



**CHITKARA**  
UNIVERSITY

# Hello future.

PUNJAB  
Information Brochure  
Academic Year 2015

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Explore **Your** Potential

# EXPLORE YOUR POTENTIAL

Whether you want to broaden your mind, advance your career, increase your knowledge, travel the globe or change the world, Chitkara University can provide you with the **opportunity** and real life skills to do it.

# STRONG ACADEMIC HERITAGE

Chitkara University which has been founded by highly accomplished and **passionate** academicians is emerging as one of the leading non-profit private Universities in the country.

# 100% CAMPUS RECRUITMENT

Chitkara University has established an unassailable reputation for strong on-campus recruitments on the sheer virtue of our intensive focus on making all our graduates "**industry ready**".

# INNOVATION

Chitkara University is different. Our students are different. So are our faculty, our academic strengths, research pedigree and our outlook on **teaching and learning**.

# THINK

Students from around the country are attracted to Chitkara University because all our academic programs are designed with keeping **YOU** in mind.

**So go ahead. Sign on the dotted line for your future success.**

AN INSPIRATIONAL  
STUDENT EXPERIENCE  
AT A LEADING  
NON-PROFIT PRIVATE  
UNIVERSITY OF  
INDIA

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# WHO ARE WE?

Chitkara University has been founded by **Dr. Ashok Chitkara** and **Dr. Madhu Chitkara** who have been passionate teachers for more than 40 years now.

Since the inception of the University, Chitkara University has been **different**. Our students have been different. So are our faculty, our academic strengths and our outlook on **teaching** and **learning**.

The unique difference being that Chitkara University has been established by and managed by **passionate** academicians with the sole mission of making each and every student **"Industry ready"**

This difference has been acknowledged by students, parents, alumni, Government and Industry since the inception of the University. Within a decade, most of our academic programs are ranked among the **top 50** programs in the country which speaks volumes about our **strong** academic heritage, highly committed **faculty**, extensive Industry collaborations, great international connections and state of the art campus facilities.

JOIN CHITKARA UNIVERSITY TO  
EXPLORE **YOUR** POTENTIAL !!





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

Selecting a university program marks the start of an exciting period of your life. When you are selecting a program at an institution, you add life-changing experiences and expanded opportunities as well.

Students from around the country are attracted to Chitkara University because of our commitment to teaching excellence, because we conduct research that makes a difference, because of our industry partnerships and because of our tailored courses.

We look forward to welcoming you to Chitkara University.

**STRONG  
ACADEMIC  
HERITAGE**

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

Chitkara Education brings with it a reputation that has been earned through years of serving the career-needs of the student community. It is a reputation for excellence and innovation among coveted employers for preparing graduates who have the knowledge and skills they need for success in their workplace.

There are many reasons to choose Chitkara University. Our graduates go on to great careers, we're hands-on and responsive in our teaching, we provide a great environment to study and our research is world-class.



“The learning environment at **CHITKARA UNIVERSITY** represents a unique blend of distinguished faculty, brilliant and intellectual students with a proactive collaboration with industry.”



## CHITKARA UNIVERSITY IN PUNJAB

Chitkara Educational Trust established its Punjab campus in the year 2002 on the Chandigarh-Patiala national highway which is 30kms from Chandigarh. In the year 2010, Chitkara University was established by the Punjab State Legislature under the Chitkara University Act. Chitkara University is a government recognized University with the right to confer degrees as per the sections 2(f) and 22(1) of the UGC Act, 1956. Chitkara University Punjab is a multi-discipline student centric campus with more than 6000 students and 1000 faculty members.



## CONSTITUENT INSTITUTIONS OF CHITKARA UNIVERSITY (PUNJAB) ARE:

### CHITKARA INSTITUTE OF ENGINEERING AND TECHNOLOGY

- 4-Year Bachelor of Engineering (B.E.) in
  - Computer Science & Engineering
  - Electronics & Communication Engineering
  - Mechanical Engineering
- 2-Year M.E. Program in
  - Computer Science & Engineering
- 2-Year MCA (Lateral Entry)
- 3-Year BCA
- 5-Year Integrated BCA-MCA

### CHITKARA SCHOOL OF PLANNING & ARCHITECTURE

- 5-Year B. Arch.

### CHITKARA BUSINESS SCHOOL

- 2-Year Management Program (MBA) in
  - Marketing
  - Banking & Finance
  - Financial Market Practices in collaboration with **BSE Institute**
  - Healthcare Management in collaboration with **Fortis Healthcare**
  - Human Resource in collaboration with **ManpowerGroup**
  - Logistics & Supply Chain Management in collaboration with **Safeducate**
- 3-Year B. Com (Hons.)
- 3-Year BBA

### CHITKARA COLLEGE OF HOTEL MANAGEMENT & CATERING

- 3-Year B. Sc. (HMCT)

### CHITKARA COLLEGE OF PHARMACY

- 6-Year Pharm. D.
- 4-Year B. Pharm.
- 2-Year M. Pharm. (Pharmaceutics/ Pharmacology/ Clinical Research & Clinical Pharmacology)

### CHITKARA SCHOOL OF MASS COMMUNICATION

- 3-Year BA in Journalism & Mass Communication
- 2-Year MA in Journalism & Mass Communication

### CHITKARA COLLEGE OF SALES & RETAIL MARKETING

- 2-Year MBA (Sales & Retail Marketing)

### CHITKARA SCHOOL OF HEALTH SCIENCES

- 4-Year B. Sc. Nursing
- 3-Year B. Sc. (Allied Healthcare)
- 4-Year B. Optometry
- 2-Year M. Optometry

### CHITKARA COLLEGE OF EDUCATION

- B. Ed.





**Chitkara University's reputation for innovative teaching, strong industry links and highly employable graduates continues to set us apart from other Indian Universities.**

### **SMALL WORLD**

Whether you are a Bachelor's student, Master's student or taking part in one of our exchange programs, we make sure you feel right at home with us.

Chitkara University provides a specially safe and serene setting for studies. Students get to enjoy the changing seasons and are able to grow in various ways.

At Chitkara University, Education is not only 'State-of-the-art' but truly 'State-of-the-heart'. Everything we do shares the same mindset and determination.

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**We feel passionately about what we do and we hope you will become part of our family.**

### **CLEARED FOR LAUNCH**

Any decent road map to success requires that you know where you are going and also where you have been. The third element is momentum.

In accordance with Chitkara strategy, we allocate more and more resources to excellence in teaching and learning. The entire approach at Chitkara University is learning-centric, enhancing knowledge, skills and understanding through practical experience.

Today, we have impressive world-wide collaboration agreements with top International Universities and research institutions which is helping us train Chitkara students for the new global economy.

We strongly believe that we are creating the right kind of future for the professionals of tomorrow who we are educating today. Our Education is always supported by the exceptional research that we conduct. This is a solid platform for your potential, for your ambition and for your career.



## INDUSTRY-LED COURSES

Chitkara University offers a learning experience that improves your employment prospects. We maintain close links with leading blue-chip companies and professional associations to deliver most of our academic programs. Through these alliances we stay in touch with industry, ensuring that our courses are relevant, practical and deliver the skills in demand allowing our graduates to hit the ground running.

Strong corporate relationships also have a direct influence on our degree programs and have resulted in our 'industry facing' curricula. This ensures that our education is up to date and valued by the future employers of our alumni. Chitkara University's board also has a strong representation of top level executives from top corporations across the world.

## GREAT CAMPUS RECRUITMENT

Chitkara University has established an unassailable reputation for very strong campus recruitment on the sheer virtue of our intensive focus on making all our graduates 'industry ready'.

