led, futuristic 4-year Undergraduate Computer Science degree will help students:

- Secure full-time internships with global tech companies in the fourth year
- Work on Industry-Aligned Projects in AI, Machine Learning, Blockchain, Cybersecurity, etc.
- Gain the opportunity to work on real-time industry projects and earn stipends while they learn
- Secure high-order algorithmic capability roles with hedge funds, research labs, Web3 firms, etc.

PROGRAM STRUCTURE

The program is meticulously designed to provide a balanced mix of theoretical foundations, hands-on skills, and real-world industry experience. The key course constituents are structured across four years to ensure students build a solid base and specialise in future technologies.

THE KEY COURSE CONSTITUENTS OF THE PROGRAM ARE

Foundational | Academic | Skilling | Open Elective | 1-year Work Integration

Year 1: Skilling and basics of Computer Science to align with requirements of Software Development
Year 2: Focus on FullStack Development with live Industry Projects | Foundation courses for AI & Minor specialisation
Year 3: Deep dive in 2028 active technologies: AI | LLMs | Cyber Security | Cloud Computing | Blockchain Technology
Year 4: Electives | Capstone project | Full-time Internship

CAREER OPTIONS

Graduates of this program have a vast array of career opportunities awaiting them, with industries increasingly in need of AI and Future Technology expertise.

POTENTIAL CAREER ROLES INCLUDE:

AI Engineer | Data Scientist | Machine Learning Specialist | Cybersecurity Analyst | Blockchain Developer
Cloud Solution Architect | Research Engineer | Technology Consultant

SOME OF THE POTENTIAL RECRUITERS FOR THIS INNOVATIVE CSE PROGRAM WILL BE:

Top Product Companies | Global Capability Centres | Hedge Funds | Research Labs
Web 3.0 firms | Cyber Security | Consulting | Blockchain | Cloud Computing Companies

GRADUATES CAN SECURE INTERNSHIPS AND JOB PLACEMENT OPPORTUNITIES IN TOP COMPANIES SUCH AS:

ACCENTURE | AMAZON | BANK OF AMERICA | BARCLAYS | DELOITTE | FLIPKART | GOLDMAN SACHS | GOOGLE
HCL | INFOSYS | KPMG | MICROSOFT | MORGAN STANLEY | OLA | ORACLE | PWC | PAYPAL | TOWER | WIPRO

4-Year B.E. Computer Science Program

with specialisation in

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

in academic collaboration with

Microsoft

B.E. in Computer Science Engineering with a Specialisation in Artificial Intelligence (AI) and Machine Learning (ML) is an advanced, industry-driven program designed to equip students with the knowledge, skills, and practical experience necessary to excel in the world of AI and ML. Offered in collaboration with Microsoft, this program combines the academic rigour of Computer Science Engineering with the latest developments in AI and ML, delivered using cutting-edge tools, platforms, and insights from one of the world's leading technology companies.

PROGRAM HIGHLIGHTS

- **Industry Collaboration with Microsoft:**
  Students gain access to world-class tools and resources, including Microsoft Azure's cloud platform, Azure Machine Learning, and Microsoft's AI development ecosystem, ensuring hands-on experience with industry-standard platforms.
- **Comprehensive Curriculum:**
  The program covers foundational computer science principles and advanced AI & ML topics, including:
  Core Concepts:
  Data Structures, Algorithms, Programming (Python, Java, C++), Computer Networks, OS, DBMS, Cloud Computing, and Cybersecurity.
  AI & ML Topics:
  Machine Learning (Supervised, Unsupervised, Reinforcement Learning), Deep Learning (CNN, RNN, GANs), NLP (Speech Recognition, Sentiment Analysis), AI in Robotics, Big Data Analytics, and AI Ethics.
- **Hands-on Training with Microsoft Technologies:**
  Students work directly with tools like Azure AI, Microsoft Cognitive Services, and Azure Databricks, gaining practical expertise in building, deploying, and scaling AI solutions.
- **Real-world Projects & Internships:**
  Engage in industry-relevant projects and internships with Microsoft and other top tech companies, applying knowledge to solve real-world problems in sectors like healthcare, finance, and entertainment.
- **Microsoft Certification:**
  Earn certifications in AI and Cloud Technologies, showcasing expertise and enhancing employability.
- **Research and Innovation:**
  Explore cutting-edge topics through access to Microsoft's research ecosystem, collaborate on projects, and contribute to next-gen AI solutions.
- **Industry-Ready Graduates:**
  The program equips graduates with theoretical knowledge, practical skills, and industry experience for careers as AI Engineers, Data Scientists, Cloud Architects, and more.

CAREER OPTIONS

Graduates of the B.E. in Computer Science Engineering with Specialisation in AI and ML will be uniquely positioned to lead the AI revolution across multiple industries.

POTENTIAL CAREER PATHS INCLUDE:

AI and ML Engineers | Data Scientists and Data Analysts | Cloud Computing Specialists | Robotics Engineers
Software Engineers specialising in AI and ML | AI Consultants in enterprise solutions.

COMPUTER SCIENCE & ENGINEERING

In the first 2 years of the Computer Science Program, students will study the basic foundations of Computer Science & Engineering. In the 3rd year, they can choose from specialisations such as:

Artificial Intelligence & Future Technologies | Artificial Intelligence & Machine Learning
Full Stack Development | Cloud Computing & Virtualisation Technology | Data Science & Analytics
Cyber Security | Game Design & Technology | iOS Student Developer Program

4-Year Bachelor of Engineering

COMPUTER SCIENCE & ENGINEERING

The fundamental objective of Computer Science Engineering at Chitkara University is to provide our students with an opportunity to develop a firm foundation in Mathematics, Science and Design methodology of computing systems. Our course curriculum, which covers design, implementation and management of information system, of both hardware and software, has been designed keeping in mind a holistic learning approach, where students are equipped to apply their knowledge and skillset to 'real time' scenarios in the field of Computer Science Engineering.

LEARNING OUTCOMES

- Design software or digital hardware system, component or process to meet targets within realistic constraints, such as economic, environmental, social, political, ethical, health & safety, manufacturability and sustainability.
- Gain knowledge of probability and statistics, including applications for Computer Science & Engineering.
- Gain knowledge of Mathematics through Differential and Integral Calculus, Basic Science, Computer Science and Engineering Sciences.
- Gain knowledge of advanced Mathematics, including Linear Algebra, Numerical Computing Methods for Engineering and Discrete Mathematics.
- Gain knowledge of Algorithms and Data Structures.
- Apply design and development principles in the construction of software systems of varying complexity.
- Understand concept of programming languages.
- Learn computer organisation and architecture.

Your undergraduate degree in Computer Science is designed for flexibility and will provide you with ever-increasing opportunities to solve problems through computing. You might create your own start-up or work with one of the well-established powerhouses of the software industry. Chitkara University professors work closely with the top companies in the industry, so you'll have a chance to work together with individuals and groups that are changing the IT world.

Additionally you will be able to work side by side with some of the top minds in the business. Your professors are not only experts in the computing field, but they are terrific mentors and will help you find the best application of your talents and interests. In addition, you will be getting a solid liberal arts education that will enrich your technical and scientific training and help you to become a better problem solver, team member and manager.

CAREER OPTIONS

Blue chip companies including Google, Microsoft, Amazon, Infosys and Wipro among others have been recruiting our Computer Science Engineering graduates since the inception of the program.

Some roles for which our graduates get hired include:

- Developers and Specialists in High-end Services and IT-product companies
- Development Engineers, Technical Leaders and Managers
- Consultants, Solution Developers and Entrepreneurs
- Computing Specialists in Research Labs and Tech Providers
- System / Network Performance Analysts

FULL STACK DEVELOPMENT

4-Year B.E. Computer Science Program

with specialisation in

FULL STACK DEVELOPMENT

Our specialisation in Full Stack Engineering is designed for students aiming to begin their careers in the IT industry by mastering a full stack of multiple technologies. The program builds the ability to architect high-impact solutions, envision and design innovative products, solve complex problems and work effectively across cross-functional teams. It develops strong skills in high-demand areas such as SDLC, application development for web, mobile and cloud and DevOps.

