

**CHITKARA**  
UNIVERSITY



# DISCOVER ENGINEERING

IMAGINE | INNOVATE | INSPIRE

Engineering  
Viewbook 2024



**EXPLORE  
YOUR  
POTENTIAL**



Whatever the dream, Chitkara University can help you get there. Located 30 km from Chandigarh, our campus in Himachal Pradesh offer a world of learning that will help you reach your goals. Access the opportunity to get placed at one of the 2000+ companies that visit for campus recruitment. Learn from an outstanding faculty at our 'state-of-the-art' teaching facilities. Choose from our varied industry endorsed programs. And meet other students with dreams as big as yours.



Breakthrough programs. High rankings. Highly rated academic credentials. Outstanding alumni network. Unlimited opportunities to embark on research from day one. Experience global education with 300+ Global University Partners. Kickstart your startup idea at one of the largest University Incubators. Everywhere you look, Chitkara is a University on the rise.

**CHITKARA**  
UNIVERSITY



# 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.

## WORLD-CLASS RESEARCH EXCELLENCE



With more than 200 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 Nanotechnology, Mobile Learning, Robotics, Renewable Energy and Mechatronics.

## TOP SKILLS



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

## 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'.

## 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.

## 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.

## TOP 20 RANKING



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

## COUNTED AMONG THE BEST



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



## 5 STARS

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

## 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.

## LEARN FROM THE BEST



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

## 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.

## 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'.



## 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.

## 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.

## TRAVEL THE WORLD



At Chitkara University, we offer over 170 exchange destinations to consider.

## SAFE & SOUND

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





**Dr. ASHOK CHITKARA**  
**CHANCELLOR**  
**CHITKARA UNIVERSITY**

Selecting a university program marks the beginning of an exciting journey in your life. It expands your opportunities as well as brings you life changing experiences.

Students from around the world are attracted to Chitkara University for several reasons. This includes our commitment to teaching excellence, research that makes a difference, industry partnerships and our tailored courses.

We are invested in the growth of every student 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.

We look forward to welcoming you as a part of the Chitkara University fraternity.

**STRONG  
ACADEMIC  
HERITAGE**

**Dr. MADHU CHITKARA**  
**PRO CHANCELLOR**  
**CHITKARA UNIVERSITY**

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.

Chitkara University is known and trusted by the best of employers for preparing graduates who have the knowledge and skills they need to succeed in their workplace.

There are many reasons for choosing Chitkara University. Our students go on to achieve successful careers. We teach in a hands-on and responsive manner. We provide a wonderful learning atmosphere and our research is world-class.

Our industry-relevant curriculum, global exposure, inclusive pedagogy, faculty mentoring and student resilience are all in sync. Our excellent placements bear testimony to all of this.



“The learning environment at **CHITKARA UNIVERSITY** is a unique combination of illustrious faculty, brilliant & intellectual students and proactive industrial collaborations.”



**CHITKARA**  
UNIVERSITY



## **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 **A+ rating by National Assessment and Accreditation council (NAAC)** which places us among the top 5% of Higher education institutions in India.



Our programs have once again been ranked among the Nation's Best in the 2023 NIRF Ranking.



We have been ranked 2nd across country in the prestigious ARIIA 2022.



We are proud to be ranked among the world's best in the QS World University Rankings: Asia 2024.



Year after year, Chitkara University has been ranked among the **Top 10 Universities** of the country for filing maximum patents.



Ranked as one of the Cleanest Universities of India in the eSWACHHTAÍ ranking.





# 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.

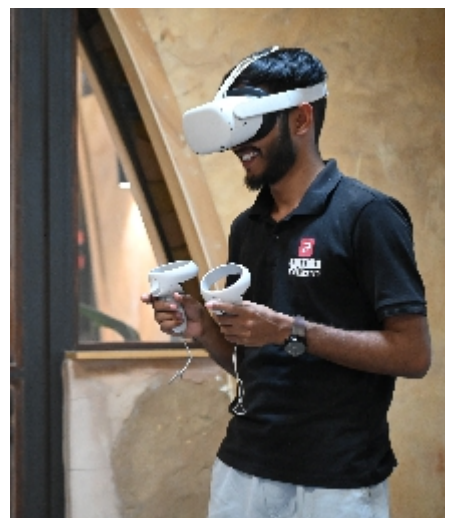
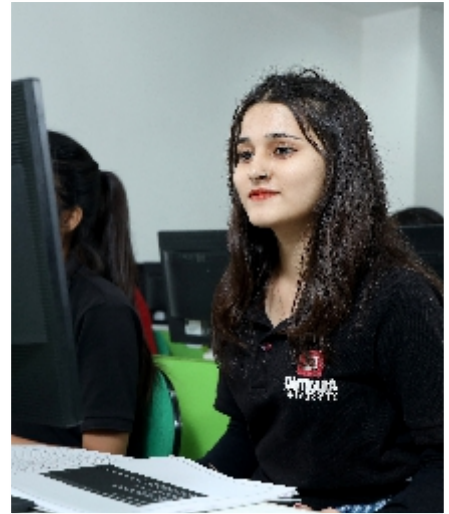
Ample opportunities are available to work and grow in the IT, BPO and pharmaceutical sectors in the region. It has proven to be a magnet for potential employers and employees.