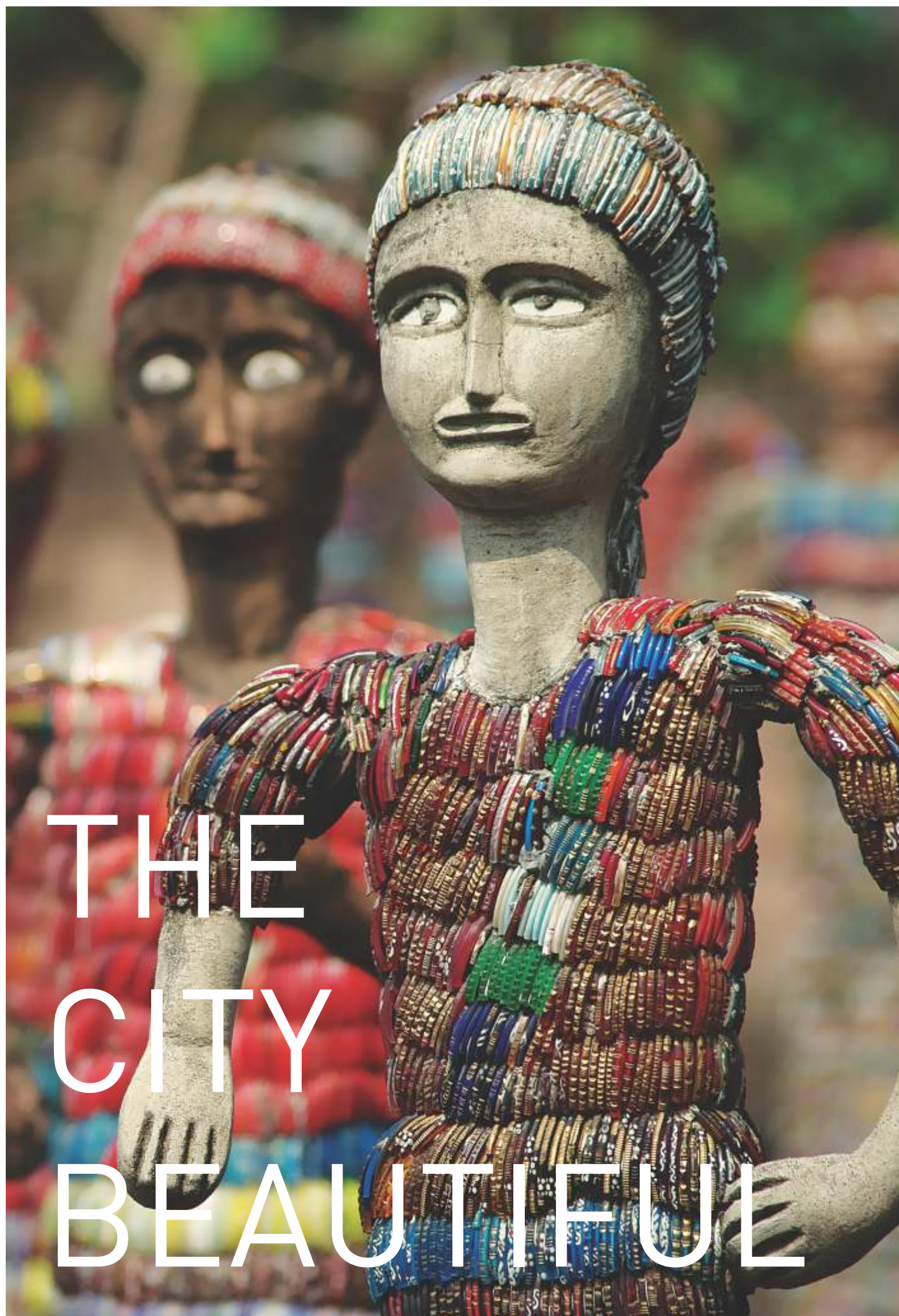
## START ME UP

Innovation and entrepreneurial thinking are highly valued at Chitkara University. The possibility to combine business and technology in their studies gives our students unique opportunities to build their future careers, be it through top-class companies or capitalizing on their own innovations in order to create new businesses.

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Think of it as your very own, personal Launch pad.





# THE CITY BEAUTIFUL

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# CHANDIGARH

## A million people; infinite possibilities

Located in the foothills of the Shivalik mountain ranges, Chandigarh is India's best planned city, with world renowned architecture and an unparalleled quality of life. The face of modern India, Chandigarh, is the manifestation of a dream that Pt. Jawahar Lal Nehru envisaged and Le Corbusier executed.

Chandigarh was the first planned city in India post independence in 1947 and is known internationally for its architecture and urban design. The city has projects designed by architects such as Le Corbusier, Pierre Jeanneret, Jane Drew and Maxwell Fry. It is an urban showpiece - where plants and trees are as much a part of construction plans as the roads and buildings.

Chandigarh and its surrounding areas, namely Mohali and Panchkula are on their way to become the north Indian hubs for IT industry with major presence of companies such as Infosys Technologies, Dell, Tech Mahindra, Quark and Wipro. Chandigarh is also home to several regional offices for major multinational banks, retail establishments and real estate corporations.

With its world class infrastructure and highest per capita income Chandigarh is fast emerging as the entrepreneurship hub of the country.

Chandigarh is also attracting the service industry, education, health, food processing and a host of other companies who view it as their regional center for all north Indian states namely Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab and Haryana.

- Chandigarh is a city that comes under eTimes' 15 best Asian spots. eTimes magazine has dubbed Chandigarh as 'the thinking man's city' amidst a continent of mindless growth
- In major surveys, Chandigarh beats Bangalore, Chennai & Hyderabad in the overall ranking of India's best cities for doing business.
- A confederation of Indian Industries (CII) commissioned study has ranked Chandigarh as the overall third best city for doing business among 35 cities with an urban population exceeding population of one million.

With easy connectivity to major cities across India by flight as well as rail Chandigarh serves as the gateway to northern India. There are also direct flights to connect with the rest of the country mainly Mumbai, Delhi and Bangalore. Indian rail network connects this city to various Indian cities chiefly Delhi, Shimla, Lucknow, Jaipur, Mumbai, Goa and Kerala.





WE ARE  
**HANDS-ON &  
RESPONSIVE**  
IN THE WAY WE TEACH



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## HANDS-ON TEACHING

Our degree programs prepare students for the real world and offer the opportunity for practical, hands-on experience, internships and projects. Take advantage of this experience to gain the practical skills employers are looking for and open your mind to career opportunities. Academics at Chitkara University keep pace with workplace demands and ensures that students are 'work ready' and in touch with what is expected in a professional environment.

### **Academic Excellence**

Our academic programs enjoy a great reputation in the industry. To maintain our leadership position, we focus on inducting the best faculty from across the industry and academia. Our faculty is known for its strong academic orientation contributing to the creation of knowledge in a dynamic, ever changing environment. Classes are built around experiential learning where students are pushed to their limits to take conceptual framework and apply them. Teaching methods include lectures and tutorials that emphasize a learning-centric approach and application of knowledge. Faculty brings their broad based experience into the classroom to enrich the learning process and to ensure that coursework reflects current industry practices.

### **Problem Based Learning (PBL)**

Some of our courses are being 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 their text books. Elements of the work situation are brought into the classroom by the PBL approach. Students undertake a series of tasks that bring industry problems into the academic environment.





### **Guest Lectures**

Guest lectures are regularly organised by eminent industry experts, entrepreneurs and HR managers from large and medium sized companies to give information to students on latest trends and happenings.

### **Applied & Project Based Learning**

Applied learning is a hallmark of all teaching at Chitkara University. We believe that the best way to learn is by doing and that's why we emphasize a hands-on approach. We lay stress on project based learning. Thus, the need for independent thinking and creativity is encouraged among students resulting in interesting and novel projects. Further, a significant increase in the open category credits enables students to have a broad base and pursue interests and adopt a multi-disciplinary approach.

