

**EXPLORE**

**STRONG**

**100%**

**NOVA**

**INK**



**CHITKARA**  
UNIVERSITY



# 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 K 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 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 in **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.”

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# CHITKARA UNIVERSITY PUNJAB

Chitkara Educational Trust established its Punjab campus in the year 2002 on 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.

## 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 MCA (Lateral)
- 3-Year BCA
- 5-Year Integrated BCA-MCA
- 3-Year ME Fellowship Programs
- M. Sc. Mathematics (Fellowship)

### CHITKARA SCHOOL OF PLANNING & ARCHITECTURE

- 5-Year B. Arch.

### CHITKARA COLLEGE OF HOTEL MANAGEMENT & CATERING

- 3-Year B. Sc. (HMCT)

### CHITKARA COLLEGE OF PHARMACY

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

### CHITKARA SCHOOL OF MASS COMMUNICATION

- 4-Year BJMC
- 2-Year MJMC

### CHITKARA BUSINESS SCHOOL

- 2-Year MBA in Marketing
- 2-Year MBA Finance & Banking
- 2-Year MBA (Healthcare) in collaboration with **Fortis Healthcare**
- 2-Year MBA (HR) in collaboration with **ManpowerGroup**
- 2-Year MBA (Financial Markets Practice)
- 3-Year B. Com (Hons.)
- 3-Year BBA

### CHITKARA SCHOOL OF HEALTH SCIENCES

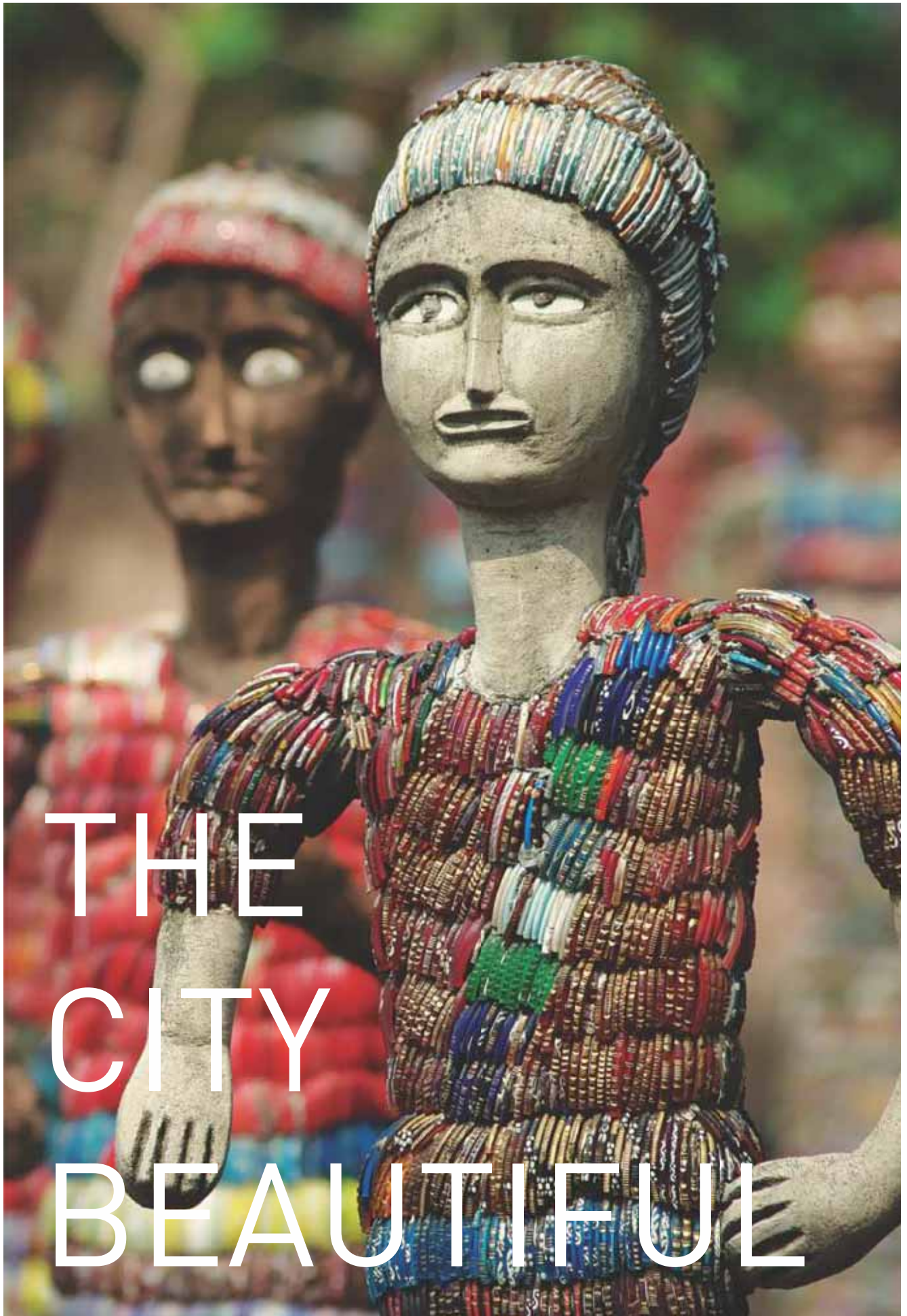
- 4-Year B. Sc. Nursing
- 3-Year B. Sc. (Allied Healthcare)
- 4-Year B. Optometry

### CHITKARA COLLEGE OF EDUCATION

- 1-Year B. Ed.
- 2-Year ETT







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 'Times' 15 best Asian spots. 'Times' 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's 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.