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 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 Chandigarh offers.

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

You'll come here with the ability to do anything imaginable.

**START  
HERE TO  
SEE  
WHERE  
THAT  
MIGHT  
TAKE YOU.**





## ENGINEERING AND TECHNOLOGY PROGRAMS

4-Year Bachelor of Engineering (B.E.)

- Computer Science Engineering
- 3-Year BCA



# GO ABOVE AND BEYOND

LET'S GET RIGHT TO IT. UNIVERSITY IS ABOUT ACADEMICS. AND, BECAUSE YOU'RE READING ABOUT CHITKARA UNIVERSITY, WE ASSUME YOU'RE INTERESTED IN **RIGOROUS ACADEMICS**. AT CHITKARA, THEY ALSO HAPPEN TO BE EXCITING, INSPIRING AND INNOVATIVE.



## **A STERLING REPUTATION**

We are known for excellence. In fact in the NIRF rankings, both Punjab and Himachal campuses got rated as one of the best in the country. Many of our programs have been ranked among the nation's elite: Management, Computer Science Engineering, Pharmacy, User Experience and Optometry to name just a few.

## **CUTTING-EDGE, CAREER-READY CURRICULUM**

A state-of-the-art curriculum grounded in experiential learning, plus strong industry partnerships, means our classes teach the skills employers want. Our faculty is always looking ahead, designing new classes that keep us at the forefront of innovation.

This means that everything you study will have a practical, relevant application in the field of work. In every program, further specialisation and electives are offered in the final year of the study. To help a student in this task, various tracks have been identified through our curriculum geared towards a variety of specialisations. Our goal is to prepare students for a satisfying career. Following a particular curricular track will equip the students with the skills required for progressing further in their chosen career path.

## **LEARN FROM THE BEST, WITH THE BEST**

Whatever you study at Chitkara University, you'll learn from the leaders in the field. Our faculty includes award-winning scholars, determined researchers, innovative entrepreneurs, and celebrated artists. They're experienced and inspiring.

You'll also be pushed by your peers. Your classmates will be smart, accomplished scholars who rank at the top of their high school classes. Smaller classes mean you get individual attention. With average class size under 50 students, you'll get to know your professors and on any given day, you may find yourself sitting beside the next digital sensation or chatting over lunch with a future entrepreneur.

Committed to your success from day one, we offer you the resources of a big university with the caring and personal attention of a small college. We believe the cornerstone of your education should be hands-on experience, which is why you'll take what you learn in the classroom and apply it to the real world from day one.

When you graduate from Chitkara University, you'll be a functional, experienced graduate ready to contribute to your industry from the day you're hired-which is why many of our students have jobs lined up well in advance of graduation.

# FROM CLASSROOM TO CAREER, WE'RE HERE FOR YOU.

DON'T DO IT ALONE. WHETHER YOU ARRIVE ON CAMPUS WITH A CLEAR VISION OF YOUR FUTURE OR FIND A NEW INTEREST ALONG THE WAY, **CHITKARA OFFERS A WEALTH OF RESOURCES TO HELP YOU WITH ACADEMIC ADVISING AND CHARTING A CAREER PATH.** SO DREAM YOUR DREAMS—WE'LL HELP YOU MAKE THEM COME TRUE.





### **START YOUR CAREER ON DAY ONE**

As soon as you arrive at the University, the Career Advancement Services (CAS) takes a four-step approach to help you shape your future – self-discovery, career exploration, skill building and making it happen. We'll help you develop a plan of action and then connect you through our online platform with employers for internship and job opportunities.

### **PROBLEM BASED LEARNING (PBL)**

Some of our courses are taught using the PBL approach where students apply their knowledge to solve problems they may encounter in a professional context and in doing so extend their experience beyond text books. Elements of real-life work scenario are brought into the classroom by the PBL approach. Students undertake a series of tasks that introduce industry problems into the academic environment.

### **COMMUNICATION SKILLS**

Attitude, communication and knowledge are three essential elements for students to succeed in their lives. We emphasise on these three aspects thoroughly to make our students competent and capable professionals. In a recent survey of recruiters from companies with more than 50,000 employees, communication skills were cited as the single most important decisive factor in choosing employees.

We provide specially designed training programs to the students in order to improve their employability skills and to prepare them to face the interview boards more effectively.

We have qualified in-house trainers providing language training where students learn to speak and communicate effectively. Sufficient opportunities are provided to our students to master their language skills through group discussions and presentations.