SOME IMPORTANT COMPONENTS OF THIS COURSE WILL BE

- **Overview of Full Stack Engineering**
  Overview of the modern application landscape; Typical structure of an end-to-end application: components and connections; Design considerations and implementation choices; Case study for each of the topics discussed.
- **Web Development**
  Components of front-end web application development: User interfaces, rendering, Document Object Model Event and State handling; Languages/tools such as HTML, CSS, JavaScript, AJAX; Web Apps Development frameworks; Components of back-end web development: Web Server essentials; Server Side scripting; REST architecture; Database interactions; Integration with code repositories.
- **Mobile Application Development**
  Mobile application building blocks such as the screens (UI), background services; Communication between the application components; Application development using native multi-platform development; Interaction of applications with Internet resources, REST APIs, databases; Unit testing of applications; Integration with code repositories.
- **Cloud Native Development**
  Basics of cloud computing; Different types of services; Virtual machines vs Containers deployment; Characteristics of cloud native application; Elements to build cloud-native applications; Cloud native architecture and micro-services; Design, decomposition of applications to micro-services; Developing micro-services; Interactions with data services and databases.
- **Agile and DevOps**
  Overview of Agile methodology: Scrum, Test driven development, DevOps, Continuous Integration/Continuous Delivery (CI/CD); Code repository: Multi-user, distributed development, version control; Continuous inspection of code quality; Build and build tools; Automated Testing; Integration tools; Implementing CI/CD.
- **Deployment of Micro-services 2**
  Containerising applications by creating container configuration files and build processes; Manage deploying, scaling, and updating applications with micro-services using container management platforms such as Kubernetes; Configure and launch auto-scaling, self-healing clusters; Best practices for container management, when architecting and developing new microservices.
- **Capstone Project**
  Full stack applications demonstrating the UI, server and database components of an end-to-end multi-user application; Usage of one or more well-known development frameworks; Demonstration of scalability and reusability by applying design concepts such as microservices and container-based deployment on the cloud; Demonstration of compliance with principles of agile and CI/CD.

CAREER OPTIONS

Full Stack Developers design complete apps and websites. They work on all facets of development from front-end to back-end, database, debugging and testing. Full Stack Developers are more sought after because of their expertise in multiple technologies. They can handle all aspects of development and it can result in a more seamlessly created product.


CHITKARA
UNIVERSITY

4-Year B.E. Computer Science Program

with specialisation in

CLOUD COMPUTING & VIRTUALISATION TECHNOLOGY

in academic collaboration with

aws

Chitkara University has designed the curriculum under the guidance of AWS Educate, ensuring a strong focus on Cloud Computing and industry alignment from Year 1. This approach equips students with the skills and knowledge needed to build successful careers in the growing fields of Cloud Computing and Virtualisation.

The proposed specialisation will prepare students to understand the emerging technologies of Cloud Computing & Virtualisation, their principles, modeling, analysis, design, deployment and industry-oriented applications. All major solution architectures and enabling technologies will be covered under this program.

The curriculum lays focus on introduction to Cloud Computing and its techniques, issues and services that lead to design and development of a simple Cloud Service along with basic fundamentals. Also there would be focus on security, standards and applications in Cloud, including Cloud Security challenges, software as a service security and its common standards.

This program has been designed keeping the below points in consideration:

- **Technology Skills:** Apply current technical tools and methodologies to create cloud solutions.
- **System Specifications:** Design secure cloud information systems.
- **Technology Analysis:** Evaluate cloud computing trends, practices, and products.
- **Cloud Analysis:** Evaluate the potential impact of cloud-based information systems on business processes.
- **Project Management:** Apply project management practices, tools, and methods to cloud solutions.
- **Professional Development:** Recognise the ethical considerations for IT professionals locally and globally.

COLLABORATION WITH AWS EDUCATE

Chitkara University has collaborated with AWS Educate so that our students can access AWS Certifications and start their career in Cloud Computing & Virtualisation. Some of the topics covered under these certifications are:

- Align curriculum with the cloud computing skills and competencies that employers seek in working professionals.
- Train faculty through professional development sessions in cloud concepts.
- Provide students with resources and training to understand and set goals towards a career path in cloud computing.
- Engage employers with academic institutions to build a pipeline into in-demand cloud career opportunities.

CAREER OPTIONS

All graduating Engineers with specialisation in Cloud Computing & Virtualisation find excellent placements in companies that require specific development skills towards working with Amazon Web Services (AWS), Microsoft Azure or Google Cloud Platform.

Some of the potential roles include:

- Cloud Solution Architects
- Cloud Security Specialist
- Cloud System Administrator
- Cloud Application Development

4-Year B.E. Computer Science Program

with specialisation in

DATA SCIENCE & ANALYTICS

Our 4-Year B.E. Computer Science program with a specialisation in Data Science & Analytics is designed to meet the surging demand for professionals with advanced analytical and technical expertise. Today, industries across finance, healthcare, retail, manufacturing and energy rely heavily on data science to extract actionable insights from vast, complex data sets. Our program equips students to uncover business opportunities, optimise operations, enhance customer experiences and drive strategic decisions that deliver competitive advantage and profitability.

Data Scientists need expertise in the three core areas: Computer Science, Mathematics and Information Management. They also need good critical thinking and effective communication skills. Our inter-disciplinary Engineering curriculum emphasises the core areas of Data Science, including courses in Programming, Math, Statistical Modelling, Machine Learning and Data Management. Students learn all the aspects of the Data Science process from data collection and data understanding to model building and model validation and develop communication and critical thinking skills through real world applications.

The specialisation in Data Analytics equips students with the skills to draw out intelligent analysis of data, which is a crucial component in numerous business applications and supporting business decisions. The program is designed to cater to the ever-changing needs and demands of the industry. Data Analysis experts are among the most sought-after professionals in IT sector with demand for skilled technocrats in that field outpacing other IT jobs by a wide margin.

SOME IMPORTANT COMPONENTS COVERED IN THIS PROGRAM ARE:

- Data Science principles, tools, and techniques to solve “real world” business problems and suggest suitable solution with relevant findings.
- Recognise issues in everyday business; apply Data Science for better understanding of data-driven management decisions to help get an edge over competition.
- Provide insights into leading analytic practices, design and lead iterative learning and development cycles.
- Produce new and creative analytic solutions, which can become a part of any business core deliverables.
- Get insights on how to improve business results by building data-fuelled products.

SOME IMPORTANT SKILL SETS TAUGHT IN THIS SPECIALISATION:

Predictive Analytics | Data Analysis & Management | Data Visualisation | Business Intelligence | SAS Programming Programming tools like R, Python

CAREER OPTIONS

According to NASSCOM, the Data Analytics market will reach $30 billion by the year 2030, growing eightfold from its market worth in 2016. India alone will require over 500,000 Data Scientists, as per various industry insights.

TYPES OF ORGANISATIONS LOOKING FOR DATA ANALYSTS:

- Big IT companies who have an Analytics Practice-Infosys, TCS, Cognizant, Wipro, Oracle
- Analytics KPOs-Genpact, WNS, Evalueserve, HSBC, EXL
- In-house Analytics Units of large corporates-Citibank, Dell, HP, Spencers, Sears
- Core Analytics firms-Brainmatics, Fractal Analytics, Mu Sigma

iOS STUDENT DEVELOPER PROGRAM

4-Year B.E. Computer Science Program

with specialisation in

iOS STUDENT DEVELOPER PROGRAM

POWERED BY APPLE & INFOSYS

Chitkara University has established an iOS Development Centre in collaboration with Apple and Infosys, providing students with unparalleled access to industry-standard tools and technologies. The centre offers a platform for students to develop expertise in app development, focusing on building applications within Apple's ecosystem. This partnership strengthens the program's commitment to ensuring that students gain the necessary skills to succeed in the competitive app economy.

The iOS Student Developer Program focuses on experiential learning, offering students practical experience in app development. Beginning with foundational topics like Swift and UIKit, students build a strong technical base in programming and user interface design. The program emphasises real-world problem-solving, where students work on projects that address challenges such as accessibility, social connectivity, and sustainability. By combining technical expertise with design thinking and a focus on emerging industry trends, the program ensures students graduate with the ability to create innovative, user-friendly, and impactful applications.

KEY COMPONENTS OF THE IOS STUDENT DEVELOPMENT PROGRAM

- **Industry-Aligned Curriculum:** Designed in collaboration with Apple, the curriculum immerses students in the complete product development journey, providing practical expertise and industry-relevant insights.
- **Swift Fundamentals & UI Development:** Master core Swift programming skills and create intuitive user interfaces with UIKit.
- **App Design and Prototyping:** Gain proficiency in design tools such as Keynote and Figma to create engaging, user-focused prototypes.
- **Integration with Apple Technologies:** Work with iOS frameworks and Apple technologies, preparing students to develop complex applications.
- **Design Thinking & Problem-Solving:** Learn to solve real-world problems with creative solutions, applying Apple's design-thinking methodology.
- **Team-Based App Development:** Collaborate in teams to develop apps that tackle social, cultural, and community challenges.