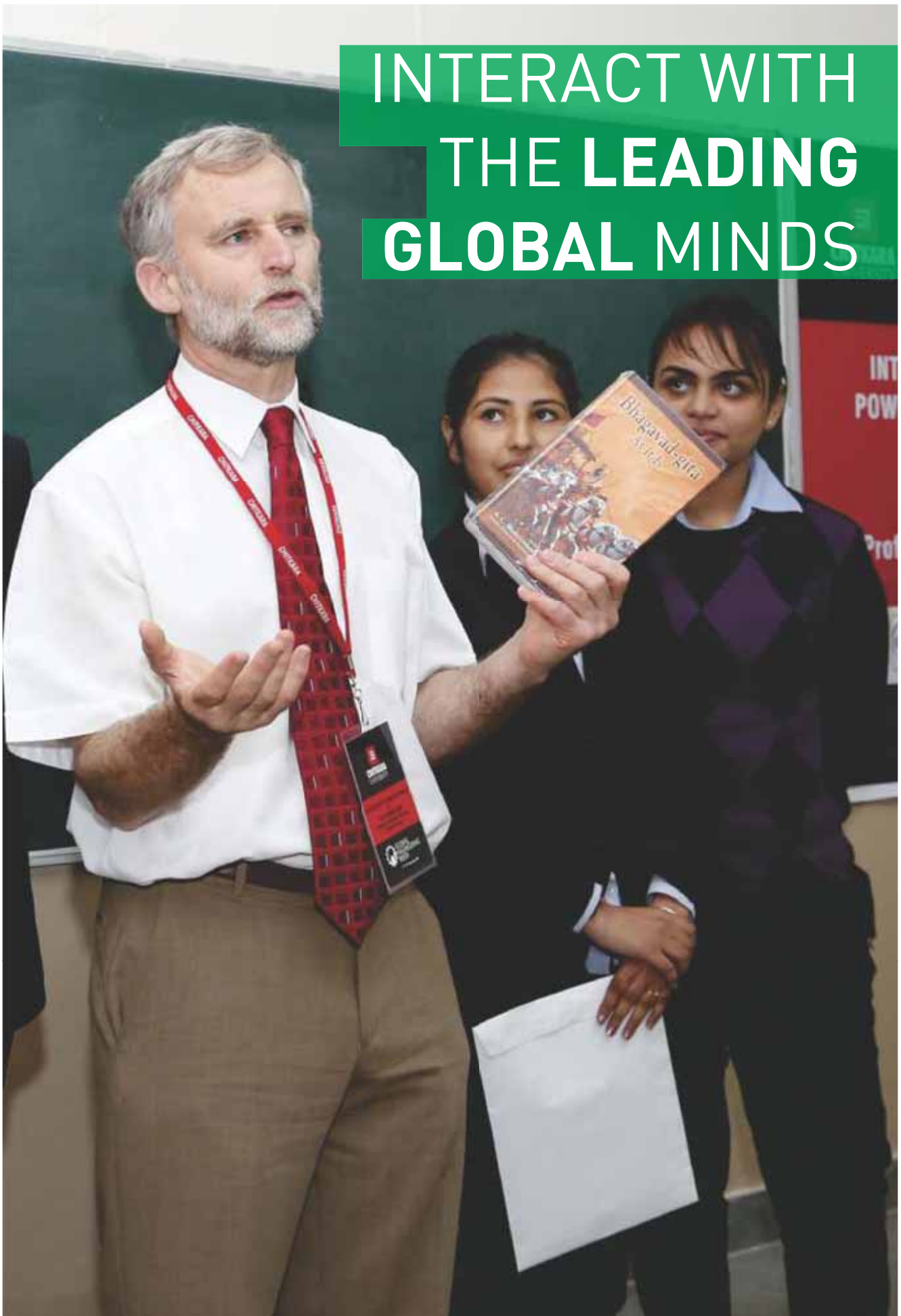
### **Specialisation Options**

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.



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# 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.

LEARN  
ANYWHERE  
ANY TIME



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# TECHNOLOGY IN LEARNING AND TEACHING

**Chitkara University has an intensive focus to guide its faculty in the appropriate use of technology to enrich teaching and learning. Latest technologies drive our classrooms, labs, and other learning environments.**

Chitkara University faculty takes advantage of information technology to enrich the educational experience of their students by creative and innovative uses of technology in courses to actively engage learners in acquiring and assimilating the core principles and experiences of a discipline.

## **MOOC (Massive Open Online Courses)**

At Chitkara University we supplement our academic curriculum with some innovative courses delivered with the MOOC platform like **COURSERA & EDX**. With these platforms our students get the benefit of connecting with the best faculty of some of the leading universities of the world. In the coming years Chitkara University would like to be in the forefront of online education in India.