# BUILD YOUR CAREER

FEW WORDS SPRUCE UP A RESUME LIKE "CHITKARA UNIVERSITY." BECAUSE CHITKARA EDUCATION IS GEARED TOWARD PREPARING YOU FOR A SUCCESSFUL CAREER. IN FACT, **RECRUITERS AND CEOs RANK OUR GRADUATES VERY HIGH IN THE EMPLOYABILITY QUOTIENT.**

## **INTERNSHIPS 180° FROM AVERAGE.**

You need experience to get experience. This seems to be the biggest issue for students transitioning into the workforce these days.

Employers in today's market rely heavily on resumes that illustrate a relevant work history, whether that's from internships, volunteer work, or actual job experience.

Of course, most universities offer internships. It's the type of internships that really sets us apart. Internship opportunities abound not only in India but across the world.

Follow in the footsteps of previous ChitkaraU interns and you could:

- Develop web apps with Google
- Gain hotel management experience at JWM Marquis, Dubai
- Review design schematics for Honda
- Hone strategic marketing skills at Deloitte
- Pour your heart into cardiovascular research at Fortis Hospital
- Visualise data for Amazon

And that barely scratches the surface. If you're ready for some real-world experience, we're ready to help make it happen.



EDUCATION  
MOST POWERFUL  
WEAPON  
YOU CAN  
USE  
TO  
CHANGE  
THE WORLD

  
CHITKARA  
UNIVERSITY

  
CHITKARA  
UNIVERSITY

# CHITKARAU DEGREE OPENS DOORS. WIDE.

AT CHITKARA UNIVERSITY, THERE IS AN INTENSIVE FOCUS ON GETTING EACH AND EVERY STUDENT INDUSTRY READY. WITH MORE THAN **2000 RECRUITERS VISITING OUR CAMPUS EVERY YEAR,** OUR GRADUATES ARE WELL EQUIPPED FOR THE NEW WORLD OF WORK.

## INDUSTRY MENTORS

All our degree programs include real-life industry experiences and great range of employability initiatives to help you be job ready. Sometimes a little advice and guidance from someone who has "been there and done that" can go a long way. Students have unlimited opportunities to interact with professionals from their field to build contacts and learn about new industry trends.

## NETWORKING

Smart graduates require tapping into network of people, technology and information. Here you are connected with world-class faculty, leading managers and innovators. Workshops with industry speakers are held regularly to acquaint you with the latest happenings.

## WHERE EMPLOYERS COME TO YOU.







Each year, close to 2000 employers participate in Chitkara's career fairs on campus, including the likes of Reliance, Tata Group, Adani, Adobe, Microsoft, L&T and Mahindra. More than 100+ startups such as Zomato, Ola and MakeMyTrip have been hiring our graduates regularly.

## CHITKARA ALUMNI NETWORK

Chitkara alumni community is strong and active with over 1,00,000 alumni worldwide in more than 180 countries. The Alumni Career Advisory Network links Chitkara's community of students, recent graduates, and other alumni together.



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:

 <small>Energy and Logistics</small>					
					
					
					
					
					
					

**DON'T JUST  
ACQUIRE  
KNOWLEDGE,  
CREATE IT.**



# **THE WORLD CHANGES HERE.** AT CHITKARA, RESEARCH ISN'T JUST FOR GRADUATE STUDENTS. THAT'S IMPORTANT. BECAUSE RESEARCH TAKES EDUCATION OUTSIDE THE CLASSROOM WHERE YOU CAN APPLY IT AND MAKE EXCITING DISCOVERIES.



At Chitkara University, we believe every student benefits from being taught by experts active in research and practice. You will discuss the latest ideas, research discoveries and new technologies in seminars and in the field, and you will become actively involved in a research project yourself.

Through Chitkara University Research and Innovation Network (CURIN), our researchers, staff and students work across disciplines to extend the boundaries of knowledge. Right from Year 1, students can initiate their research journey at 49 centres of excellence units or work with faculty on their startups.

## **UNDERGRADUATE RESEARCH OPPORTUNITIES PROGRAM**

UROP affords hundreds of undergraduates the opportunity to explore research in academic disciplines as diverse as Pharmacy, Engineering, or Healthcare. Assisting professors, our student researchers work on fascinating projects, from engineering a better electric scooter to coding robots to move on their own.

There are always numerous research projects in progress, funded by industry, charities, government departments and research councils. Our undergraduate students benefit through access to up-to-date equipment, industrially linked projects and staff expertise and get involved in cutting edge research, exploring new technologies to improve the country's infrastructure and safety and contributing to society through many other discoveries and innovations.