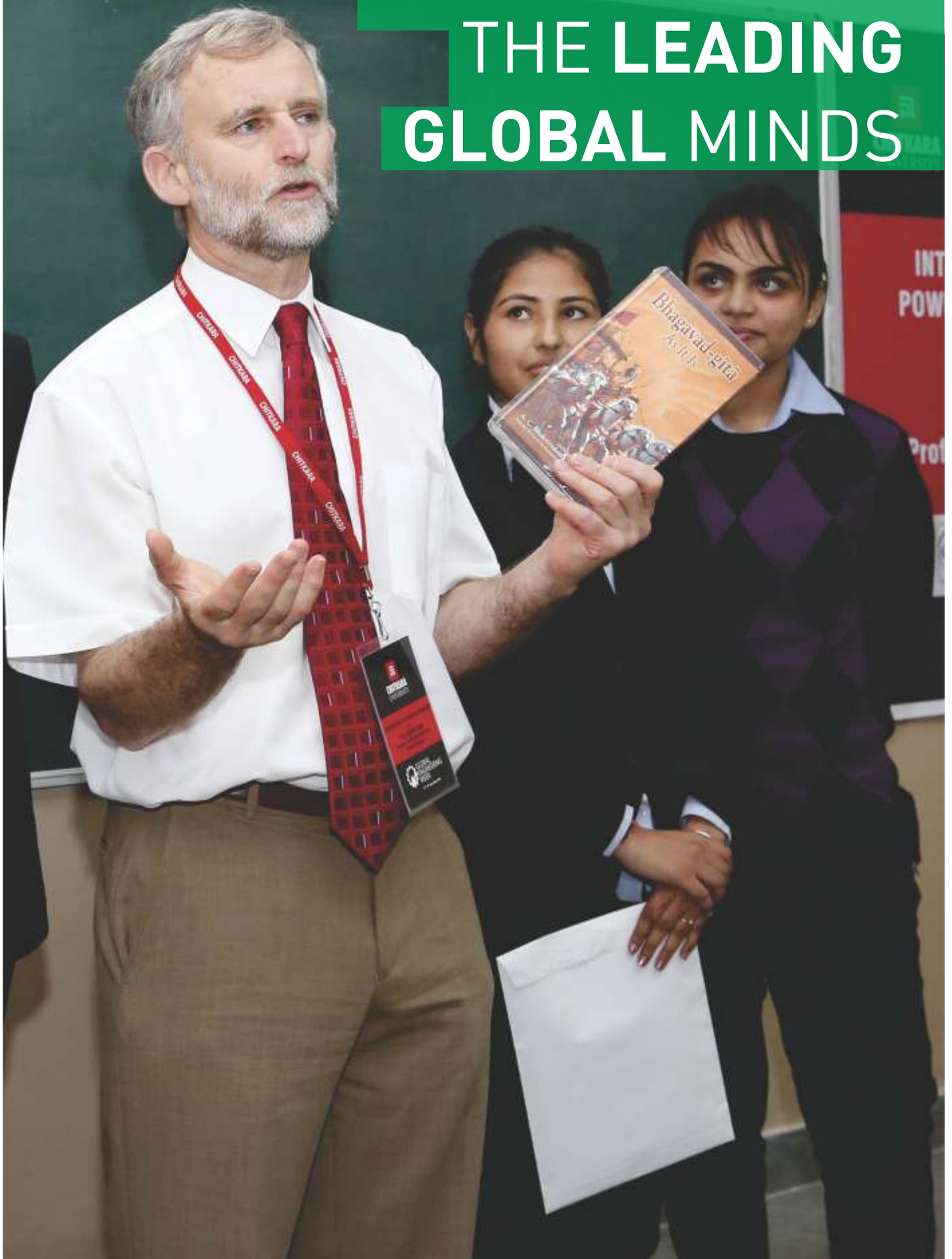
### **Specialisation Options**

In every program, further specialisation and electives are offered in the last 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 in Engineering. Following a particular curricular track will equip a student with the skills needed for progressing further in the chosen career.

### **Faculty**

Chitkara University boasts of strong faculty with Masters and Doctorate degrees in different specialisations with appropriate academic and research blend of mind. The entire faculty has been drawn from leading academic institutions and corporations from across the country with years of teaching and research experience. Our faculty enjoys a good reputation and strong relations with leading industrial houses in terms of consultancy and research work. Our faculty not only focuses on conceptual understanding of various academic concepts but also gives first hand experience to all students through role plays, experiential exercises, industrial visits and classroom lectures.

# INTERACT WITH THE LEADING GLOBAL MINDS







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## EDUCATION THAT WORKS

**Lectures, demos, assignments, seminars, tutorials, laboratory assignments, internships and corporate visits are an integral part of Chitkara Education. Our study methods are continuously developed and new creative ones introduced. Small student groups allow teachers and professors to get to know every student on an individual level.**

Your academic studies will be challenging. We offer the highest quality academic experience and expect you to excel. You will be an active part of a leading academic community where originality, independent thought and enquiry are not only encouraged but expected. You will be studying and working alongside academics who are experts in their fields. Our outstanding and responsive support services will be actively available to you right from the start of your transition to University life, until the end of your degree.

You will be encouraged to become an independent and self motivated learner. This means you will be able to spend your time outside of lectures reading around your chosen subject, formulating your own ideas. This will encourage you to develop an enquiry-based approach to learning, enabling you to challenge ideas and put forward your own opinion.

This approach may be very different to the way you have studied in the past. With the support of your lecturers and tutors, you will learn to adapt to this participative approach and reap the rewards it brings you. Our enquiry based approach enables you to take control of your own learning, encouraging you to develop the skills that employers are looking for.



# INSPIRING AND HIGH QUALITY EDUCATION

## TEACHING METHODS

We have a range of teaching methods, designed so that you can get the most from your studies such as:

### **Lectures**

You will listen to experts sharing their knowledge and discoveries in challenging and encouraging ways. Academics will introduce you to key facts and ideas in your subject. There may be mini activities and pair work to complete later. You may like to take written notes, but most lectures are now recorded, so you can access the information afterwards on the Virtual Learning Environment.

### **Seminars**

In small groups led by academics you will be encouraged to present and discuss your ideas and debate interpretations and opinions with other students.

### **Tutorials**

You will have the opportunity to discuss your work and assignments with your tutor, usually in small groups.

### **Laboratory-Based work**

You will have a chance to get practical experience and apply the knowledge you have developed in your lectures to a laboratory setting. Through these sessions you will learn to expertly analyze real life problems that will equip you with the practical and analytical skills so valued by employers.

### **Workshops**

You will engage in problem solving sessions facilitated by a member of academic staff; these sessions usually involve students working in groups.

### **Self Study**

You will be expected to read around the subject matter of your lectures. Lectures will stimulate your curiosity to find out more through your own independent study and teamwork with fellow students, both before and after the lecture itself.

### **Peer Group Learning**

You will be asked by your tutor to direct a lesson or prepare a presentation with your fellow classmates. By interacting with the lesson material, you will remember the content more effectively.

## CUTTING EDGE EQUIPMENT AND UP-TO-DATE LABORATORIES

Ample, up-to-date computer resources and the newest technology are available to students. Laboratories are equipped with tools used by the industry and businesses making our education future-proof.



WHERE  
LEADERS  
ARE MADE





## COMMUNICATION SKILLS

**ATTITUDE, COMMUNICATION & KNOWLEDGE ARE THREE ESSENTIALS FOR STUDENTS TO SUCCEED IN THEIR LIVES. WE EMPHASIZE MORE ON THESE THREE ASPECTS THOROUGHLY TO MAKE OUR STUDENTS COMPETENT AND CAPABLE PROFESSIONALS.**

We provide a specially designed training program to the students in order to improve their employability skills and to prepare them to face the interview boards more effectively. The objective of this program is to provide the students with an integrated module of personality enhancement emphasizing those areas which are essential for the overall growth and development of a confident and well groomed professional.

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. The survey points out that communication skills, including written and oral presentations and an ability to work with others are the main factors contributing to job success.

At Chitkara University, our qualified in-house trainers for communication skills provide 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.