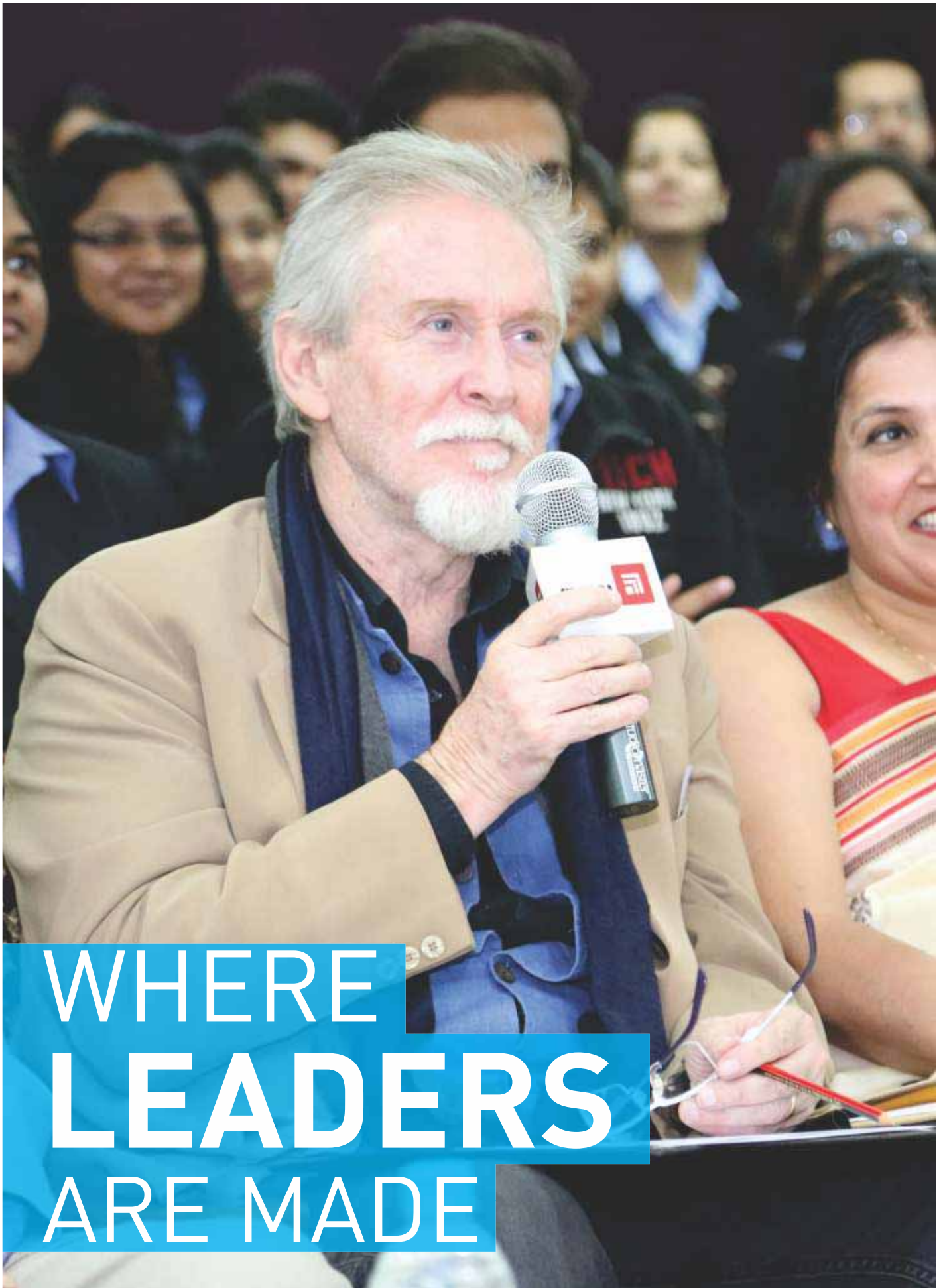
## **Collaborative Platforms for Teaching and Learning**

When such a huge and growing part of teaching and learning happens digitally, it is crucial to have platforms that foster both collaboration and communication. We work to design, provide, and maintain a wide variety of platforms here at Chitkara University that support multiple pedagogical approaches and allow opportunity to extend far beyond the walls of the classroom. Our aim is to help faculty explore the ever-changing nature of teaching with technology.

## **University Management System**

Chitkara University has implemented Chalkpad's UMS solution which allows administrators, teachers, students, parents and alumni to easily connect, communicate, share information, and manage information. Chalkpad works actively with our faculty, staff and students of Chitkara to identify new and effective ways to use technology in completing their academic goals.

Critical information relevant to the students is made very effective through this powerful information management solution. Chalkpad helps parents to stay abreast with their ward's progress – with e-mail updates and on-line access to time-table information, marks/grades, fee payment details, attendance information, important notices from the University and comments from the faculty .



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 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.