**2500+**  
Patents

**49** Centres of  
Excellence

**80 Crore+**  
Research  
Grants

**5000+**  
Scopus indexed  
research papers

**13+**  
Joint research  
projects with  
Global universities

# 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 200+ 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 ([www.startupindia.gov.in](http://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: 260+
- Total valuation of the incubated startups: USD 43 million
- Total mentors: 75+
- Solutions commercialised: 76+
- Jobs created by startups: 1800+
- External funding raised by the startups: USD 3 million
- Total no. of Patents filed by Incubates: 470+
- Current Incubates: 73+
- Ecosystem Partnerships & collaborations: 50+
- Supported & approved by Department of Science & Technology, Govt. of India

### Received major grants like:

- Startup India Seed Fund, Niti Aayog, Govt. of India ([www.seedfund.startupindia.gov.in](http://www.seedfund.startupindia.gov.in))
- NIDHI PRAYAS, Department of Science & Technology, Govt. of India ([www.nidhi-prayas.org](http://www.nidhi-prayas.org))
- NIDHI-SSP, Department of Science & Technology, Govt. of India ([www.dst.gov.in](http://www.dst.gov.in))
- TIDE 2.0, Ministry of Electronics & Information Technology, Govt. of India ([www.meitystartuphub.in/incubators/schemes/tide-2-0](http://www.meitystartuphub.in/incubators/schemes/tide-2-0))

### SUPPORTED BY







Chitkara University incubated startup "Chai Nagri" raises \$122k at Investor Fest 2022

## ENTREPRENEURSHIP & INNOVATION SPECIALISATION

Whether you already have an idea for a startup or are still brainstorming, Chitkara University's specialisation in Entrepreneurship and Innovation offers workshops to help you develop and refine your strategy before you jump into building an actual company. You can take part in Chitkara University's 'Launch Your Big Idea' program and gain the necessary training and resources to prepare your startup for success - plus a chance to pitch your idea and win seed funding. You can also connect with like-minded student entrepreneurs through events hosted by the Chitkara Innovation Incubator.

Chitkara University's Entrepreneurship programs for our Business graduates is designed to prepare future entrepreneurs with the skills and knowledge to start their own businesses. The specialisation will focus on identifying, analysing and evaluating global and local business opportunities, creating new independent business ventures or new ventures within existing firms; developing creativity and understanding innovation; environment assessment for new ventures; marketing research and developing effective business plans to obtain financing, legal issues related to starting and operating a family-owned business.

### Major learnings from these programs will be:

- Be critical thinkers who are capable of identifying business opportunities by using cutting-edge analytical tools.
- Communicate clearly to develop and evaluate business plans and funding proposals.
- Apply relevant financial principles to assess start up capital needs, cash flow needed for growth, break-even analysis and pre-and post-funding.
- Effectively understand and implement a marketing plan for a new venture.

# THE FUTURE IS GLOBAL. YOUR EDUCATION SHOULD BE, TOO.

LIVE INDEPENDENTLY. GAIN CULTURAL AWARENESS.  
EXPAND YOUR SOCIAL NETWORK TO SPAN THE GLOBE.  
MAKE NEW FRIENDS WHO MAY BECOME YOUR  
FUTURE **COLLABORATORS IN AN INCREASINGLY  
INTERCONNECTED WORLD.**

Chitkara University's robust international exchange program with more than 250 global institutions 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. Our approach to global education rests on the belief that every student needs a broad global mindset and they will get many opportunities to globalise their University experience.



Semester, winter and  
summer exchange



Global internships and  
work-integrated learning



Overseas  
short courses



International  
Volunteering



Academic study tours  
and field trips



Overseas conferences  
and workshops



Research  
Practicums


















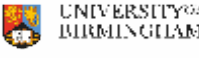














Global Study  
Missions

# AGE FOR CHITKARA UNIVERSITY



We have **strong collaboration** with **300+** global universities such as

 AUSTRALIAN CATHOLIC UNIVERSITY	 Arizona State University	 DEAKIN UNIVERSITY	 DHBW Duale Hochschule Baden-Württemberg	 EM NO SMARIE UNIVERSITY
 Glasgow Caledonian University	 Griffith UNIVERSITY	 HARVARD BUSINESS SCHOOL	 HERIOT WATT UNIVERSITY	 LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE
 PURDUE UNIVERSITY	 Stanford University	 THE GEORGE WASHINGTON UNIVERSITY WASHINGTON, DC	 THE UNIVERSITY OF ARIZONA	 THE UNIVERSITY OF NEWCASTLE AUSTRALIA
 TRENT UNIVERSITY	 UBC	 UNIVERSITY OF BIRMINGHAM	 UMASS	 uOttawa
 UWE Bristol University of the West of England	 University of Windsor	 VANCOUVER ISLAND UNIVERSITY	 WESTERN SYDNEY UNIVERSITY	 YORK UNIVERSITY
 YORK UNIVERSITY	 GEORGE BROWN COLLEGE	 Fontys	 UNIVERSITY OF WISCONSIN PARKSIDE	 THE HAGUE UNIVERSITY OF APPLIED SCIENCES

# WORLDWIDE.

AS MUCH AS WE LIKE HAVING YOU AROUND, WE ENCOURAGE STUDENTS TO GET AWAY NOW AND THEN. CHITKARA'S STUDY ABROAD PROGRAM IS **ONE OF THE BEST IN THE COUNTRY.**

Learn in a classroom on a different continent. Experience working in the real world, around the world. Lend a hand to those in need.

There are so many new experiences awaiting you at Chitkara University.