CAREER OPTIONS

As the mobile app development market continues to expand, iOS developers are among the most sought-after professionals in the tech industry. The demand for iOS development skills spans multiple sectors, including healthcare, finance, retail, entertainment, and beyond. Graduates of our iOS Student Developer Program are well-equipped to pursue careers as iOS Developers, Mobile App Designers, and Software Engineers, often commanding starting salaries above the industry average due to the high demand for skilled professionals.

In addition to gaining technical expertise in iOS application development, our graduates emerge with enhanced critical thinking skills, a solid technical foundation, and a deep understanding of mobile user experience. They are positioned to thrive in both startups and established tech companies, where mobile innovation drives success. Graduates also can advance into roles such as Lead iOS Developer, Technical Architect, or Mobile Engineering Manager, as they gain experience and leadership capabilities.

The program prepares graduates for diverse roles in the app development lifecycle, from product management and user interface design to testing and deployment. As businesses continue to adopt mobile-first strategies, iOS developers are central to creating innovative, user-friendly applications that power tomorrow's tech.

CYBER SECURITY

4-Year B.E. Computer Science Program

with specialisation in

CYBER SECURITY

In an era of unprecedented digital transformation, Cybersecurity has become a critical field that safeguards sensitive information, systems, and networks from threats. As the backbone of digital forensic science, Cybersecurity focuses on identifying, preventing, and responding to cyberattacks while ensuring the integrity and confidentiality of data.
Chitkara University's B.E. in Computer Science Engineering with a specialisation in Cybersecurity empowers students to combat cybercrime through an industry-aligned curriculum blending theoretical knowledge with hands-on skills. This program equips future professionals with cutting-edge techniques to address modern Cybersecurity challenges across sectors like banking, healthcare, e-commerce, and government operations.

By integrating core computer science with advanced modules in network security, ethical hacking, and digital forensics, the program prepares students to secure the rapidly evolving digital landscape. Graduates emerge as competent, innovative, and resourceful professionals ready to tackle complex security challenges head-on.

PROGRAM OVERVIEW

This pioneering program develops expertise in Cybersecurity technologies, practices, and strategies. Students gain a critical understanding of cyberattack patterns and how to counter them using advanced tools and techniques. Hands-on learning, industry partnerships, and exposure to real-world case studies equip graduates to create secure systems and safeguard digital environments. The program fosters analytical thinking, problem-solving, and creativity, enabling students to excel in a competitive global landscape. Through interdisciplinary learning and innovative teaching methods, students are empowered to address emerging Cybersecurity challenges while contributing to a safer digital future.

PROGRAM HIGHLIGHTS

- Robust Curriculum: Learn core computer science fundamentals alongside specialised courses in network security, cryptography, and ethical hacking.
- Hands-on Training: Work on live projects and simulated cyberattacks, gaining practical expertise in threat analysis and mitigation.
- State-of-the-Art Labs: Access modern Cybersecurity labs with cutting-edge tools to develop skills in penetration testing and digital forensics.
- Industry Engagement: Collaborate with leading organisations through internships and workshops for professional insights.
- Expert Mentorship: Receive guidance from industry professionals and academic experts, building a strong foundation for a successful career.

SKILLS TAUGHT

The program equips students with capabilities in:
Network Security | Ethical Hacking | Digital Forensics | Malware Analysis | Risk Assessment | Cryptography
Incident Response

CAREER OPTIONS

With India's digital economy expanding, demand for Cybersecurity professionals is projected to exceed 3 million in the near future. Graduates can explore diverse roles such as:
Cybersecurity Specialist | Security Architect | Cyber Operations Analyst | Malware Analyst | System Administrator
Security Software Developer | Incident Response Engineer | Forensic Expert

GAME DESIGN & TECHNOLOGY

4-Year B.E. Computer Science Program

with specialisation in

GAME DESIGN & TECHNOLOGY

The global gaming industry has evolved into a dynamic field that transcends entertainment, influencing sectors like education, healthcare, and simulation. Game Design and Technology merges technology with creativity, combining storytelling, art, and engineering to create immersive worlds and innovative experiences. With advancements in Augmented Reality (AR), Virtual Reality (VR), and real-time rendering, career opportunities in this domain are expanding rapidly. Chitkara University's B.E. in Computer Science Engineering (CSE) with a specialisation in Game Design and Technology equips students with the skills to thrive in this fast-growing field. Its curriculum combines core computer science with game-specific training in graphics, animation, and interactive media, preparing students to succeed in an industry that values both technical proficiency and creative vision.

PROGRAM OVERVIEW

This pioneering program develops students' technical and creative abilities through an interdisciplinary approach. It integrates computer science fundamentals with advanced modules in game development, graphics programming, and interactive design, empowering students to create the games of tomorrow. With a focus on hands-on learning and industry partnerships, the program equips graduates with skills for successful careers in gaming and related fields.

PROGRAM HIGHLIGHTS

- **Industry-Aligned Curriculum:** In-depth training in game development, animation, and real-time graphics, meeting modern industry standards.
- **Hands-on Projects:** Practical experience with AR, VR, and interactive media projects using cutting-edge tools.
- **State-of-the-Art Labs:** Access to advanced VR/AR and game design labs for hands-on innovation.
- **Industry Collaborations:** Real-world projects and internships with leading gaming companies.
- **Expert Mentorship:** Guidance from industry professionals on live projects and preparing students for successful careers.

Skills Taught: Game Programming and Engine Development | 3D Modelling and Animation | Virtual Reality (VR) and Augmented Reality (AR) Development | Artificial Intelligence for Games | UI/UX Design for Interactive Media Physics and Real-Time Rendering

CAREER OPTIONS

Game Designer | Game Developer | Level Designer | Character Designer | Concept Artist | 3D Modeler UI/UX Designer | Environment Artist | Animator | Game Writer | Quality Assurance Tester | Game Producer Game Audio Designer | Cinematic Artist | Augmented Reality Developer | Virtual Reality Developer Simulation Engineer | AI Programmer | Graphics Programmer | Systems Engineer | Game Developer

This program opens doors to diverse careers in game design, development, and interactive media, equipping graduates for success in a variety of roles in the fast-paced gaming industry.

ELECTRONICS & COMMUNICATION ENGINEERING

4-Year Bachelor of Engineering

ELECTRONICS & COMMUNICATION ENGINEERING

The 4-Year Bachelor of Engineering program in Electronics & Communication Engineering at Chitkara University offers a comprehensive and industry-aligned education. It covers fundamental and advanced topics including electronic devices, communication systems, analog and digital transmission, microprocessors, satellite and microwave communication and antennae theory. This program integrates core principles with emerging technologies like embedded systems, VLSI, IoT, and signal processing, ensuring students gain both theoretical knowledge and hands-on experience through laboratories, projects, and internships.

Designed to meet evolving industry needs, the program prepares graduates for rewarding careers in telecommunications, consumer electronics, automotive, healthcare, and beyond, equipping them with strong analytical, design, and problem-solving skills to innovate and lead in a technology-driven world.

LEARNING OUTCOMES

Group design/project work is incorporated into all modules. Final year students are mandated to be a part of a team project, within the University or outside, to facilitate hands-on learning and industry interaction.
Graduates of the program will go on to:

- Design and maintain satellites, which bring TV, Telephone and Internet service into remote and rural regions.
- Create advanced communication facilities to bring people together from all over the world.
- Develop programs for various control and communication systems.

INTRODUCTION TO ROBOTICS & ARTIFICIAL INTELLIGENCE

A unique feature of this program is that it also covers the key concepts of Robotics and Artificial Intelligence (AI), equipping students with the knowledge and skills to design intelligent, automated systems. The industry-led curriculum integrates cutting-edge concepts in robotics, machine learning, and AI-driven decision-making, enabling students to create innovative solutions for real-world challenges. With a focus on automation, efficiency, and adaptability, students are prepared to excel in industries like manufacturing, healthcare, and autonomous systems, driving the future of intelligent technology.

CAREER OPTIONS

There are many opportunities for Electronics & Communication Engineers as they are employed in variety of sectors such as Telecom Industries, Civil Aviation, Development Centers in various states, Defense, NPL, AIR, Posts and Telegraph Department, Railways, Bharat Electronics Limited, DRDO, Telecommunication, Software Engineering/IT, Power Sector, Hardware Manufacturing, Home Appliance and VLSI Design, Television Industry and Research & Development. Some industry roles include:

- Service Engineer
- Technical Director
- Senior Sales Manager
- Customer Support Engineer
- Research & Development Software Engineer
- Software Analyst
- Field Test Engineer
- Network Planning Engineer
- Electronics & Communications Consultant

Our students have obtained prestigious placements at leading companies such as Infosys, nVidia, Texas Instruments, Cadence and ARM, among others.