# 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.

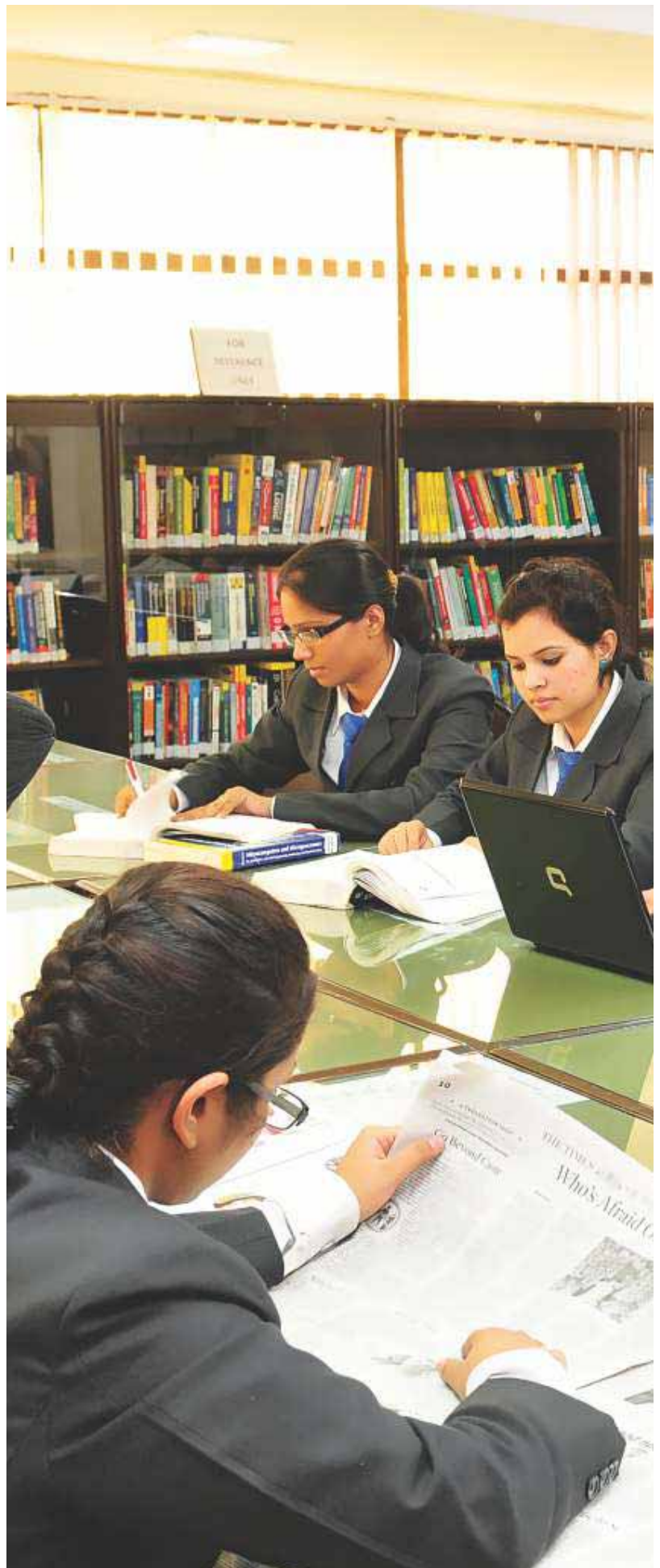
The libraries at each of the campuses have spacious reading hall, periodical centre, group discussion rooms and online database browsing area.

The University libraries offer a wide range of materials in a variety of formats—from 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

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## 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:

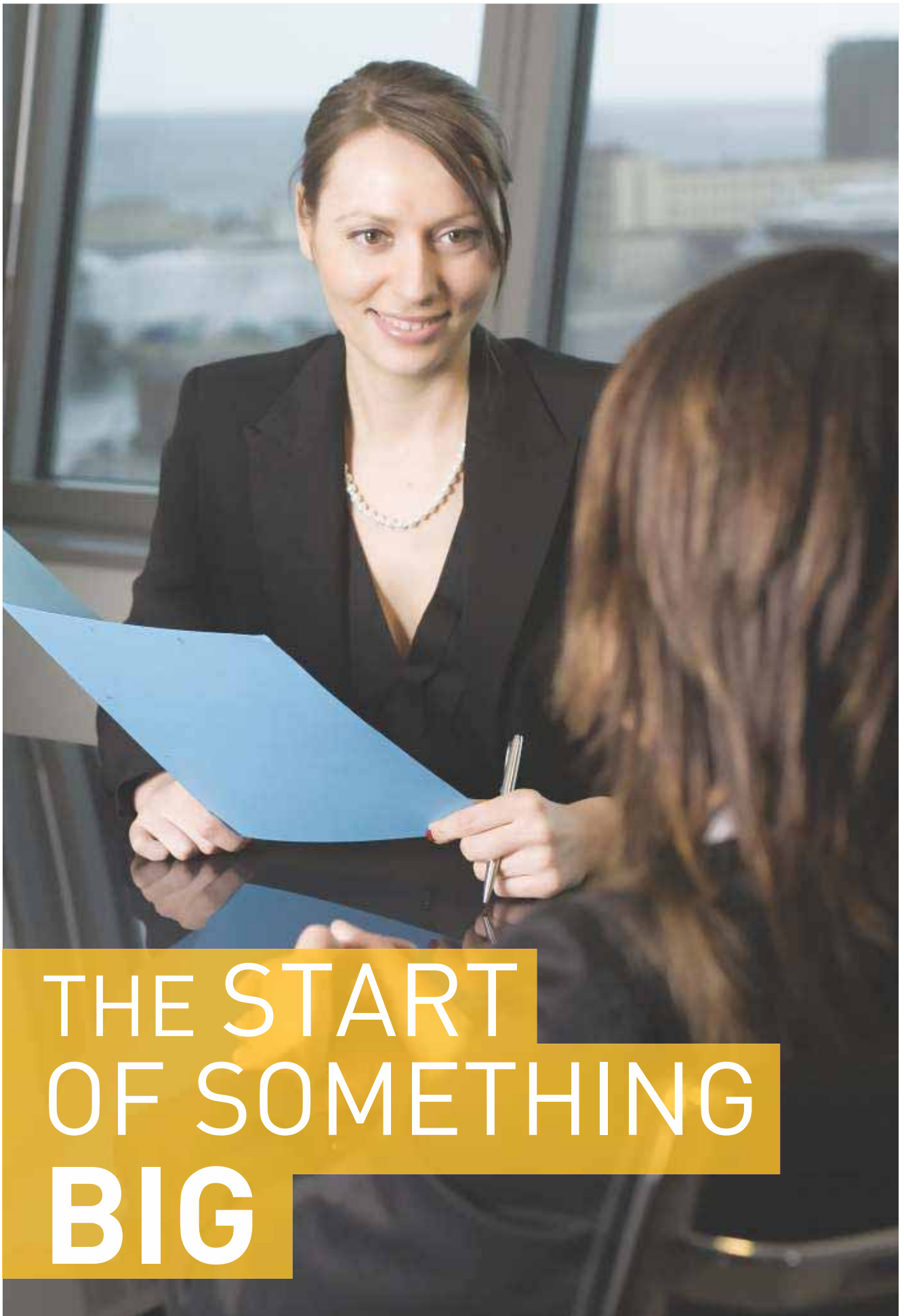
			
			
			
			
			

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## OUR INDUSTRY COLLABORATIONS

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 “INDUSTRY READY”.