# AND WORLD-CLASS.

## **SEMESTER EXCHANGE PROGRAMS** Foster stronger bilateral ties

Chitkara students have the option to finish the last half part of their degree programs at more than 250+ global partner Universities. Students visit Partner Universities for six months to one year for completing their semesters abroad.

## **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.

## **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 go on 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.



# COME TO PLAY.

**AT CHITKARA, IT'S PLAY HARD, CHEER HARD, OR STAY HOME.**

**DON'T BE AFRAID TO PUT DOWN THOSE BOOKS ONCE IN A WHILE AND HIT THE GYM. OR TRACK. OR COURT. OR POOL. OR THE CRICKET GROUND. OR WHATEVER INTERESTS YOU. AND DON'T BE SHY ABOUT" CHEERING ON ALL YOUR CLASSMATES-JOIN THE LEAGUE OF CHAMPIONS!**

## **JOIN IN THE FUN**

Physical activity is an integral part of life at Chitkara University and it reflects in the campus design too. Students have access to state-of-the-art sports facilities for sports such as cricket, badminton, basketball, futsal, football, athletics and table tennis among others.

**50+**

Intramural and club sports

## **FIT INDIA MOVEMENT**

The Fitness Center, one of Campus Recreation's primary facilities, is located in both the Universities. It hosts a wide variety of options available to fit anyone's recreational and exercise needs and features most modern equipment and enough space to accommodate all kinds of activities. You will also find our fitness classes, a recreation swimming pool and dance studios all around the fitness centre.





**WHERE YOU'LL RE  
THAT STUDYING.  
EVEN MORE.**



**CHITKARA UNIVERSITY IS A TRUE RESIDENTIAL COMMUNITY. MOST OF OUR STUDENTS LIVE ON CAMPUS AND ENJOY THEIR CAMPUS LIFE TO THE FULLEST WITH **MODERN HOSTELS AND A PLETHORA OF DINING OPTIONS.** IT'S NO WONDER STUDENTS FIND THIS A GREAT PLACE TO LIVE. SO WILL YOU.**

### **WELCOME HOME**

Student housing at Chitkara University for both campuses signifies new possibilities and opportunities for the student to live, learn and grow with the promise of a safe and secure environment. It provides the right environment for studies and overall development to all its resident students.

Our purpose-built accommodation options provide students with sophisticated, tech-forward housing during higher education years. Accommodation is one of the biggest concerns for student and their families and by providing a safe environment, we create a stable foundation upon which young students build their academic careers.

Our sharp focus on security is designed to reassure parents while their children are away from home.

### **BON APPETIT**

Be it breakfast, lunch, dinner or a late night snack, the University Food Court has something to satisfy any and all of your cravings. Inside our dining hall, you'll find a variety of cuisines.

Chitkara University boasts of a healthy and sustainability-conscious on-campus menu that provides a wide range of nutritious and delicious meal options for students.

Throughout campus, there are choices galore ranging from coffee and snack shops to our on-campus pizzeria.

**COVER FROM ALL  
AND REFUEL FOR**

# 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

**TOP 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 Center for Learning Resources





# Engineering Education ahead of its time.

Engineering programs at Chitkara University in Himachal Pradesh do more than just develop world-class engineers and computer scientists. We help these bright minds develop into changemakers with global perspective, technical prowess and leadership skills to make a difference in the world.

Get ready to chart your course to a career that is as meaningful as it is successful. Every possible path starts with a common engineering core curriculum for the first year and a half, which lets you explore your options and discover the discipline that's right for you.

There are many forces behind our strength: our academic reputation, top rankings, varied specialisations, small class sizes and 100% campus recruitment.

Come Explore Your Potential at Chitkara University!

# CHITKARA ENGINEERING

You solve problems. Build. Innovate. You take things apart to see how they work and think about how to make them better—it's why you're drawn to engineering. And maybe you can already see a better way forward with cleaner energy, more efficient travel or new technologies that will change the world. We can help you get there.



Ministry of Human Resource Development  
Government of India

Our Engineering programs have once again been ranked among the Nation's Best in the 2023 NIRF Ranking.

Join Engineering programs at Chitkara University and we will place you at the very heart of everything we do. We 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.

As a Chitkara Engineering student, you'll learn from friendly, approachable teaching faculty with considerable knowledge and a genuine desire to help you achieve your full potential. Our tutors have immense industry experience. With extensive business links, they bring current thinking, expertise and innovation into their teaching. You will not only gain an underpinning knowledge of your subject, you will also get plenty of hands-on experience solving real world Engineering challenges.





## ENGINEERING PROGRAMS WITH A REAL-WORLD REPUTATION.



We have collaborations with some 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 along with industry collaborations with bluechip companies such as



## COUNTED AMONG THE BEST



Chitkara Engineering is ranked in the Top 50 Engineering programs.



Consistently ranked Chitkara Engineering among the best in India.

## Outlook

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

## CAREERS 360

Chitkara University Engineering programs Rated 'AAA+'.