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# RESEARCH OPPORTUNITIES

**Research at Chitkara University is growing steadily but strongly. Led by successful strategies to develop a vibrant research culture which aligns with and informs our learning and teaching activities. Our goal is to improve Chitkara's research performance by building a critical mass of researchers who will develop a distinctive portfolio of high quality discovery, applied and commercial research.**

The University's approach to its research is differentiated, targeted and welcoming of quality collaborative partners. Our strategies include: concentrating research in areas of strength and excellence; engaging widely with local, national and international institutions, industry and community partners, and all levels of government; establishing and partnering in research centres; appointing researchers who are leaders in their fields; and commercialising applied outcomes.

Both the faculty and doctoral scholars actively involve themselves in research projects. Interdisciplinary research, a system level approach and close ties to industry combine to yield up-to-date research. Strong ties with industry complement these top-notch research opportunities. Through research centre-industry liaison programs and departmental advisory boards, faculty and students are working towards future technologies. Lot of our research initiatives are under the funding consideration from DST and other related agencies.

The students and faculty take part in national/international conferences as well as workshops and seminars in their areas of interest. Faculty are constantly involved in research publications and quality improvements programs. This approach helps the faculty in taking the student imagination beyond classroom teaching to actual scientific exploration.

Chitkara University is one of the two institutions in India that received the prestigious HP Innovation Grant of USD 1,70,000 and one among five selected from Asia Pacific including Japan for creating technology which is accessible to everyone as a way to learn, work and benefit from information.



A male scientist with dark hair and glasses, wearing a white lab coat and a white surgical mask, is working in a laboratory. He is wearing white gloves and is in the process of pouring a bright blue liquid from a graduated cylinder into a beaker. The background is slightly blurred, showing laboratory equipment and a green plant. The text 'VIBRANT RESEARCH CULTURE' is overlaid in the top right corner in white capital letters on a blue background.

# VIBRANT RESEARCH CULTURE



## Library Facilities

Library services at Chitkara University are the cornerstone of our education system. The mission of our library services is to facilitate creation of new knowledge through acquisition, organisation and dissemination of knowledge resources.

The libraries at Chitkara University Punjab have spacious reading hall, periodical centre, group discussion rooms and online database browsing area.

The University libraries offer a wide range of materials in a variety of formatsófrom traditional books and serials to films, multimedia and networked information from around the world. Highly skilled staff assists students to use the local collections and find information on specific topics.

Our libraries are a learning space where students are inspired to explore, research, and create. Our libraries are not only the place to think, but also an informal work area where students gather to collaborate. Social elements include a café and vending machines, lounge areas, and newspapers. Use our libraries to study for exams, finish assignments, and to balance study and work.

Our libraries house a collection of more than 20,000 items including books, journals, microfilms, audio-visual material and CD-ROMs. Furthermore, the students have access to more than 10,000 electronic journals available online.

We have access to a large number of e-resources, ASCE Journals, ASME Journals, IEL online, Science Direct, EBSCO, EMERALD, SCIFINDER, SAE-Tech Papers, Indian Standards Codes, ACM, ABI / Inform Complete (PRO QUEST), Springer Link and Engineering Referex. Our libraries have a Video Conferencing facility and also provide classroom teaching through EDUSAT programs and NPTEL video courses in the different fields of education.











The annual TEDx Chitkara University, an ideas conference with an international perspective run under the banner of TED, the non-profit organisation 'devoted to ideas worth spreading'.



PEOPLE WHO  
**STUDY HERE**  
DO WELL

# OUR INDUSTRY ACADEMIA RELATIONSHIPS

Chitkara University maintains close link with leading corporations and professional associations to deliver most of our professional programs. Through these alliances we stay in touch with industry, ensuring that our courses are relevant, practical and deliver the skills in demand allowing our graduates to hit the ground running. Some of our leading industry collaborations are:



## OUR INDUSTRY COLLABORATIONS

CHITKARA UNIVERSITY HAS ESTABLISHED AN UNASSAILABLE REPUTATION FOR VERY STRONG CAMPUS RECRUITMENT ON THE SHEER VIRTUE OF OUR INTENSIVE FOCUS ON MAKING ALL OUR GRADUATES ÌINDUSTRY READYÏ.

- Marquee companies such as ARM, Cadence and NXP Semiconductors are supporting us in terms of supplying state of the art equipments for best hands-on classroom training.
- nVIDIA which is one of the leading companies in the parallel computing space has granted the status of "CUDA teaching Centre" to Chitkara University.
- Infosys Campus Connect and Wipro 10X Mission has provided us an important framework for our Engineering curriculum Strong linkages with Industry leaders such as CISCO, Ericsson, Dassault Systems, National Instruments & Oracle to develop and deploy industry-relevant curricula on various technologies for our Engineering curriculum.
- Our program in Mechanical Engineering has been endorsed by leading companies such as Mahindra, Rasco, Dassault Systemes, Tata Technologies And Bosch.
- Chitkara Business School is offering a unique 2 year MBA program in Human Resource management with Manpower Group which is the leading manpower consultancy in the world.
- Joint management programs with BSE Institute has helped us initiate academic programs in the realm of financial sector knowledge.
- Our program in supply chain management works towards bridging the huge skill gap prevalent in the logistics industry through our industry partner, Safexpress, India's largest supply chain & logistics company.
- All degree programs offered by the School of Health Sciences are in collaboration with Fortis Healthcare which is one of the leading healthcare providers in Asia.
- Our Optometry programs are fully endorsed by Sankara Healthcare which is one of the leading eye care chains in the country.
- The curriculum and program structure for all our Journalism and Mass Communication has been inspired and adapted from the UNESCO Model Curricula for Journalism Education.
- Strong Association with leading media corporations such as ZEE Network and other media companies has been a great support in redefining our programs in Mass Communication.









THE START  
OF SOMETHING  
**BIG**

## OUR CAMPUS RECRUITERS

SINCE INCEPTION, CHITKARA UNIVERSITY HAS A PATH BREAKING RECRUITMENT RECORD FOR GRADUATES FROM VARIOUS ACADEMIC PROGRAMS. SOME OF THE PROMINENT RECRUITERS ON CAMPUS ARE:

			
			 HINDUSTAN LEVER LIMITED
	 CONSULTING TECHNOLOGY ENTERPRISE		
			 YOUR GLOBAL KNOWLEDGE PARTNER
			 ITC Limited
		 Speed.Agility.Imagination	
		 The Power of Dreams	 Hotels Resorts and Palaces



## CAREER SERVICES

**We offer our students comprehensive opportunities to occupy themselves with questions around their career planning right from the beginning of their studies. A broadly diversified choice of career activities accompanies them during their studies and offers numerous networking opportunities with company representatives and alumni.**

### **Focus on Careers**

Chitkara prepares students for the real world and fulfilling careers. With industry representation our course continues to keep pace with real world practice making our students work-ready the moment they graduate.

### **Mentoring**

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.

### **Student Support Services**

Our Career Centre provides personal career counselling, extensive career development seminars and invaluable assistance in developing one's resumes that showcase his/her skill and experiences.

### **Networking**

Smart graduates require tapping into network of people, technology and information. At Chitkara, you are connected with world-class faculty, savvy technocrats and innovators. Technical workshops with guest speakers from the industry are held regularly to acquaint you with the latest happenings.

### **Internships**

At the end of every academic year, most students are provided opportunities to pursue internships to gain some real world practical experience. Emphasis is placed on ensuring that students attending the program are placed in rewarding, real-world company assignments that extend the learning experience into areas that are not available at the University. Most of our degree programs offer the opportunity for practical, hands-on experience, internships and projects within the local community. This is why our graduates are in demand.





Specialize further with exchange programs

Work placements and internship

Volunteering

Personal development program

**BUILD  
YOUR  
DREAM  
CV**

Advice from Alumni

Careers event

Network with top employers



# CHITKARA INNOVATION INCUBATOR

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Chitkara Innovation Incubator was initiated in the year 2013 with a sprawling 15,000 sq ft facility next to Rajiv Gandhi Information Technology Park, Chandigarh which is the prime destination for major blue chip companies such as Infosys, Tech Mahindra and Airtel.