- 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.
- 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 Financial Technologies (FTKMC) has helped us initiate academic programs in the realm of financial sector knowledge.
- 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:



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## 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.





Advice from Alumni

Specialize further with exchange programs

Work placements and internship

Careers event

**BUILD YOUR DREAM CV**

Volunteering

Network with top employers

Personal development program

# 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**

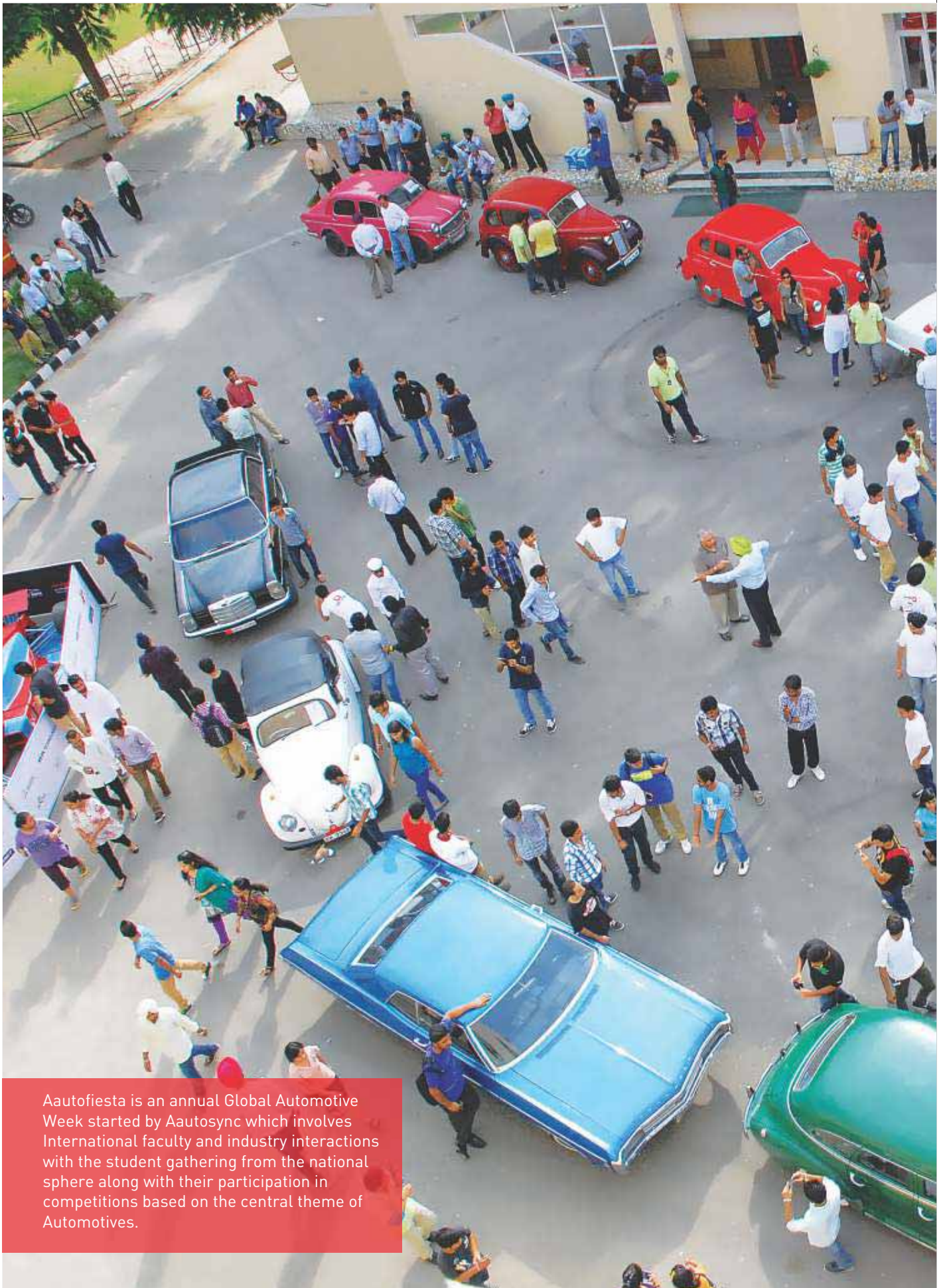
**trideal.in**  
OUR TRICITY. YOUR SAVINGS