## 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 Engineering 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

Inclusion of strong liberal arts subjects in our 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.

## RESEARCH EXCELLENCE

Study with us and you will learn from a faculty with a stellar reputation for research. We have 35 crore+ research grants and 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 & technologies.



## 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.

## 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.



## WORK-READY WORLD-READY

Study with us and we'll 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.

# CAMPUS RECRUITMENT ENGINEERING PROGRAMS

When you graduate from Chitkara University, you'll be a functional, experienced engineer ready to contribute to your industry from the day you're hired-which is why many of our students have jobs lined up well in advance of graduation.

**670+**

campus recruiters for batch of **1800** Engineering graduates

**171+**

Companies Visiting IITs / NITs also Hired from our Campus

**310+**

Super Dream Offers of **10 lacs+**

**570**

Dream Offers of **8 lacs**

**1.11 CRORE**

HIGHEST SALARY OFFERED BY **amazon**

**1150+**

Students Recruited **On Day1**

Infosys®



accenture





Some major companies hiring our Engineering graduates through the years are


# Computer Science Engineering

When you study Computer Science Engineering at Chitkara University, you receive a solid foundation in computer science and engineering principles and theoretical analysis and also learn how to apply them in your actual computing experience.

The best of technology companies recruit our computer science graduates every year giving them a broad range of career choices as they can organise, design and apply digital processing systems, bridging hardware and software.

## 4-Year Bachelor of Engineering

# COMPUTER SCIENCE ENGINEERING

### INTRODUCTION

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.

Plus you'll 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'll be getting a superb liberal arts education that will enrich your technical and scientific training and help you to become a better problem solver, team member and manager.

### SCOPE OF EMPLOYMENT

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

# Artificial Intelligence

Artificial intelligence (AI) promises to deliver some of the most significant and disruptive innovations of this century. Self-driving cars, robotic assistants and automated disease diagnosis are all products of an emerging AI revolution that will reshape how we live and work. With demand for talented engineers more than doubling in the last few years, there are limitless opportunities for professionals who want to work on the cutting edge of AI research and development.

# Specialisation in Computer Science Engineering

## ARTIFICIAL INTELLIGENCE

When it comes to the best jobs for the future, few industries stand out as much as artificial intelligence. 2020 Gartner Report shows that enterprise applications for AI have grown 270% in four years, fueling a level of demand that outstrips the current supply of qualified job candidates.

This is great news for students seeking machine learning jobs and related careers in artificial intelligence. The number of industries using AI is also expanding to the point where virtually no major enterprise will be untouched by this rapidly unfolding technology revolution.

Our specialised Engineering program in Artificial Intelligence gives you the in-depth knowledge you need to transform large amounts of data into actionable decisions. The program and its curriculum focus on how complex inputs — such as vision, language and huge databases — can be used to make decisions or enhance human capabilities. The curriculum includes course work in Computer Science, Mathematics, Statistics, Computational Modeling, Machine Learning and Symbolic Computation.

Students in this program will take courses in Mathematics & Statistics, Computer Science, AI, Science & Engineering and Management. The program builds a solid foundation by covering the most popular and widely used deep learning technologies and its applications, including Computer Vision, Convolutional & Recurrent Neural Networks, Natural Language Processing and Tensor Flow.

### COMPUTER SCIENCE

Computer Systems and Programming | Principles of Imperative Computation | Principles of Functional Programming  
Data Science Essentials | Parallel and Sequential Data Structures and Algorithms | Agile Software Development  
Logic Programming and Computational Logic

### CORE SUBJECTS IN ARTIFICIAL INTELLIGENCE

Machine Learning, Deep Learning & Reinforcement Learning | Information Theory, Inference & Learning Algorithms  
Neural Networks for Machine Learning | AI Representation and Problem-Solving | Natural Language Processing  
Computer Vision and Image Analysis. Once you master some of the fundamentals, we will offer AI subfields that most interest you and you can shape your coursework accordingly. Some sample artificial intelligence clusters and subjects are mentioned below:

#### Machine Learning

Deep Reinforcement Learning and Control | Applied Machine Learning | Machine Learning for Text Mining  
Advanced Data Analysis

#### Decision-Making and Robotics

Neural Computation | Autonomous Agents | Cognitive Robotics | Strategic Reasoning for AI  
Robot Kinematics & Dynamics

#### Perception and Language

Information Retrieval and Search Engines | Speech Processing | Computational Perception | Vision Sensors  
Computational Photography

#### Human-AI Interaction

Designing Human -Centered Systems | Human-Robot Interaction | Robotic Manipulation | Safe and Interactive Robots

Companies hiring in AI include not only the usual suspects — namely, Google, Amazon, and Apple — but also a host of startup artificial intelligence companies specialising in niche industries.



# Cloud Computing

The next wave of computing is in the 'Cloud'. Many businesses want to get out of the complexity of managing data centers and instead focus on their core competencies. This means that more and more businesses will adopt Cloud Computing as a means to handle their IT requirements, which gives them the freedom from day-to-day management of IT infrastructure.