Chitkara University is a place of original thinkers; nurturing and stimulating inquisitive minds to produce graduates with innovative ideas, perspective and approaches.

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

This Innovation Hub will be one-stop shop for know-how. Entrepreneurs across Chitkara University can access seed capital opportunities, one-on-one mentoring, pro-bono support services, feedback from entrepreneurial experts, and capacity-building workshops covering everything from legal liability to effective marketing to entrepreneurial finance.

It is a community, a nexus point where innovators at Chitkara can meet, interact with other innovators, and learn from peers, all of whom are driven to create lasting positive change. That community includes undergraduate and graduate students, faculty, staff and alumni across any discipline.

**Some of the companies which have made Chitkara Innovation Incubator are**

**trideal.in**  
OUR TRICITY. YOUR SAVINGS

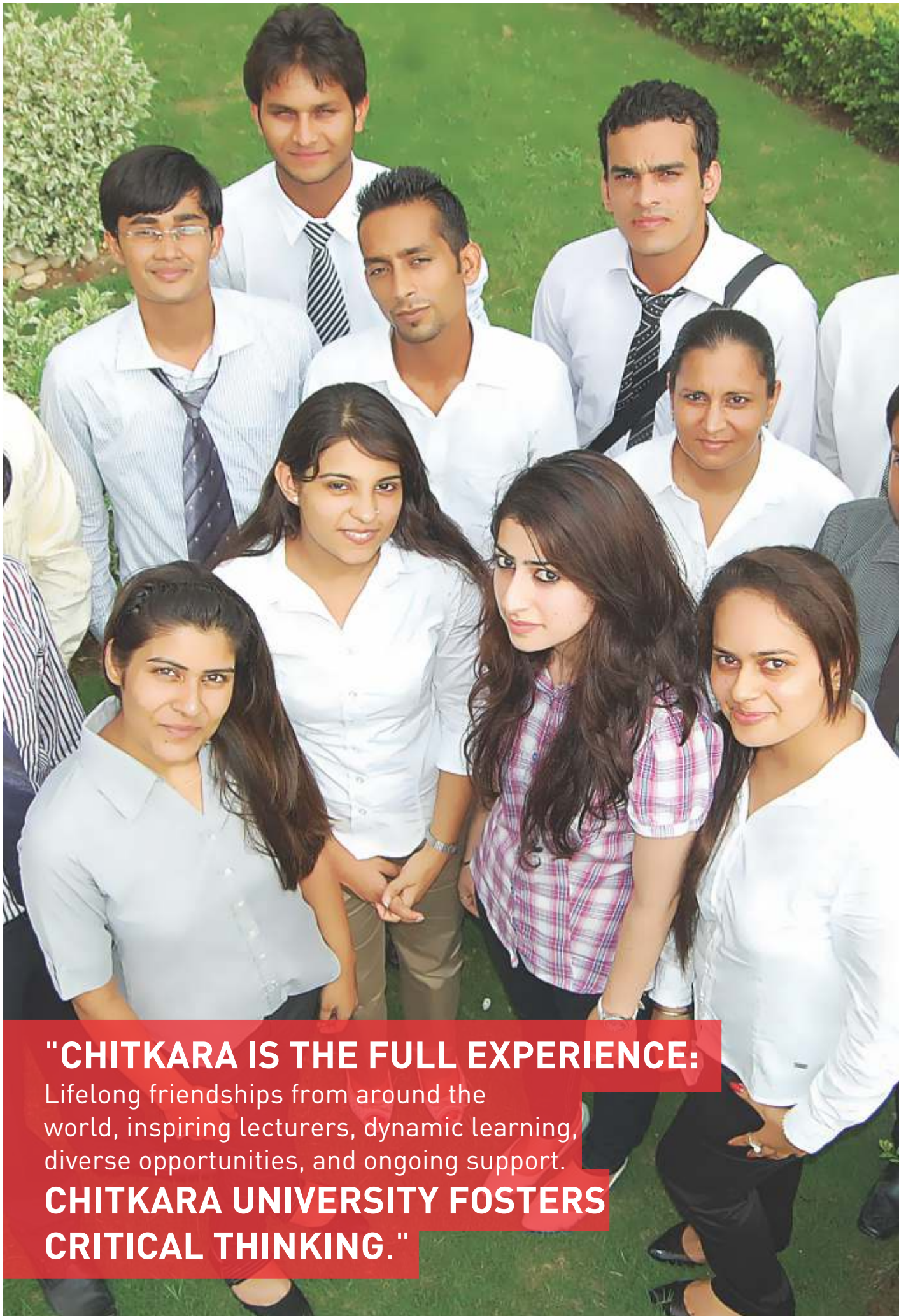


# IDEATE INNOVATE EXCEL



Chitkara Innovation Incubator is always looking at encouraging students to become entrepreneurs and regularly facilitate interaction with angel investors and start up mentors.





**"CHITKARA IS THE FULL EXPERIENCE:**

Lifelong friendships from around the world, inspiring lecturers, dynamic learning, diverse opportunities, and ongoing support.

**CHITKARA UNIVERSITY FOSTERS  
CRITICAL THINKING."**



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# CHITKARA ALUMNI NETWORK

**The net is not a net until it begins to work. Work your network today through us.**

The main components of the **CHITKARA ALUMNI NETWORK** mission are to enable alumni, students, faculty and staff to maintain their contact with the University and each other for their shared benefit and for the vital support and development of CHITKARA UNIVERSITY. One of the strongest bonds that survives with our students over the years is the class bonding and CAN provides a forum to strengthen the bond over the years. We have CAN chapters in Chandigarh and New Delhi and upcoming chapters in Pune, Mumbai, Bengaluru and many other cities in India.

## **Alumni to Alumni**

Find old friends and connect to other alumni. Join our official Chitkara Alumni Network page CAN and become a part of a huge global community.