# 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.

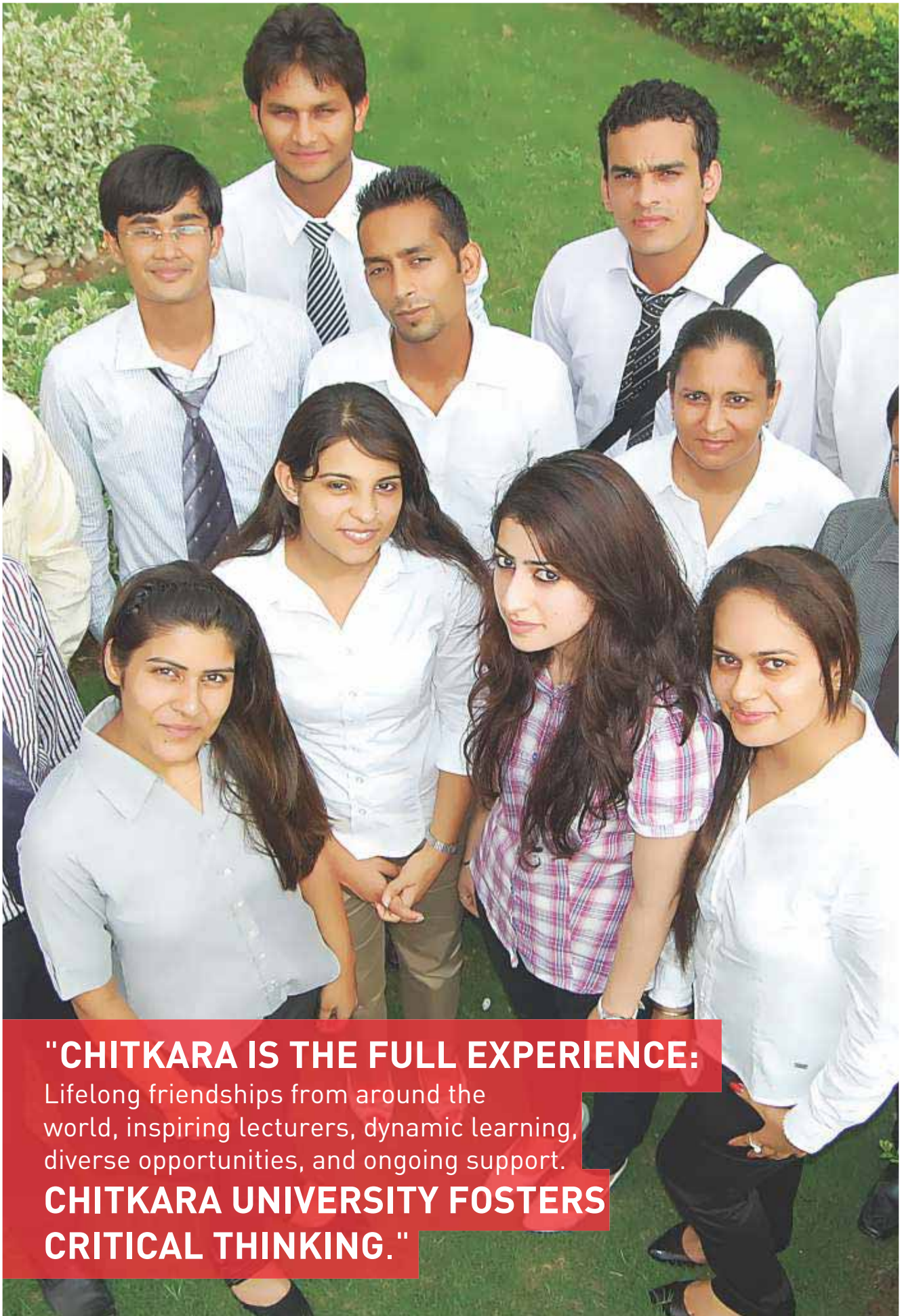


Aautofiesta is an annual Global Automotive Week started by Autosync which involves International faculty and industry interactions with the student gathering from the national sphere along with their participation in competitions based on the central theme of Automotives.

An aerial photograph of a car show. In the center, a yellow convertible is surrounded by a group of people. To its right is a pink vintage car. Further right is a dark green vintage car. In the foreground, several motorcycles are parked, including a white one, a yellow one, a red one, and a green one. People are walking around the vehicles, some taking photos. In the background, a building with large windows and a paved area with more people are visible.