Specialisation in
Electronics & Communication Engineering
EMBEDDED SYSTEMS & INTERNET OF THINGS (IoT)

Internet of Things (IoT) is revolutionising industries by connecting devices, systems, and people in ways that were unimaginable just a few years ago. With rapid advancements in smart devices, data analytics, and AI-driven solutions, IoT has become the cornerstone of digital transformation across sectors like healthcare, manufacturing, smart cities, and home automation.

With this specialisation you will learn the importance of IoT in the society, the current components of typical IoT devices and trends for the future. Important components and skills taught in this program include:

- IoT design considerations, constraints and interfacing between the physical world and your device will be covered.
- Make design trade-offs between hardware and software.
- Cover key components of networking to ensure that you understand how to connect your device to the Internet.
- Study how various trends have enabled the Internet of Things and how it changes the way design is performed.
- Participate in open house interactions to discuss some of the ramifications that IoT has on the society today.

CAREER OPTIONS

The Internet of Things (IoT) specialisation opens a diverse range of career paths by equipping graduates with the skills to develop, deploy and manage interconnected smart systems. As industries increasingly embrace IoT to enhance automation, data-driven decision-making and real-time communication, there is a growing demand for professionals who understand both hardware and software aspects of IoT technologies. This skill set enables graduates to contribute to innovative solutions across sectors such as healthcare, manufacturing and smart infrastructure.

Potential Roles in IoT include:

- IoT Solution Architect
- IoT System Administrator
- IoT Product Manager
- IoT Network Engineer
- Smart Systems Designer
- IoT Developer
- IoT Consultant
- Industrial IoT Data Scientist
- IoT Embedded Systems Engineer
- IoT Program Manager

Specialisation in
Electronics & Communication Engineering
VLSI DESIGN

The VLSI discipline is for design and verification of electronics systems and circuits. Its applications are found in areas like signal processing, image processing, networks and communication applications.

The Electronics & Communication Engineering program with specialisation in VLSI design aims to provide students with comprehensive knowledge of VLSI Circuits and systems which is core to the electronics chip manufacturing industry. The program emphasises the key aspects of hardware design and development for VLSI applications. Prime focus is laid on areas like VLSI system design, ASIC design, FPGA-based systems design, RF circuit design and SOC based design and verification.

The main objectives of the program are to analyse the electrical and design characteristics of transistors and gates to study the issues and methodologies involved in the integration of these devices into complex high performance systems.

CAREER OPTIONS

With recent and rapid upsurge in areas like hardware, software co-design, architectures for machine intelligence, network on chip, etc., the program is designed to cater to the needs in producing Engineers trained, in both, hardware and software. Apart from a bright scope to pursue higher education and research, students can pursue career opportunities in diverse fields such as Process Industry, Manufacturing Industry, Consumer Electronics, Communication Networks and Automation Industries.

Students can find excellent placements in leading core companies like IBM, Texas Instruments, NXP, Wipro, GE, Motorola, Honeywell, Tata Elxsi, RBEI, TATA, DELPHI, etc.

ELECTRICAL ENGINEERING

4-Year Bachelor of Engineering

ELECTRICAL ENGINEERING

The 4-Year Bachelor of Engineering in Electrical Engineering at Chitkara University is designed for those seeking expertise in generation, transmission, distribution, and efficient utilisation of energy. This future-focused program develops in-demand skills, enabling graduates to tackle real-world challenges such as climate change and the growing need for sustainable, high-quality products. Students gain a deep understanding of electrical and industrial automation, grounded in robust problem-solving abilities and attention to detail. Industry-endorsed learning ensures exposure to the latest innovations, including environment-friendly technologies. With an intensive, integrated curriculum and strong industry connections, graduates are well prepared for rewarding careers across energy, manufacturing and automation sectors, making a meaningful impact as technology leaders and solution providers for a fast-evolving global landscape.

PROGRAM OUTCOMES

This program will equip you for the following skills:

- To apply knowledge and technical expertise in building, analysing, testing, operating and maintaining electrical, instrumentation, control systems and associated green technologies, including relevant industry standards and code of practices.
- Maintenance, repair and production of electrical automation equipment and its systems.
- Procure, inspect and test electrical and electronic engineering materials.
- To select, operate, maintain, test and repair/replace electrical & electro-mechanical automation machinery used in various industrial appliances.
- Enable industrial installation including automation components, programming cum re-programming of logic controllers cum drives, laying cables, earthing, installing motors, drives with their accessories, wiring and testing of control circuits.
- Preparing estimates of different kinds of jobs in domestic, industrial automation in transmission and distribution systems to install, erect and commission the power & automation equipments.

CUTTING EDGE LABORATORIES & FACILITIES

We have world-class labs including:

- Power Systems Research Lab
- Control Systems Lab
- Power Electronics & Drives Lab
- Virtual Instrumentation Lab
- Solar Energy Lab
- Measurement & Instrumentation Lab
- NxP Semiconductor Lab
- Schneider Electric - Centre of Excellence
- Building Automation Lab - Siemens
- Protection & Switchgear Lab
- Digital Simulation Lab
- Analog and Digital Circuits Hardware Lab
- Process Control Lab
- EDC & Device Research Lab
- Electrical Machines Lab
- Q-Max Technology Lab
- Industrial Automation Lab - Fuji Electric

4-Year Bachelor of Engineering

ELECTRICAL ENGINEERING

WITH MINOR IN COMPUTER SCIENCE ENGINEERING

In response to the ever-evolving demands of the engineering industry, our 4-Year Bachelor of Engineering program in Electrical Engineering now offers an enticing opportunity for students to broaden their skillset. We recognise that the modern job market increasingly values engineers with proficiency in computer science and coding. To address this demand, we have introduced a unique option for students: a Minor in Computer Science Engineering, which can be pursued starting from the 2nd Semester. This minor program is carefully designed to complement the core Electrical Engineering curriculum. It includes a range of fundamental Computer Science courses that will not only equip students with coding skills but also provide a solid foundation in the digital realm.

The courses in the Minor in Computer Science Engineering include:

- Object Oriented Programming
- Data Structures and Algorithms
- Computer Networks
- Data Base and Information Systems
- Design and Analysis of Algorithms
- Web Technology

Alongside these fundamental courses, students have the opportunity to explore cutting-edge electives in emerging technology areas including courses in Artificial Intelligence, Data Science, and Cybersecurity. By choosing from these specialised fields, students can adapt their education to meet the unique demands of their career aspirations. One of the significant advantages of pursuing a Minor in Computer Science Engineering is the widening scope of employment opportunities it brings. In addition to the core electrical engineering companies, students become eligible for placements in top-tier IT firms. This versatile skillset opens doors to diverse roles and industries, positioning our graduates as highly sought-after professionals in the job market.

CAREER OPPORTUNITIES

Electrical Engineers are in high demand in India. In the recent years, from homes to companies, there is a necessity of electricity to function, offering numerous opportunities to Electrical Engineers. These Engineers can work in Atomic Power Plants, Hydel or Thermal Power Plants. Job opportunities are ample in both Private & Public sectors like Railways, Civil Aviation, Electricity Board and Utility Companies, Electrical Design and Consultancy Firms and all types of manufacturing industries.

Companies like ABB, Bajaj International Private Ltd, Crompton Greaves Limited, Siemens Ltd, Reliance Power Ltd, Oil and Natural Gas Corporation (ONGC), Bharat Heavy Electricals Limited (BHEL), Steel Authority of India Limited (SAIL), Coal India Limited (CIL), Power Grid Corporation of India Limited (PGCIL), Centre for Electronics Design & Technology and Wipro Lighting are the biggest employers hiring Electrical Engineers.

Career opportunities abound across industries as Specialists, Technologists, Engineers or Managers in:
Factory Automation | Power Engineering | Energy Management | Facility Management
Operations Management | Sustainable Design & Solutions | Entrepreneurship

CAMPUS RECRUITMENT PARTNERS

Given below are some of the blue chip companies who hire our Electrical Engineering students:

ABB | adani | BLUE STAR | DLF BUILDING INDIA | EVEREADY | Fuji Electric
HYUNDAI | HYUNDAI | JSW | KONE | L&T | MITSUBISHI ELECTRIC
PIAGGIO | Reliance Industries Limited | Schneider Electric | SECURE | SMS group | wipro

4-Year Bachelor of Engineering

MECHANICAL ENGINEERING

The 4-Year Bachelor of Engineering program in Mechanical Engineering at Chitkara University is a comprehensive course designed to build a strong foundation in core engineering principles while developing advanced skills in design, analysis, and innovation. Covering essential subjects such as thermodynamics, fluid mechanics, materials science, dynamics and computer-aided design, the program combines theoretical learning with practical exposure through labs, industry internships and competitive events. Emphasising emerging technologies and sustainability, it prepares students for diverse sectors including automotive, robotics, aerospace and energy. Ideal for aspiring engineers, this program equips graduates to solve complex real-world problems and become leaders driving technological progress nationally and globally.