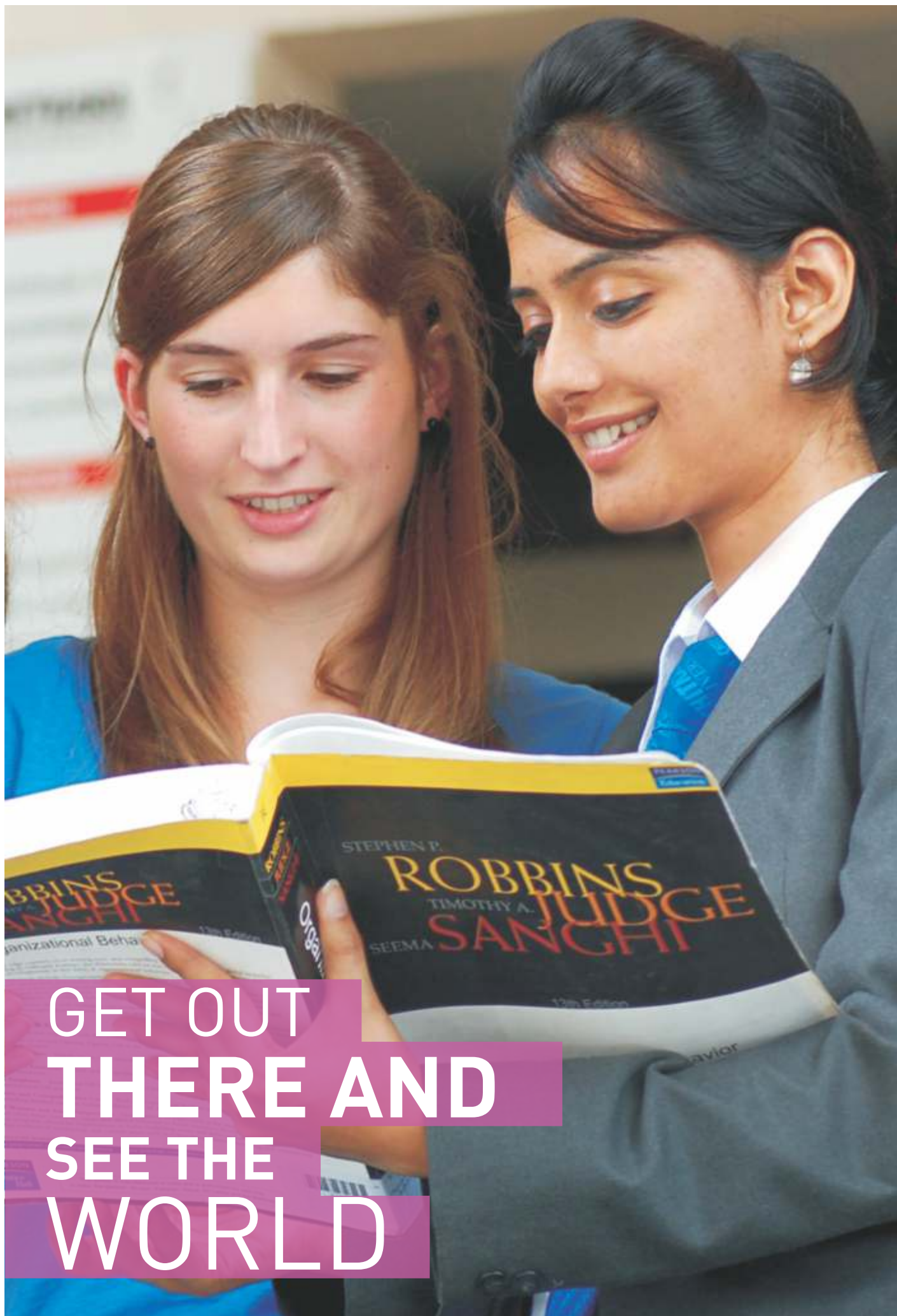
## **Alumni to the World**

Our Alumni discover business opportunities through Chitkara Alumni Network all over the world and across industries.

## **Career Services**

The career services maintains a close relationship to the alumni who significantly support on-campus activities and also help finding national and international job/internship positions. CAN helps our students stay in contact and dialogue with us, take part in the manifold events we offer them, make use of the various information services and actively engage with words and deeds.





GET OUT  
THERE AND  
SEE THE  
WORLD



# THE GLOBAL UNIVERSITY

Internationalisation and globalisation are key characteristics of today's environment. The world has become a 'Global Village' where economical, political, social and cultural dimensions are tightly intermingled. Such a platform offers not only considerable opportunities but also higher complexity. One must prepare for the future by anticipating the challenges and having a vision for the wide-ranging possibilities.

Chitkara University is prepared to face these new challenges, responding to professional and international commitments, by educating and training students and managers to be 'Global Ready' for tomorrow's world and by helping them in developing skill sets desired by future employers.

As a consequence, celebrating diversity, preparedness for international careers and 'Being Global' are embedded in our organisational culture at Chitkara University.

## **The International Experience**

Combining an international education and study abroad experience is a strong asset in today's marketplace. It gives candidates a huge competitive advantage but also greatly contributes to students' personal development.

Students from Chitkara University enjoyed unforgettable experiences during their study abroad programs, such as semester exchange and summer school programs, at partner universities in countries like Germany, France, South Korea, England and USA.

We, at Chitkara University, believe that combining a state of the art education and study abroad experience is strongly desired in today's marketplace; it enhances candidates' professional, global & intercultural 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.

## **Our Unique Global Network**

Chitkara University has established a unique network of more than a 50 partner universities and educational institutes 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.

## **Our International and Supportive Study Environment**

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

**CHITKARA UNIVERSITY STUDENTS ARE EXPOSED TO A HOST OF INTERNATIONAL PROGRAMS WHICH RESULTS IN A TRULY "GLOBAL" PROFESSIONAL.**

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# STRONG INTERNATIONAL FOCUS

**Programs taught in English by local and international faculty, student exchanges from partner universities all over the world, international research co-operation, dual-degree and twinning program development by international partners, international faculty exchange; all of these are key features of Chitkara University.**

## **Twinning Programs**

Chitkara students have option to finish the last 1/2 years of their degree programs at our partner Universities which helps them gain Dual degrees in they chosen specialisations.

## **Semester Exchange**

Students visit Partner Universities for six months to one year for completing their semesters abroad.

## **Summer Programs**

Summer Program is short duration program of 15 days to one month on various specialisations. It adds to the international exposure of the students.

## **International Competitions**

Students participate in competitions conducted by several institutions & organisations at International Level such as MUN.

## **International Conferences**

Students participate in International conferences that help them to experience International academic standards.

## **Leadership Camps**

Student based leadership camp for 15 days or more and as off now the students generally travels to South Korea.

## **Study Based Scholarships**

Partner Universities offer full year scholarships and semester long scholarships to students through which study is absolutely free for the students for those terms.

## **International Faculty**

We regularly invite faculty from accredited Institutions across the world and it helps our students to understand diverse Education standards



# THE EXCHANGE EXPERIENCE







# Global Connections

CHITKARA UNIVERSITY HAS STRONG AGREEMENTS FOR FACULTY AND STUDENT ACADEMIC EXCHANGE WITH TOP EDUCATION PROVIDERS ACROSS THE WORLD. SOME OF THE MAJOR INSTITUTIONS ARE

## ASIA

### SOUTH KOREA

- Soongsil University
- Kookmin University
- Korea University(Sejong Campus)
- Kongju National University
- Chung Ang University
- Kyung Hee University
- Sookmyung Women's University
- Hanbuk University
- Chonbuk National University
- Kyungpook National University
- Chosun University
- Sangmyung University
- Jungwon University

### CHINA

- Qilu University of Technology
- Zhejiang University of Science & Technology
- Qingdao Technological University Qindao College

## INDONESIA

- Binus Univesity
- Telkom University

### TAIWAN

- China Medical University
- Providence University

### MALAYSIA

- HELP University

## AUSTRALIA

- Deakin University
- Edith Cowan University
- Flinders University

## SOUTH AMERICA

### BRAZIL

- The Pontificia Universidade Catolica DO Rio Grande Do Sul

## NORTH AMERICA

### U.S.A

- Central Michigan University
- University of Florida
- Purdue University
- San Diego State University
- University of Massachusetts, Lowell
- Missouri University of Science and Technology
- Northern Illinois University
- Northern Arizona University
- Portland State University

### CANADA

- George Brown College
- British Columbia Institute of Technology
- Kings University College at Western University
- University of Prince Edward Island (UPEI)
- Vancouver Island University
- Georgian College



## MEXICO

- Universidad Autonoma Deestado De Hidalgo

## EUROPE

### U.K

- Glasgow Caledonian University
- Anglia Ruskin University

### NETHERLANDS

- Fontys University of Applied Sciences

### SPAIN

- University of Alicante

### FINLAND

- Helsinki Metropolia University of Applied Sciences

## GERMANY

- Cologne Business School
- Karlshochschule International University
- Hochschule Osnabruck University of Applied Sciences Osnabruck
- Duale Hochschule Baden Wurttemberg (DHBW)

### BELGIUM

- IHECS

### PORTUGAL

- Politecnico De Coimbra

## FRANCE

- ESIGELEC ñ School of Engineering Rougen
- Ecole Pour Lí Informatique Et Les Techniques Avacees- EPITA
- EM Normandie
- Kedge Business School
- Institute Dí Etudes Politiques De Toulouse
- Sciences Po Lille
- ISTIA-Universite Angers
- Université Montpellier 2 Sciences et Techniques









# LEARNING IS FUNDAMENTAL

Chitkara University in a nutshell? - Cool vibes, great events and excitement all year round, sports, theatre, excursions, always somebody home next door. That is it.