# **A AUTO FIESTA**

incept | endeavor | create



**"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**

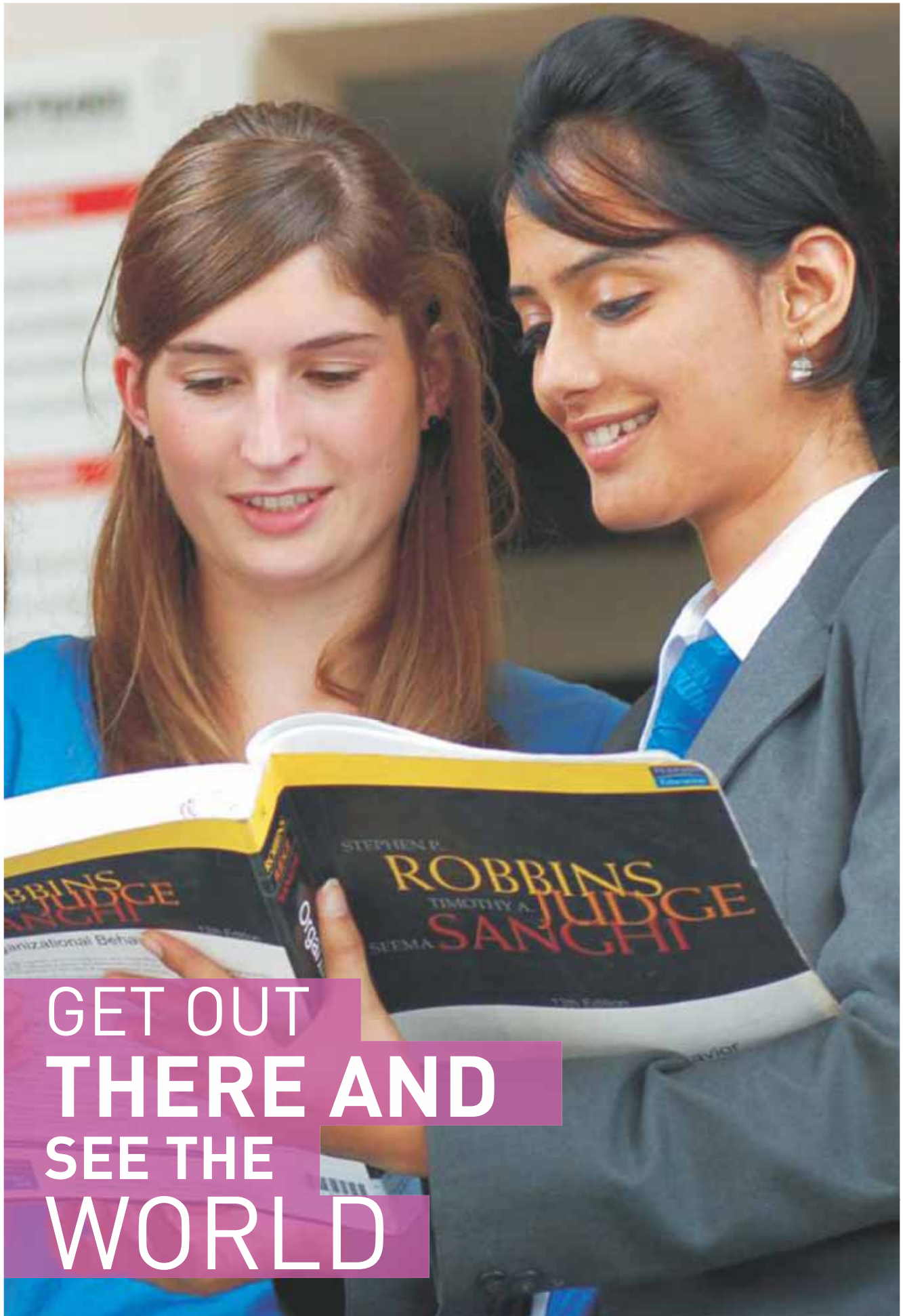
Find old friends and connect to other alumni. Join our official Chitkara Alumni Network page CAN and become a part of a huge global community.

## **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





# 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

### CHINA

- Qilu University of Technology
- Zhejiang University of Science & Technology

### INDONESIA

- Binus Univesity

### MALAYSIA

- HELP University

### TAIWAN

- China Medical University
- Providence University

## 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

## 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

### CANADA

- George Brown College
- Concordia University
- University of Ontario Institute of Technology
- University of Prince Edward Island (UPEI)
- Vancouver Island University



## AUSTRALIA

- Deakin University
- Edith Cowan University
- Flinders University

## SOUTH AMERICA

### BRAZIL

- The Pontificia Universidade Catolica DO Rio Grande Do Sul(PUCRS )

## EUROPE

### U.K

- Glasgow Caledonian University

### NETHERLANDS

- Fontys University of Applied Sciences

### SPAIN

- University of Alicante

### GERMANY

- Cologne Business School
- Karlshochschule
- Hochschule Osnabruck University of Applied Sciences Osnabruck

## FINLAND

- Helsinki Metropolia University of Applied Sciences

## FRANCE

- ESIGELEC – School of Engineering Rouen
- Ecole Pour L' Informatique Et Les Techniques Avacees-EPITA
- EM Normandie
- Kedge Business School
- Institut D' Etudes Politiques De Toulouse
- Sciences Po Lille
- Universite Angers
- Université Montpellier 2 Sciences et Techniques