PROGRAM OVERVIEW

The curriculum is a comprehensive blend of theoretical and practical learning, spanning essential disciplines such as thermodynamics, fluid mechanics, materials science, robotics, and energy systems. It is carefully crafted to meet the ever-growing demand for professionals who can design efficient systems, solve complex problems, and implement cutting-edge technologies. Students are trained to innovate, design, and analyse systems with an emphasis on modern tools, sustainable technologies, and eco-conscious solutions. Industry-aligned internships and state-of-the-art laboratories further enhance their learning experience.

Beyond core topics, the program introduces emerging fields like automation, artificial intelligence in mechanical systems, and additive manufacturing, equipping students to stay ahead in a rapidly evolving technological landscape. Faculty members, acclaimed for their research and teaching expertise, ensure students receive mentorship that aligns with global standards.

LEARNING OUTCOMES

Mechanical Engineers research, design, develop, build, and test mechanical and thermal devices, including tools, engines, and machines. As a student of Mechanical Engineering, you will have the ability to:

- Apply knowledge of Mathematics, Science and Engineering.
- Design and conduct experiments as well as analyse and interpret data.
- Design a system, component or process to meet desired needs within constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.
- Function in multi-disciplinary teams, identify, formulate and solve problems.
- Understand the impact of Engineering solutions in a global, economic, environmental and societal context.
- Use techniques, skills and modern Engineering tools necessary for Engineering practice.

CAREER OPPORTUNITIES

There is tremendous scope for Mechanical Engineers in industries including Aerospace, Automobile, Biomedical, Chemical, Computers, Electronics, Fossil and Nuclear Power, Manufacturing, Pharmaceutical, Robotics and Textiles. Further, the scope of employment extends into areas of research & development, design, testing and evaluation, manufacturing, operations & maintenance, marketing, sales and administration. Public sector units like Railways, ONGC, Indian Oil, ISRO, SAIL, NTPC, DDRO and IAF.

Leading Mechanical and Automobile companies visit the campus regularly for placement. Our Engineers have successfully obtained placements at leading companies such as Infosys, Godrej, Escort, L&T, Wipro, ISMT, Mahindra & Mahindra, JCB, etc.

4-Year Bachelor of Engineering

MECHANICAL ENGINEERING

WITH MINOR IN COMPUTER SCIENCE ENGINEERING

In recognition of the burgeoning industry demand for Mechanical Engineers equipped with essential coding skills, we are excited to offer students the unique opportunity to select Computer Science Engineering as a minor field of study starting from the second semester of their program. This forward-thinking initiative not only enhances the students' mechanical engineering foundation but also opens a world of digital possibilities. In addition to the mandatory courses in Mechanical Engineering, students will embark on an enriching journey through the following credit courses:

- Computer Science Engineering
- Object Oriented Programming
- Data Structures and Algorithms
- Computer Networks
- Data Base and Information Systems
- Design and Analysis of Algorithms
- Web Technology

In addition to the foundational courses in Computer Engineering, students will have the privilege of choosing from a diverse array of electives in cutting-edge technology domains such as Artificial Intelligence, Data Science, and Cybersecurity. This expansive minor in Computer Science Engineering opens doors to a world of opportunities, offering access to placements not only in esteemed IT companies but also in core enterprises seeking Mechanical Engineers with a digital edge. By embracing this minor, students will be poised for success in both the mechanical and information technology sectors, combining the best of both worlds. This unique blend of skills and knowledge ensures that graduates are well-prepared to navigate the dynamic landscape of modern industry and emerge as sought-after professionals at the intersection of mechanical engineering and computer science.

CAREER OPPORTUNITIES

Career opportunities in Mechanical Engineering are aplenty, with every mechanical manufacturer in rapid expansion mode and hiring engineers to meet their ever-growing demand. Our graduates can thus look forward to an exciting career path with the top Mechanical Engineering companies across the globe.

YOU CAN EXPLORE CAREER OPPORTUNITIES AS:

Mining Engineer | Water Engineer | Aerospace Engineer | Mechanical Engineer | Automotive Engineer
Maintenance Engineer | CAD Technician

CAMPUS RECRUITMENT PARTNERS

Given below are some of the blue chip companies who hire our Mechanical Engineering students:

adani	AMARA RAJA	Ashok Leyland	apollo	ASHOK LEYLAND	BLUE STAR
DAIKIN	Danfoss	HONDA	HYUNDAI	HYUNDAI	JCB
JKTYRE	JSW	KALPA-TARU	Kirloskar	mahindra Rise	MARUTI SUZUKI Way of Life!
MG	MITSUBISHI ELECTRIC	MRF	NEROLAC	NISSAN	oorja
PIAGGIO	Reliance Industries Limited	SIEMENS	SMS group	SONALIKA	UPL


Eco-marathon
CHITKARA UNIVERSITY
503
TEAM LAKSHYA

4-Year Bachelor of Engineering

AUTOMOBILE ENGINEERING

in collaboration with Automotive Research Association of India

ARAI®
Progress through Research

with specialisation in

EV & HEV

Chitkara University has collaborated with Automotive Research Association of India (ARAI) to offer 4-Year Engineering in Automobile Engineering in view of Government of India incentivising the adoption of EV and HEV and the resultant need for professionals who can handle these emerging technologies. The collaboration brings in Industry's best curriculum, superior program delivery, wholesome hands-on experience with in-depth knowledge of industry best practices & top notch technical know-how, seamlessly transferred to students by the best minds from ARAI.

ABOUT ARAI

Automobile Research Association of India (ARAI), established in 1966, is the leading automotive R&D organisation of the country set up by the Automobile Industry with the Government of India. ARAI is an autonomous body affiliated to the Ministry of Heavy Industries and Public Enterprises, Government of India. The Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India, has recognised ARAI as a Scientific and Industrial Research Organisation (SIRO). Further, ARAI is the prime Testing and Certification Agency notified by Government of India under Rule 126 of Central Motor Vehicle Rules, 1989. ARAI has been playing vital roles in the progress of Indian automobile sector for five decades.

PROGRAM OVERVIEW

The automotive industry is changing rapidly and moving towards electrical vehicles which are set to completely dominate the market in the next two decades. This program has been designed with these technological developments in mind with as much emphasis on electrical side of vehicle design as the mechanical side so graduates are well equipped for the automotive industry of the future. It will provide students with the knowledge and skills required in the modern automotive industry, with a focus on EV and HEV.

PROGRAM STRUCTURE

Students will get to learn the fundamentals of EV and HEV in the first two and a half years at Chitkara University after which students would go to ARAI Academy, Pune to study latest technologies and get hands-on practical exposure in the next one and a half years. The last two semesters will be totally devoted to project work, which shall be carried out either in the Automobile Industry or at ARAI Academy.

PROGRAM CONTENT

Our Automobile Engineering courses are taught through a combination of lectures, tutorials, group work and workshops. In the first year, you will study modules that are all common between electrical and mechanical engineering students. This is to ensure all underlying requisite knowledge for modern automotive engineering is covered. Finally, you study elements of management, business and professional practice. This will develop your initiative, and effective communication and interpersonal skills, to achieve the high level of technical leadership required in a modern engineering environment.

SOME OF THE COURSES COVERED IN THIS HIGHLY SPECIALISED PROGRAM ARE:

Automobile Manufacturing | Automobile Electrical and Electronics | EV Thermal Systems | Automobile Mechatronics | Electric and Hybrid Vehicles | Energy Storage Systems for EV | Artificial Intelligence Battery | Management System | Vehicle Dynamics and Aerodynamics | Modelling and Simulation of EHV Testing and Certification of Vehicles

CAREER OPPORTUNITIES

Manufacturing Engineer | Vehicle Testing & Homologation Engineer | Hybrid & EV Design Engineer Research & Product Development Engineer | Vendor Development & Technical Assistance Engineer Supply Chain & Logistics Engineer

MECHANICAL & SMART MANUFACTURING

4-Year Bachelor of Engineering

MECHANICAL & SMART MANUFACTURING

The B.E. in Mechanical and Smart Manufacturing is a cutting-edge, four-year undergraduate program designed to equip students with strong foundations in Mechanical Engineering integrated with advanced Industry 4.0 technologies. Students learn core mechanical principles alongside smart manufacturing processes such as automation, robotics, Internet of Things (IoT), Artificial Intelligence (AI), and data analytics. The curriculum combines theoretical knowledge with extensive hands-on experience through labs, simulations, and industrial internships, preparing graduates to design, operate, and optimise modern manufacturing systems.