# STUDENT LIFE 2.0

Student life at Chitkara University is more than just ardent toil next to a big pile of books. The wide range of clubs and students associations, as well as the surrounding environment, provides memorable experiences ranging from culture to sports & fitness.











# CHITKARA COLLEGE OF PHARMACY

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# CHITKARA COLLEGE OF PHARMACY

Established in the year 2005, Chitkara College of Pharmacy (CCP) is approved by All India Council of Technical Education (AICTE) and Pharmacy Council of India and is offering full time Bachelor of Pharmacy (B.Pharm) & Master of Pharmacy (M.Pharm) programs.

Chitkara College of Pharmacy has been designed to be the centre of excellence for Pharmaceutical Sciences in North India. The profession of pharmacy has transformed into a hub for the "Global Healthcare" and evolved as a multidisciplinary, multifaceted curriculum. Its involvement is deep as it has an important role in all events: from discovery of new drug molecule to its evaluation, development, approval for human consumption, manufacture and every other important aspect.

Our academic system has been framed taking into consideration the responsibility of students to meet the demands of hi-tech pharmaceutical industry, at the same time ensuring that they confidently serve the requirements of patient care and pharmacy practice.

Since its inception, we have made conscious efforts to inculcate research aptitude in its students at all levels to keep them abreast of the requirements of the industry. The efforts are visible in the sizeable number of publications at both national and international level. Through the years, the Institute has been able to establish strong bonds with the industry at local as well as national levels for training and placement activities.

## **Association/Agreements of Chitkara College of Pharmacy**

- Cito Healthcare, Hyderabad For M. Pharm pharmacology/ clinical research students' research projects
- Clinfox International, CRO, Hyderabad For M. Pharm pharmacology/clinical research students' research projects.
- University of Ibadan, Ibadan, Nigeria Collaboration on research projects and faculty and student fellowships.
- Anjaneya Pharma, Mahad Collaboration on bulk drug design and synthetic research projects and Ph.D. programs.
- University of Florida, USA Collaborative academic courses.

# FORMULATING SUCCESS





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# PHARMACEUTICAL STUDIES

All our full time Master's & Bachelor's programs in Pharmacy comprise of the following core areas of study and additional support courses as under:

## **Pharmaceutical Chemistry and Analysis:**

These are related scientific discipline at the intersection of chemistry and pharmacy dealing with designing and developing pharmaceutical drugs and also with analytical topics that help develop basics about quality management of raw materials and finished pharmaceuticals.

## **Pharmaceutics:**

It's the discipline of pharmacy which deals with all facets of the process of turning a new chemical entity into a medication able to be safely and effectively used by patients in the community. Apart from techniques to manufacture orthodox tablet, liquids and injectable formulations, the subject has evolved so much over the years that many Novel drug delivery Systems including dermal and mucosal patches, targeted delivery systems, antibody based delivery systems and other prolonged release minimal dosage formulations have become extremely common.

## **Pharmacology:**

It's the study of how chemical substances interact with living systems. The field encompasses study of drug composition, drug properties, interactions, toxicology, & desirable effects that can be used in therapy of diseases. Other subjects, viz., Anatomy and Physiology and Pathophysiology are a prelude to pharmacology helping the students to develop the knowledge of intricate functioning and make up of human body and disease processes. Clinical Pharmacology details effective use of medicines in human body and management of various disease conditions.

## **Pharmacognosy:**

It's the study of medicinal products in their crude, or unprepared form as directly obtained from plants, animals and other natural sources.. It includes the study of the physical, chemical, biochemical and biological properties of drugs, drug substances as well as the search for new drugs from natural sources which includes separation and identification of phytoconstituents from plants, conversion into semisynthetic derivatives and standardisation of multicomponent herbal formulations.

Additional elective integrated projects are a part of the curriculum to help students understand using knowledge from different subjects to carry out pharmaceutical research.



### **B.Pharm Plus**

4-Year program with a difference

Undergraduate program with a strong pharmaceutical industry focus and intensive practical exposure for a period of 6 months and more.

### **B.Pharm Plus M. Pharm**

6-Year Dual Degree Program

An integrated program leading to B. Pharm & M. Pharm, with diverse range of specialisation based on the needs of Pharma industry. Additional exposure to value added certification programs such as Regulatory Affairs / IP / Clinical Research.

### **Pharm D**

6-Year Doctoral program

A Postgraduate Doctoral program with a strong pharmaceutical industry focus and intensive practical exposure.

### **M.Pharm Plus**

2-Year program with a difference

Postgraduate program with a strong pharmaceutical industry focus and intensive practical exposure for a period of 6 months and more with specialisations in Pharmaceutics / Pharmacology & Pharmaceutical Technology.



### **M.Pharm Plus Ph.D**

A combination of PG & Research (Integrated Doctoral Program)

Students enrolling for M. Pharm can pursue a doctoral program without taking a break from the course. Financial assistance will be offered to meritorious students.



## MASTER PROGRAMS

### 2-Year Master of Pharmacy Programs

For this academic year we are offering the following two-year master degree programs:

- M. Pharm (Pharmaceutics)
- M. Pharm Pharmaceutical Technology)
- M. Pharm (Pharmacology)
- M. Pharm Pharmacy Practice (Clinical Research and Clinical Pharmacology)

#### **M. Pharm (Pharmaceutics) and M. Pharm (Pharmaceutical Technology)**

The M. Pharm (Pharmaceutics) and M. Pharm (Pharmaceutical Technology) Programs lead to specialisation in formulation development, manufacturing technology, and process development areas, which are essential specialisations for manufacturing of traditional and novel drug delivery systems.

The first year involves theoretical and practical sessions in the following areas: dosage form design; advanced pharmaceutical methods of analysis; drug regulatory affairs; biopharmaceutics and pharmacokinetics; dosage form technology; advances in industrial pharmacy; and novel drug delivery systems. The second-year projects touch upon formulation development, stability studies, and process validation for traditional and novel drug delivery systems.

Some of the areas that have been taken-up by various batches since 2009 include hydrogels, microemulsions, microspheres, nanospheres, nanosuspensions, gastroretentive systems, solid-solid and solid-liquid dispersed systems, and development of modified accipients.

Continuous interaction with industries including Nectar life Sciences, Abbott Healthcare, Unichem, Jubilant Clinsys, Arbro Pharma, Dr Reddys Labs and other organisations for academic, conferences and placements is a special feature during the course.





### **M. Pharm (Pharmacology)**

This Program leads to specialisation in pharmacology, which is an integral part of the drug discovery and drug design processes. These processes deal with the identification of lead molecules that could have potential therapeutic activity due to specific molecular and receptor affinity, and analogous structure to specific sites and proteins in the body.

In the first year the Program covers theoretical and practical sessions in the subjects molecular pharmacology; general pathophysiology; pharmacology and pharmacotherapeutics I and II; clinical research methodologies; advanced pharmaceutical methods of analysis; drug regulatory affairs; quality assurance and biostatistics; and other subjects.

In the second year of the Program students take-up several projects that are aimed at developing and exploring novel receptor targets, and mechanisms for drug action in the pathophysiological stages of the disease.

### **M. Pharm Pharmacy Practice (Clinical Research and Clinical Pharmacology Branch)**

This Program offers a specialisation in the clinical drug development methodologies, its regulations, and control. Once the safety and efficacy of a novel chemical entity is established for a drug compound in preclinical animal studies, it is put through the process of clinical development. This is where the drug is studied for safety, efficacy and dosing in increasing numbers of human population setting through Phase I-IV clinical trials.

The branch offers exposure to subjects on principles of pharmacology and therapeutics; clinical research methodologies; clinical DRUG development; advanced pharmaceutical methods of analysis; drug regulatory affairs; recent advances in pharmacology; quality assurance and biostatistics; and other subjects.

The second-year clinical projects are done in hospital inpatient /outpatient settings either in association with a clinical research organisation or a pharmaceutical company.



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## Pharm. D.