# Specialisation in Computer Science Engineering

## CLOUD COMPUTING & VIRTUALISATION TECHNOLOGY

in academic collaboration with



Chitkara University has prepared the curriculum under the guidance of AWS Educate to make it focused on Cloud Computing and “Industry Aligned”, right from Year 1, with the outcome that its students can make their career in the ever-growing field of Cloud Computing & 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 towards 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 the ever growing field of 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.

### CAREERS

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

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



# Data Science and Analytics

Prepare for a future in Data Science, Analytics & Big Data. From Big Data to Cloud Computing, from astronomy to sports, data science is the foundation of our data-driven future and the demand for trained data scientists has never been higher.

Our daily lives generate more data than ever before and in that wealth of data lies insights that will change the world. Our Computer Science degree with Analytics as specialisation will give you the tools and the skills needed to create improved data-driven decision making in just about every imaginable domain.

# Specialisation in Computer Science Engineering

## DATA SCIENCE AND ANALYTICS

### INTRODUCTION

Our program in Data Science and Analytics is designed to meet the growing demand for data scientists and data analysts with deep analytical and technical skills who can analyse massive amounts of data and extract information from complex data sources. Data Science is very important for organisations as it helps to harness their data and use it to identify new opportunities, leading to smarter business moves, more efficient operations, higher profits and happier customers.

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 interdisciplinary 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 of 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

### CAREERS

According to NASSCOM, the Data Analytics market will reach \$16 billion by the year 2025, growing eightfold from its market worth in 2016. India alone will require over 500,000 data scientists, as per various industry insights.

### TYPES OF COMPANIES / 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

# Full Stack Development

With advancements in web-based mobile and desktop application development, Full Stack Developers and Engineers have emerged as one of the most strategic and coveted assets in the software industry. With a deep understanding of the Software Development Life Cycle, including planning, requirement gathering, design, development, testing, deployment and production support, Full Stack Engineers are able to drive projects far more efficiently and effectively and thus command a higher value in the job market.

# Specialisation in Computer Science Engineering

## FULL STACK DEVELOPMENT

### INTRODUCTION

Our specialisation in Full Stack Engineering is designed for students who wish to start their career in the IT industry by mastering a full stack of multiple technologies, acquiring an ability to architect high impact solutions, envision and design great new products, solve complex problems and manage cross-functional collaborations.

The program is designed to build skills in high-demand areas such as SDLC, application development for web, mobile & 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.

### CAREERS

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.

# Specialisation in Computer Science Engineering

## CYBER SECURITY

### INTRODUCTION

Cyber Security is a branch of Digital Forensic Science pertaining to legal evidence found in the cyber space and digital storage media. Cyber Security technologies, processes and practices are designed to protect networks, computers, programs and data from damage or unauthorised access.

Specialisation in Cyber Security offers you the opportunity to gain a comprehensive and critical understanding of the theory and techniques of contemporary Cyber Security and how to apply these in response to “real-world” business problems. The specialist qualification in one of the most in-demand areas of IT, combining - advanced aspects of security, its practical application and the implications of security within a business.

As we all know, the technology industry has taken huge strides in the 21st century with inventions that brought the whole world to our fingertips. While it has made our lives undeniably easier, it has also opened up a world of possibilities for criminals who could make use of the information that has been put online for the wrong reasons. This is where cybersecurity comes in.

### CAREERS

With digitalisation moving in the fast lane, it is estimated that a whopping 3 million cyber security professionals will be required in the country to support its fast-growing internet economy.

Our Cyber Security Engineers shall find excellent placements in research-oriented industries and top ranking global companies, with their careers ranging from:

- Cyber Security Specialist ● Security Architect ● Cyber Operations Analyst ● System Administrator
- Security Software Developer ● Security Engineer ● Cyber Forensics Architect ● Cyber Malware Analyst





# Specialisation in Computer Science Engineering

## GAME DESIGN & AUGMENTED REALITY

### INTRODUCTION

We have all played and enjoyed games, but how do people actually design them? What are the basic elements? How do designers create an experience for the player? What about prototyping and iterating? This specialisation in Game Design will help students explore the above questions and much more.

Students will be introduced to Game Design - its concepts, emphasising the basic tools: paper and digital prototyping, design iteration and user testing. They will also learn about the challenging, multi-disciplinary subject area of Augmented Reality (AR), where they will learn the skills required to create VR/AR simulations, games, visualisations and apps.

Students will study the creation of digital content and the practical application of VR/AR technologies. Some highlights of the program are:

- Research and develop your own VR/AR concepts by creating 2D and 3D digital artwork.
- Study the evolving theories and principals of design-led VR/AR. This includes designing for immersive environments, location-based mobile apps and wearable technologies.
- Research and explore theories of user-centred design and user experience.

### CAREERS

According to Statista, Gaming and AR market size was around \$6.1 billion in 2016 but is expected to reach \$215 billion by 2023. Although companies have spent several years developing and refining this technology, demand for skilled professionals is experiencing a major uptick as more technologies make it out of R&D and enter the marketplace.