This program emphasises experiential learning with real-world exposure to smart factory setups, intelligent systems, and smart production technologies. Graduates gain expertise in both conventional manufacturing science and emerging technologies that define the future of industrial production and engineering innovation.

PROGRAM HIGHLIGHTS

- Comprehensive coverage of Mechanical Engineering fundamentals coupled with smart manufacturing techniques including Robotics, IoT integration, AI and Automation
- Hands-on training with industry-relevant software tools such as Solidworks, Ansys, and CNC programming
- Exposure to advanced manufacturing technologies like additive manufacturing (3D printing), cyber-physical systems, and smart factory concepts
- Industry internships and live projects with leading companies providing practical insights and hands-on learning
- Flexible curriculum incorporating Industry 4.0 advancements such as digital twins, data analytics, and machine learning applications
- Strong focus on problem-solving, critical thinking, and innovation in smart manufacturing environments
- Opportunities for interdisciplinary learning through collaboration with Electronics, Computer Science, and Automation specialisations

EMPLOYMENT LANDSCAPE

The employment outlook for graduates of Mechanical and Smart Manufacturing programs is robust and expanding rapidly. With global and Indian manufacturing sectors embracing automation and digital transformation, demand for engineers skilled in smart manufacturing technologies is soaring. Industry 4.0 adoption drives a growing need for professionals who can design, implement, and maintain intelligent manufacturing systems to enhance productivity, efficiency, and product quality.
Manufacturing remains the largest employer, supported by government initiatives like ‘Make in India’ and skill development programs boosting local industry competitiveness. Emerging sectors such as robotics, electric vehicles, aerospace, and energy efficiency further broaden job opportunities for graduates trained in both mechanical fundamentals and smart technologies.

CAREER OPTIONS

This comprehensive program prepares graduates to successfully navigate the evolving industrial landscape, contribute to innovation, and excel in dynamic engineering careers fuelled by smart manufacturing. Graduates can also pursue entrepreneurship, launching startups in manufacturing automation, industrial IoT, or green tech sectors, or opt for higher studies in mechanical engineering, manufacturing, robotics, or AI-based manufacturing systems.

POTENTIAL ROLES INCLUDE

Design Engineer | Robotics and Automation Engineer | Manufacturing Engineer
R&D Engineer | Quality Control Engineer | Production Engineer | Aerospace and Automotive Engineer
Data Analyst | Product Manager

MECHATRONICS ENGINEERING

4-Year Bachelor of Engineering

MECHATRONICS ENGINEERING

Mechatronics Engineers typically act as the link between Technicians and Engineers and work from conception to the completion of the project. They also assist with design, development and testing of electrical or electronic equipment when mechanical equipment includes electrical or electronics components.

LEARNING OUTCOMES

Mechatronics Engineers work in all aspects of development of the smart machine – from design and testing right through to manufacture. This could be in industries like robotics, medical and assistive technology, human-machine interaction, manufacturing, unmanned aerial and ground vehicles and education.

As a Mechatronics Engineer, students can learn to:

- Develop new solutions to industrial problems using Mechanical & Electronic processes & Computer Technology.
- Design and build completely new products by integrating various technologies, for example, developing robotic vehicles for underwater exploration.
- Build and test factory production lines introducing automation to improve existing processes.
- Apply Mechatronics or Automated solutions to the transfer of material, components or finished goods.

ACADEMIC FRAMEWORK

The core focus areas of the program includes:

- Basics of Mechanical Engineering, Electronics Engineering, Computer Science, Engineering Systems and Control Engineering.
- Introduction to Robotics & Artificial Intelligence, along with Machine Vision.
- Study of Fluid Power Technology - Hydraulics & Pneumatics - and its technology developments.
- Study of Computer Hardware and Software.
- Study properties and applications of Materials Science.
- Analog/Digital Electronics and Communications.

INTRODUCTION TO ROBOTICS & ARTIFICIAL INTELLIGENCE

A unique feature of this program is that it also covers the key concepts of Robotics and Artificial Intelligence (AI), equipping students with the knowledge and skills to design intelligent, automated systems. The industry-led curriculum integrates cutting-edge concepts in robotics, machine learning, and AI-driven decision-making, enabling students to create innovative solutions for real-world challenges. With a focus on automation, efficiency, and adaptability, students are prepared to excel in industries like manufacturing, healthcare, and autonomous systems, driving the future of intelligent technology.

CAREER OPPORTUNITIES

Mechatronics Engineers can find a place in global enterprises developing futuristic vehicles, defence technology and revolutionising consumer products. They may also work in smaller innovative 'high tech' companies supplying software and equipment and they could be product developers, work in manufacturing, or mining or defence industries, and in government and industry research groups.

SOME OF THE FIELDS THESE GRADUATES COULD EXPLORE, INCLUDE:

Automation & Robotics | Machine Vision | Design of Subsystems for Automotive Engineering
Sensing & Control Systems | Expert Systems & Artificial Intelligence | Industrial Electronics
Consumer Products | Medical Mechatronics | Medical Imaging Systems | Structural Dynamic Systems
Computer Integrated Manufacturing Systems | Diagnostic & Reliability Techniques

CIVIL ENGINEERING WITH AI & ML

4-Year Bachelor of Engineering

CIVIL ENGINEERING

with specialisation in Artificial Intelligence & Machine Learning

in academic collaboration with

L&T EduTech

At Chitkara University, our B.E. in Civil Engineering with a specialisation in AI & ML equips students with the expertise to supervise, design, and manage cutting-edge infrastructure projects while harnessing the transformative power of Artificial Intelligence. Graduates are prepared for roles like construction managers, design consultants and project engineers, backed by a curriculum that integrates traditional civil engineering principles with the latest AI-driven advancements. Students gain hands-on experience with state-of-the-art tools and technologies, ensuring they are adept at managing large-scale projects efficiently, aligning with schedules and specifications.

PROGRAM OVERVIEW

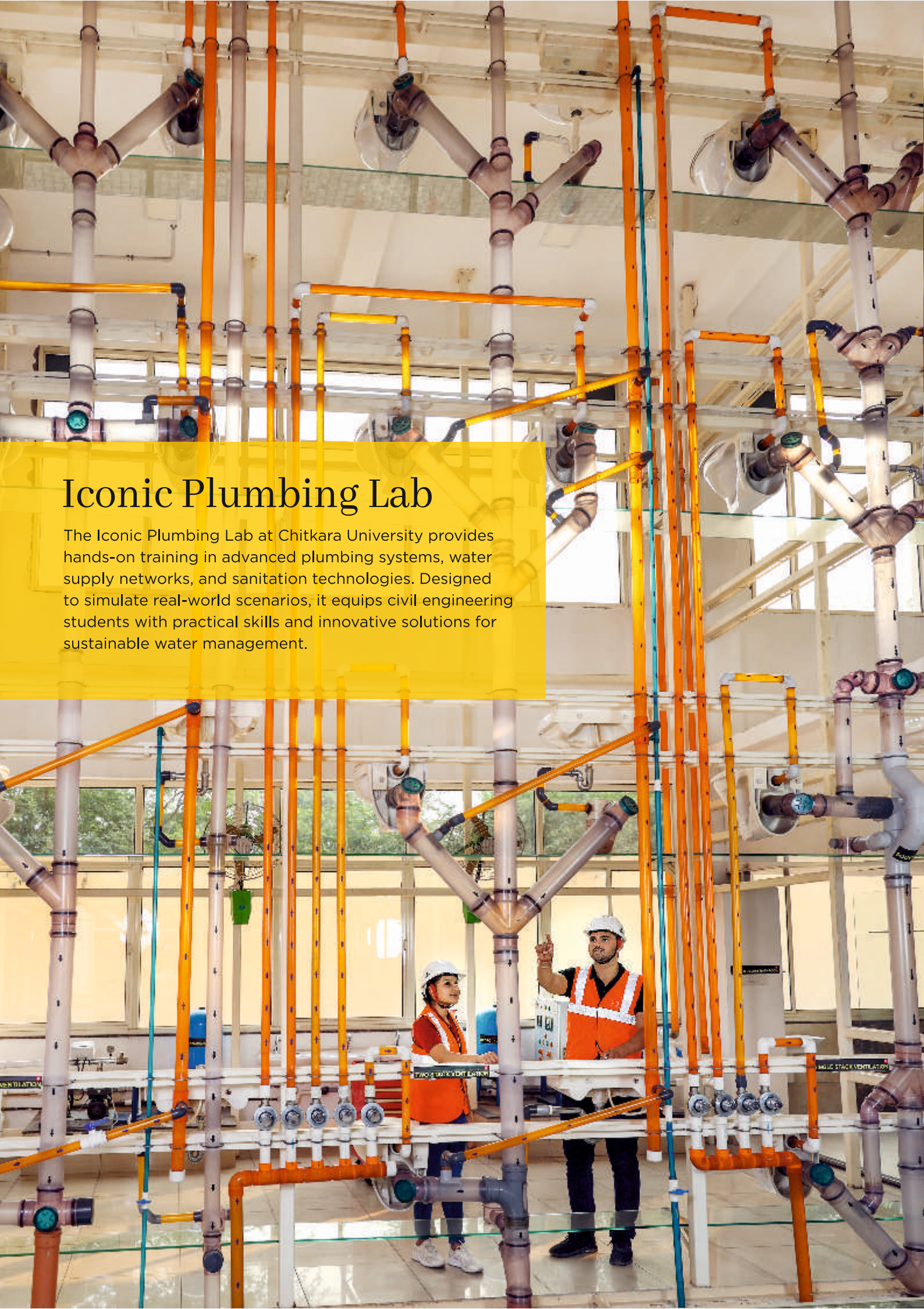
The program blends foundational Civil Engineering knowledge with specialised AI & ML applications. Students master AI tools like TensorFlow and OpenCV and programming languages such as Python and MATLAB while exploring key areas like design optimisation, risk control, and construction management. The curriculum emphasises Building Information Modelling (BIM), including Revit Architecture and Structure, BIM Management, and integration with Virtual Reality. Real-time projects provide a comprehensive learning environment, ensuring students are job-ready.