### 6-Year Doctoral Program in Pharmacy

(Approved by Pharmacy Council of India, New Delhi)

From the academic year 2014, we started offering the 6 year Pharm.D which is an innovative combination of degree, masters and doctoral course combination that not only saves your time but offers you bright career prospects. It's a post-graduate professional doctoral degree and the student gets authorization to use prefix Doctor(Dr) to his name.

The Doctor of Pharmacy(Pharm.D) program at Chitkara University will prepare students to provide high quality pharmaceutical care that has the patient as its focus and optimal drug therapy and health as its goal. The program stresses knowledge of the chemical, biological, social, and clinical sciences that underline pharmacy, an understanding of the relevance of that knowledge to patient care and the skills to apply that knowledge to specific care circumstances.

Pharm. D. graduation is a post graduate professional doctoral degree. It was introduced to improve clinical and hospital pharmacy services in India and it is the only pharmacy service which is in direct contact with patient health care system and authorized to take critical decisions in in-patient prescription. The Pharm. D. degree requires five years of classroom and hospital based didactic study. It is followed by one year of internship training in a hospital setting for Clinical Management of In patients, in addition to ongoing practicals and research project. Pharm. D. students and graduates are actively participating in direct patient care in hospitals.

#### **Program Objective**

The Pharm. D. curriculum is designed to produce a scientifically and technically competent pharmacist who can apply this education in such a manner as to provide maximum health care services to patients. Students are provided with the opportunity to gain greater experience in patient close cooperative relationships with health practitioners. It is the goal of all pharmacy schools to prepare pharmacists who can assume expanded responsibilities in the care of patients and assure the provision of rational drug therapy.



## Program Structure

Some of the Important subjects taught in the various semester of the 6-Year program are as follows

- Human Anatomy and Physiology
- Pharmaceutical Inorganic Chemistry
- Community Pharmacy
- Pharmacology
- Pharmaceutical Formulations
- Biostatistics & Research Methodology
- Pharmacoepidemiology and Pharmacoeconomics
- Pharmaceutics
- Pathophysiology
- Pharmacognosy & Phytopharmaceuticals
- Pharmaceutical Analysis
- Hospital Pharmacy
- Biopharmaceutics
- Clinical Pharmacokinetics & Pharmacotherapeutic Drug Monitoring

## Career Opportunities

Pharm. D. qualification, as prevalent in U.S, U.K, Canada, other European and developed countries, entitles the pharmacists for prescribing medicines and the doctors role is focused mainly on diagnosis. Also, with a Pharm. D., a person can register as pharmacist all over the world and can practice as Hospital/Clinical/Community pharmacist anywhere, and also as Clinical scientific expert, Clinical research associate and Associate in pharmacovigilance program.

- Hospital Pharmacist
- Specialized Area Opportunities
- Managed Care
- Community Pharmacy
- Knowledge processing outsourcing (KPO)
- Clinical Pharmacist
- Pharmacy Education
- Home Health Care
- Clinic Pharmacy Practice
- Community Pharmacist
- Pharmacoeconomics
- Governmental Agencies

All the jobs related to Hospital/Clinical Pharmacy etc in European/American and other countries are highly paid due to the authority to the Pharmacist to take up the prescription and clinical monitoring of admitted patients where the physicians focus on diagnosis and operative care and medical prescription is supervised by Pharmacists.





## ACADEMIC FACILITES

High-tech well equipped labs in the departments of Pharmaceutical Chemistry, Pharmaceutics, Pharmacology and Pharmacognosy serve as a strong framework for our graduates to help them develop capabilities to become world class pharmacists and scientists.

Important in-house projects and research work is taken up in the labs that is academically as well as socially productive. The classroom and laboratory infrastructure is backed and supported with well furnished Seminar Halls and Conference rooms where presentations on Scientific and other topics are organized by faculty members and students.

The institute has sophisticated manufacturing and analytical equipments including:

- High Performance liquid Chromatography (HPLC) machine
- FTIR Spectrophotometer
- USP Dissolution apparatus
- Multistation tablet Punching Machine
- Fluidised bed Drier
- R M granulators
- Lyophiliser
- Laminar flow Bench
- Refrigerated centrifuge
- Ultrasonicator
- Microscope with camera

Pharmacology equipments include pole climbing apparatus, actophotomete, electroconvulsimeter, water maze, chymographs, tail flick apparatus, Histamine Chambers etc. All labs are well furnished with appropriate number of glassware, chemicals and additional preparation & technical staff support rooms.

### **Chitkara College of Pharmacy – Analytical Testing Services**

Chitkara College of Pharmacy provides following facilities for research in pharmaceutical sciences:

- Analysis of Samples for Infrared and UV Spectrophotometric Data.
- HPLC Analysis.
- Dissolution and Other Formulation Studies.
- Analytical Method Development.
- Pre-clinical Evaluation.



## CAREER OPTIONS

Blue Chip multinational and national Pharma companies including Ranbaxy Labs Ltd, Cipla, Pfizer Ltd and Eli Lilly have been the leading campus recruiters for our Pharma graduates since the year 2009.

With a good placement record for the batches passing out since 2009, and many students opting for higher qualifications (M Pharm/MBA either in India or abroad), it is clear that the Pharma program has managed to carve a niche of its own. We have established an unassailable reputation for providing on-campus recruitment opportunities in diverse areas in the Pharma field including production, QA, Marketing/ Retail and Hospital Pharmacy & our sheer virtue of intensive focus on making all our graduates "industry ready".

A career in pharmacy, unfolds a vista full of opportunities leading to a golden future for a young career aspirant such as.

### **Research & Development**

Mainly M. Pharms & PhDs are in great demand in the various areas of Pharmaceutical R&D. Areas where professionals are required are:

#### **New Drug Discovery Research (NDDR)**

Discovering a new drug has assumed prime importance in the post-GATT era where a pharmaceutical company has to ensure that it is selling original research products.

#### **Process Development (P&D)**

One of the important areas in bulk drugs industry is developing viable processes for the manufacture of drugs and intermediates for their commercial production.

#### **Formulation & Development (F&D)**

The success of any pharma company lies in the quality of its products, i.e., its formulations & dosage forms and constant research is required to develop new products that are more patient compliant. Formulation development ensures this.

#### **Clinical Trials, Bioequivalence studies, Toxicological Studies**

These are some of the areas of clinical research which are in high demand as they are involved in the systematic evaluation of potential drug substances prior to getting them approved by the authorities.

 A Promise for Life	 Answers That Matter.		
			
			

### Production & Manufacturing

A pharmacy professional can work as a production person, involved in the production of bulk drug and intermediates or formulations and dosage forms. Industries in the cosmetics, soaps, toiletries segment, dental products, blood and plasma products also hire pharmacy professionals.

### Analysis & Testing

Quality control (QC) and Quality Assurance (QA) are the most integral areas of the drug and pharmaceutical industry. Highly specialized and trained staff is required to handle sensitive analytical procedures & sophisticated equipment.

### Marketing

The Pharma Sales & Marketing is a highly technical field & offers excellent opportunities for the pharmacy graduates. The pharmacy graduates are absorbed as product executive or managers and can progress through group product manager and brand manager positions and rise to national level manager status.

### Hospital Pharmacy

Another opening for a Pharmacy professional is "Registered Pharmacist" in the hospitals or drug stores. This is a very sought after profession especially in countries like the U.S.A., Canada, middle east and European countries. The trend is already set in many hospitals in the country. This is a key position and the Pharmacist plays an important role from preparing prescription to the patient's medical history after the medical doctor has diagnosed the disease.

### Academics

Excellent opportunities for the professionals are available in teaching profession also. Besides teaching Academic related opportunities involve positions on Research Posts and Training programs, Documentation, Library Information Services & Pharma Journalism. The regulatory affairs as well as, patenting processes and Issues involve a lot of documentation work to be done and submitted to the concerned regulatory authorities, in a highly specialized and technical manner.



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