- Developers typically collaborate closely with Software Designers and 3D Artists, as well as Design Architects and Engineers who plan and create the hardware on which XR Software runs.
- System Validation Engineers test systems and help resolve technical issues, and circle back with developers to ensure applications get modified accordingly.
- Project Managers coordinate and oversee entire development teams, interface with other business units and work with clients.

COMPUTER SCIENCE ENGINEERING

DESIGN IS THE  
FUNDAMENTAL SOUL  
OF A HUMAN-MADE  
CREATION THAT ENDS  
EXPRESSING ITSELF  
IN SUCCESSIVE OUTER  
LAYERS OF THE PRODUCT  
OR SERVICE  
STEPS

# User Experience Design

At Chitkara University, we offer Computer Science Engineering with specialisation in User Experience. This specialisation focuses on teaching students how to design digital products that provide relevant user experiences - understanding the needs of the users. Creating a product roadmap based on these user needs and implementing the principles of UI/UX design to get an easy to use and simple product.



# Specialisation in Computer Science Engineering

## USER EXPERIENCE DESIGN (UX/UI)

UX Design refers to the term “User Experience Design”, while UI Design stands for “User Interface Design”. Both elements are crucial to a product and work closely together. But despite their professional relationship, the roles are distinct different, referring to very different parts of the process and the design discipline. Where UX Design is a more analytical and technical field, UI Design is closer to what we refer to as graphic design, though the responsibilities are somewhat more complex.

Chitkara University has the best in-house faculty, accompanied with guest faculty from Industry with expertise in UI/UX domain. This specialisation has been devised and designed keeping in mind the UX Industry, considering the needs of the job market and thus offers excellent placement.

### SOME KEY COMPONENTS OF THE PROGRAM ARE:

- Understanding the fundamentals and principles of UI/UX Design.
- Knowledge of tools and process used in UI/UX Design, with a mix of classroom assignments, projects, field work, industry projects, internships and shadow learning.
- Skillset required in “real-life” design problems through visual design tools and introduction to 6D.
- Quizzes, classroom assignments, field work etc. with “real-life” scenarios. Students are encouraged to come up with efficient solutions.
- Hands-on learning with the process of research, testing, development, content and prototyping to test for quality results.

### CAREERS

The day-to-day business operations of companies across the globe have changed with advancement of technology and rapid digitalisation. ‘Design’ of digital product influences business decisions and that’s the primary reason of the high demand of UI/UX Designers in industry.

### CAREER PATH

- User Researcher
- Interaction Designer
- Design Manager
- Chat UI Designer
- Information Architect
- Information Visualisation
- Usability Analyst
- Voice UI Designer
- Wireframe Expert
- Visual Designer
- Automotive UX Designer
- Haptic UI Designer

### SOME OF THE COMPANIES THAT HIRE OUR UI/UX STUDENTS



# PROGRAMS IN COMPUTER APPLICATIONS

## 3-Year BCA

### PROGRAM OVERVIEW

Information technology and communication systems have become critical components of almost every company's strategic plan. Companies who want to take advantage of the new information technologies and communication systems require expert professionals, who can apply computer science principles to solve problems produced by the interface between business and technology. In our BCA program, students are exposed to various areas of Computer Applications including the latest developments in the industry.

Our program in Computer Applications caters to the foundation of computing principles and business practices and trains the students to analyse problems in a wide range of applications. This program provides exposure to the students to enterprise software management methodologies.

### SOME OF THE MAJOR TOPICS COVERED IN THE BCA PROGRAM ARE:

- Introduction to Computer Organisation
- Data Structures
- Programming in Java
- Computer Architecture
- Software Engineering
- Operating Systems
- Digital Image Processing
- Programming in C & Algorithm Design
- Object Oriented Programming in C++
- Microprocessors
- Database Management Systems
- Computer Networks
- Computer Graphics
- Compiler Design

### PARTNERSHIP WITH IT INDUSTRY

Marquee companies such as Amazon, VMWare, Virtusa, Red Hat, Automation Anywhere and Cisco Network have developed & deployed IT industry relevant curriculum on emerging technologies for our Computer Application programs.





**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

**JOB TYPES**

- Software Developers • Systems Administrators • Project Manager • Chief Information Officer
- Computer Programmers • Computer Training • Computer Systems Analysts • Computer Scientists
- Computer Support Service Specialist • Database Administrators • Computer Presentation Specialist
- Commercial & Industrial Designers • Independent Consultants • Information Systems Manager
- Software Publishers

**CAMPUS RECRUITERS FOR BCA GRADUATES**

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



**CHITKARA**  
UNIVERSITY



**CHITKARA UNIVERSITY - HIMACHAL PRADESH**

Pinjore-Barotiwala National Highway

Himachal Pradesh | India

[www.chitkarauniversity.edu.in](http://www.chitkarauniversity.edu.in)

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