PROGRAM STRUCTURE

Chitkara University's Civil Engineering program, in partnership with L&T EduTech, focuses on modern construction materials, advanced techniques, and AI-powered management practices. Students develop skills to design structures, optimise processes, and manage projects effectively. Structural engineering courses cover the design of buildings and bridges, considering factors like wind, earthquakes, and loads.

KEY COURSES INCLUDE:

- Fundamentals of Science, Mathematics, Engineering Graphics, and Computing techniques.
- Principles of solid, fluid, and soil mechanics.
- Transportation and Environmental Engineering.
- Advanced design and analysis of steel and concrete structures.
- Special electives like Modern Structural Materials, Construction Management, Safety, and Quality Control.
- Capstone projects in AI-driven construction and management.



Iconic Plumbing Lab

The Iconic Plumbing Lab at Chitkara University provides hands-on training in advanced plumbing systems, water supply networks, and sanitation technologies. Designed to simulate real-world scenarios, it equips civil engineering students with practical skills and innovative solutions for sustainable water management.

CAREERS OPPORTUNITIES

Graduates from this program emerge as industry-ready professionals, equipped to excel in both private and public sectors, government departments, and research or academic institutions. Specialisation in AI & ML opens doors to high-demand roles, including:

Planning Engineer | Site Engineer | Quality Control Engineer | Project Manager

Chitkara University's emphasis on rigorous training and experiential learning ensures graduates not only meet but exceed employer expectations in this rapidly evolving field.

CAMPUS RECRUITMENT PARTNERS

Some of the major companies that visited Chitkara University and hired our graduates:

CHITKARA UNIVERSITY

SCHOOL OF MARITIME STUDIES

3-Year Bachelor of Science

NAUTICAL SCIENCES

Approved by
Directorate General of Shipping,
Government of India. (MTI NO. 106025)

Nautical Studies includes not only navigation and cargo operations but also the maintenance of ships and managing all legal and commercial matters related to the shipping industry. Deck officers ensure safety measures, including lifesaving and firefighting operations, while playing a crucial role in navigating vessels across oceans and along coastlines. In ports, they supervise and oversee all cargo operations, ensuring efficient and safe handling. The program also covers maritime laws, environmental regulations, and modern shipping technologies, preparing students for leadership roles in the dynamic and growing global maritime industry.

A Deck Officer on board a ship needs to function independently at sea for navigational watches and at port keeping cargo watches. They must also demonstrate additional skills such as fire fighting and damage control, ship manoeuvring and the ability to carry out rescue operations in an emergency. Further, ships are required to remain in operation 24 hours a day, 365 days a year. All this makes the Deck Officer's job extremely challenging and demanding.

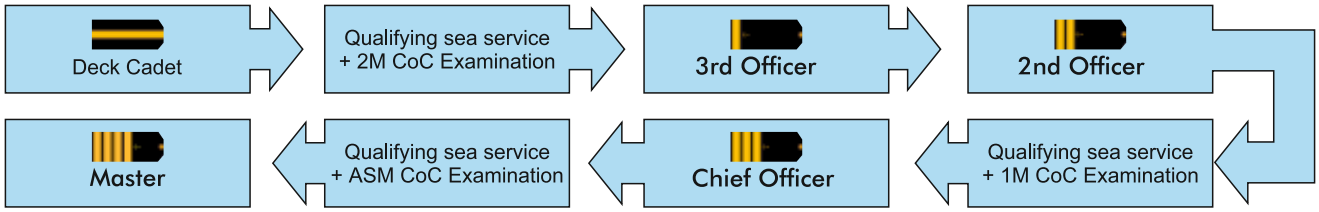
The Captain of the ship is the ultimate authority and responsible for maintaining the administration management onboard. They are also the custodian of the cargo which is carried on their ship, thus making them liable for all legal and commercial matters.

CAREER OPPORTUNITIES

Opportunity to work as a Deck Cadet on Merchant Ship of Indian or Foreign companies after completing the course. On completion of the stipulated periods on the ship and passing Competency Examinations conducted by Directorate General of Shipping, Ministry of Shipping, Government of India - Deck Cadet eventually becomes eligible to be posted as Captain of the Ship.

- As Deck Cadet - 3 Years Degree (Nautical Science) + Five Basic STCW modular courses
- Third Officer / Second Officer - Specified sea service as a Deck Cadet + 2nd Mate (FG) Certification
- Chief Officer - Specified sea service + First Mate (FG) course + Modular Courses + 1st Mate (FG) Certification
- Master (Captain) – Specified sea service + 1 month ASM Course + Master (FG) certification.

FLOW CHART DEPICTING PROGRESS AFTER OBTAINING B.SC NAUTICAL SCIENCE




CHITKARA
HCL

Bachelor of Computer Applications

3-YEAR BCA

Specialisation in Artificial Intelligence & Machine Learning

Our Bachelor of Computer Applications (BCA) program with a specialisation in Artificial Intelligence (AI) and Machine Learning (ML) is crafted for aspiring tech professionals eager to shape the future of innovation. This program provides a strong foundation in computer science while integrating the latest advancements in AI and ML to prepare students for complex, data-driven challenges. Led by expert faculty, the curriculum combines rigorous academic training with hands-on industry exposure through internships, workshops, and guest lectures from AI innovators. With AI and ML reshaping global sectors like technology, finance, healthcare, and education, this program opens doors to vast career opportunities worldwide.

Chitkara University's Bachelor of Computer Applications (BCA) program offers a comprehensive and industry relevant education in computer science, programming, and information technology. As AI and ML continue to transform industries, professionals skilled in these areas are in high demand. This program sharpens your expertise in programming, algorithms, and data science, preparing you to drive innovation across industries. The core BCA curriculum covers essential topics like programming, database management, software development, and web technologies, providing a solid foundation. This is enhanced by specialised courses in AI and ML, where you will explore neural networks, deep learning, natural language processing, and data mining.

The program also prioritises hands-on learning through lab work, coding challenges, and real-world industry projects. By applying your skills to develop AI-powered solutions and machine learning models, you'll gain the practical experience needed to tackle complex challenges in the tech landscape.

This 3-Year undergraduate program is designed to provide students with both theoretical knowledge and practical experience, ensuring they are equipped to excel in the fast-paced tech industry. The curriculum integrates core computing principles with cutting-edge technologies, preparing students for roles in various domains like Software Development, IT Management, and Cybersecurity.

Students will start by mastering the fundamentals of programming languages, data structures, and database management. The program then advances to more complex topics such as cloud computing, mobile application development, machine learning, and network security. With a curriculum that is both broad and deep, the BCA program prepares students to meet the ever-changing demands of the IT sector. Furthermore, Chitkara University integrates modern technologies like Artificial Intelligence, digital marketing, and web development into the program, ensuring students are ready for both traditional and emerging IT roles.

The program also emphasises the development of critical soft skills, such as leadership, problem-solving, teamwork, and communication, which are crucial for success in the global IT workforce. Students gain valuable exposure to real-world practices through internships, live projects, and direct interaction with industry professionals, all of which ensure they are well-prepared for the challenges of the workplace.

PARTNERSHIP WITH IT INDUSTRY

Marquee companies have developed & deployed IT industry relevant curriculum on emerging technologies for our Computer Application programs, such as:

EMPLOYMENT AREAS

Software Development Companies | Technical Support | System Maintenance | Consultancies
Computers and Related Electronic Equipment Manufacturers|Schools and Colleges
Security and Surveillance Companies | Traffic Light Management | Desktop Publishing
Financial Institutions | Government Agencies | Insurance Providers | Banks


GREAT
PLACEMENTS
GIVE YOUR
FUTURE A
CHITKA
CHITKARA
UNIVERSITY

PROGRAM STRUCTURE

- **Core BCA Curriculum:** Master essential topics such as programming (C++, Python, Java), database management, software engineering, and data structures.
- **AI & Machine Learning Specialisation:** Learn the foundations of AI, machine learning algorithms, deep learning, and how to apply these technologies to various industries like healthcare, finance, and autonomous systems.
- **Data Science & Analytics:** Gain skills in data analysis, pattern recognition, and predictive modelling, with a focus on using large datasets to train machine learning algorithms.
- **Capstone Projects:** Apply your skills to real-world problems by working on AI and ML projects in collaboration with industry partners, preparing you for a smooth transition into the workforce.
- **Industry-Ready Tools:** Get hands-on experience with the latest AI and ML tools such as TensorFlow, Keras, and Python libraries, as well as cloud-based platforms for AI development.

CAREER OPPORTUNITIES

Graduates are well-prepared for roles in AI and ML, with opportunities in sectors such as healthcare, finance, technology, and retail. Possible career paths include:

AI Engineer | Machine Learning Engineer | Data Scientist | Software Developer | Cloud Solutions Architect
Automation Specialist | Database Administrator | Cybersecurity Analyst | Systems Administrator

CAMPUS RECRUITERS FOR BCA & MCA GRADUATES

Some of the major companies that visited Chitkara University and hired our graduates:

amdocs | Capgemini | cognizant | DELL | Deloitte.
HCL | hp | Infosys | Mindtree Welcome to possible | NIIT
Panasonic | TATA CONSULTANCY SERVICES | Tech Mahindra | wipro | WNS

3-YEAR BCA

Bachelor of Computer Applications

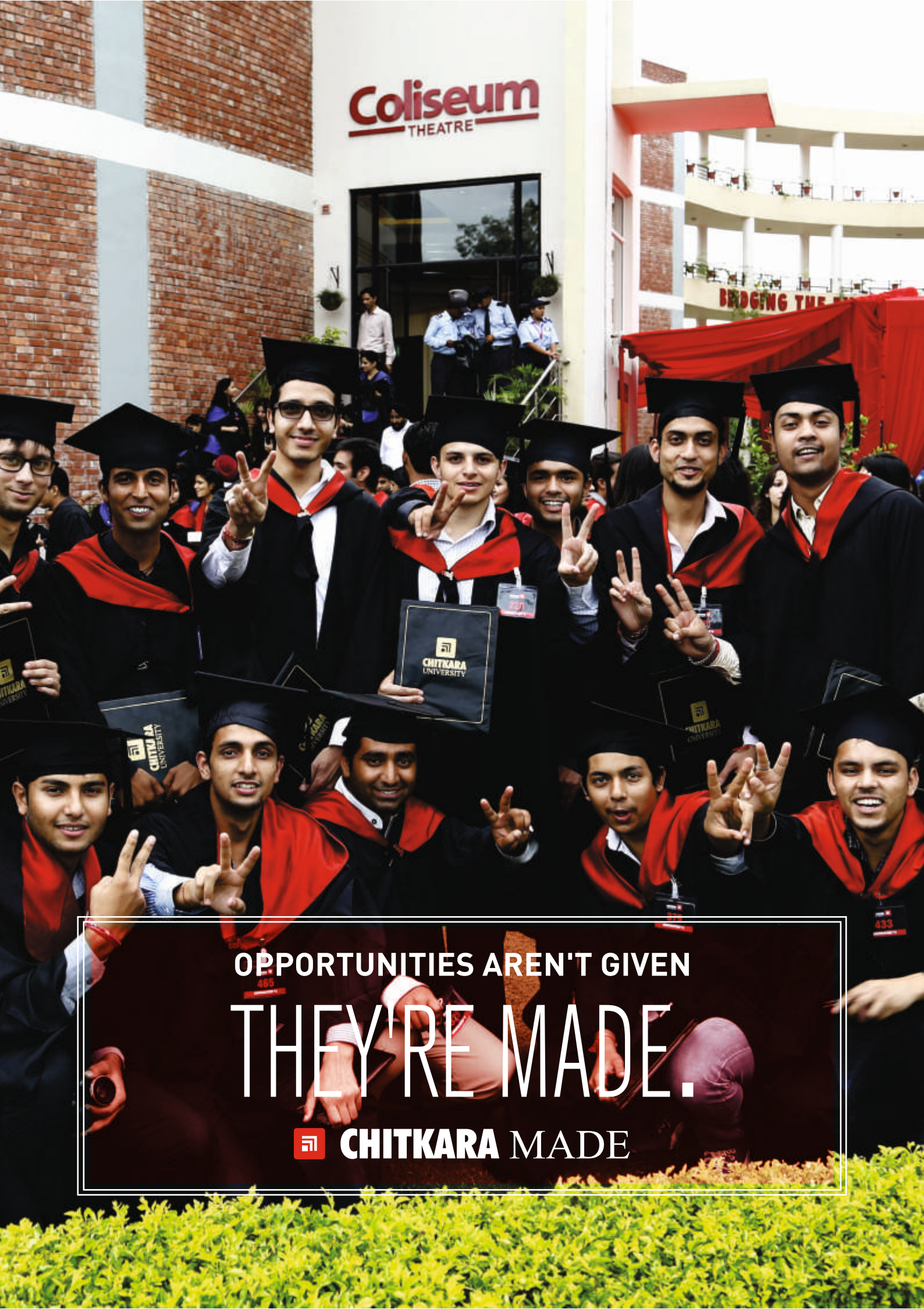
This Program is offered at both Punjab and Himachal Pradesh campuses

The Bachelor of Computer Applications (BCA) is a three-year undergraduate program designed for students aspiring to build a career in the field of information technology and computer applications. It provides a comprehensive understanding of computer science fundamentals, programming, and software development, making it a popular choice among tech enthusiasts.

The program focuses on teaching essential programming languages like C, C++, Java, Python, and web development technologies such as HTML, CSS, and JavaScript. It also covers advanced topics, including data structures, algorithms, database management systems (DBMS), computer networks, operating systems, and software engineering. Many universities integrate emerging technologies like artificial intelligence, machine learning, cloud computing, and cybersecurity into the curriculum to keep pace with industry trends.

BCA emphasises both theoretical knowledge and practical skills. Students undertake hands-on projects, practical labs, and internships to gain industry exposure and apply their learning in real-world scenarios. Mathematics and analytical subjects like discrete mathematics and statistics are also included to strengthen problem-solving skills.

Graduates of the BCA program are well-equipped for roles such as software developer, web developer, database administrator, system analyst, and IT support specialist. The degree also serves as a stepping stone for higher studies like Master of Computer Applications (MCA) or certifications in specialised IT domains.



OPPORTUNITIES AREN'T GIVEN

THEY'RE MADE.

CHITKARA MADE

Engineering Programs 2026

Computer Science | Artificial Intelligence & Machine Learning
Information Technology | Electronics & Communication | Electrical

Mechanical | Mechatronics | Mechanical & Smart Manufacturing
Automobile | Civil | Nautical Sciences

B.E. in Computer Science and Technology
in Academic Mentorship with Arizona State University, USA

B.E. in Software Engineering | Artificial Intelligence & Machine Learning
in Academic Mentorship with Deakin University, Australia

B.E. in Computer Engineering
in Academic Mentorship with York University, Canada

CHITKARA UNIVERSITY

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Admissions Helpline:
Chandigarh: 95011 05714 | 95011 05715
Delhi/NCR: 95993 68734

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give a miss call on **1800 267 1999**

WhatsApp : 98590 00000

admissions@chitkara.edu.in

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