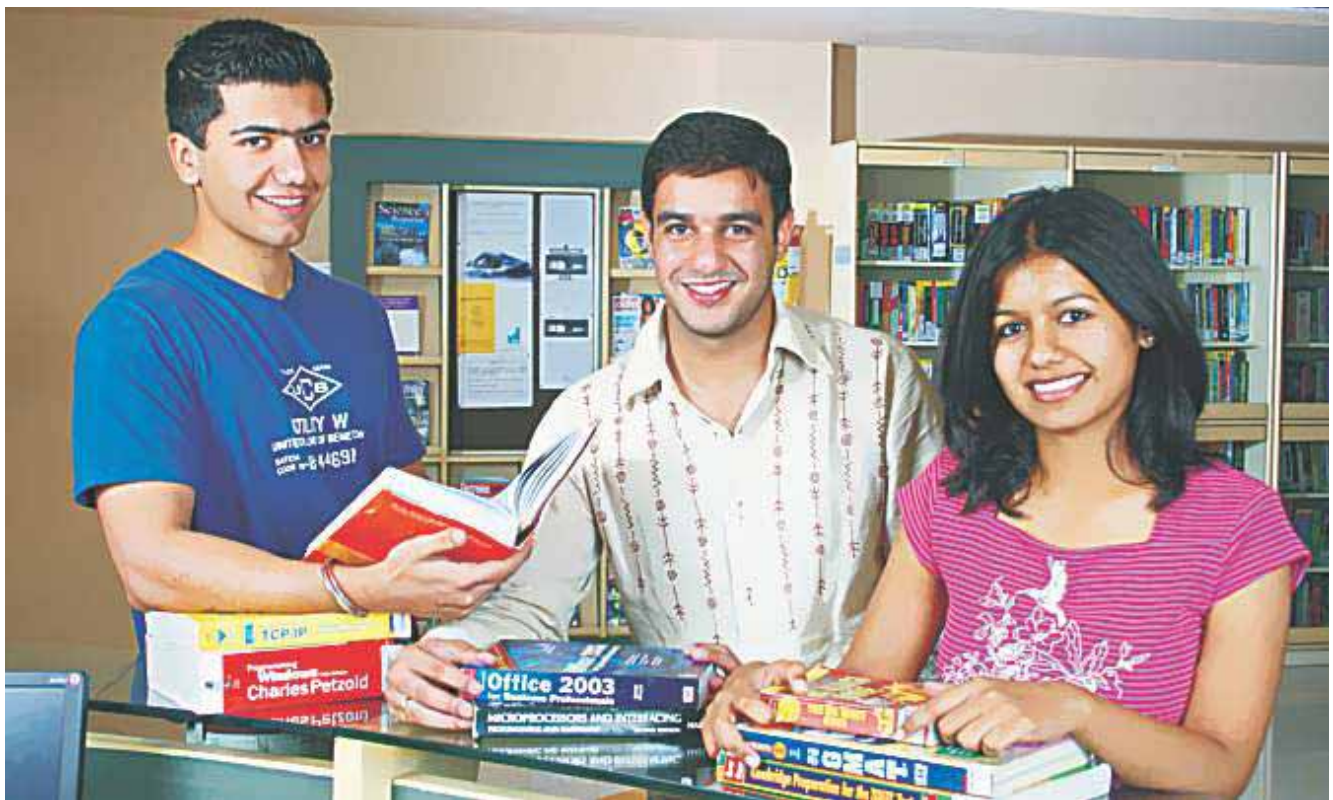


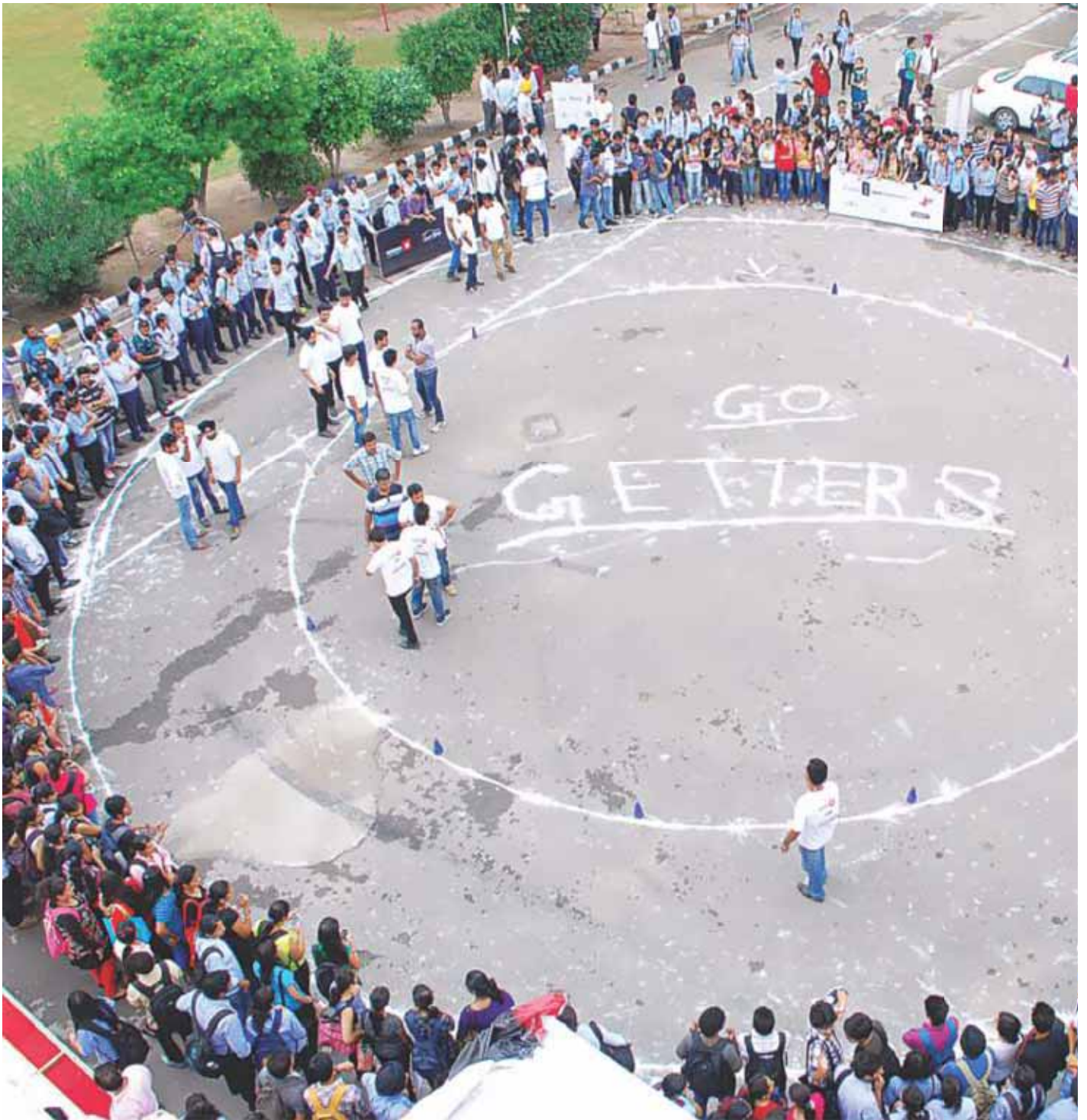
# GREAT PLACE TO STUDY

You will be part of a diverse community located in an inspirational campus setting, with access to one of the most multicultural cities in India. The world-class facilities, rich cultural assets and wealth of sporting opportunities will support and enhance your learning experience. You will relish your stay at Chitkara University, and friendships you make and the experiences you share will shape your future.











# 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 extreme sports.





# 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.







# SPORTS AND FITNESS





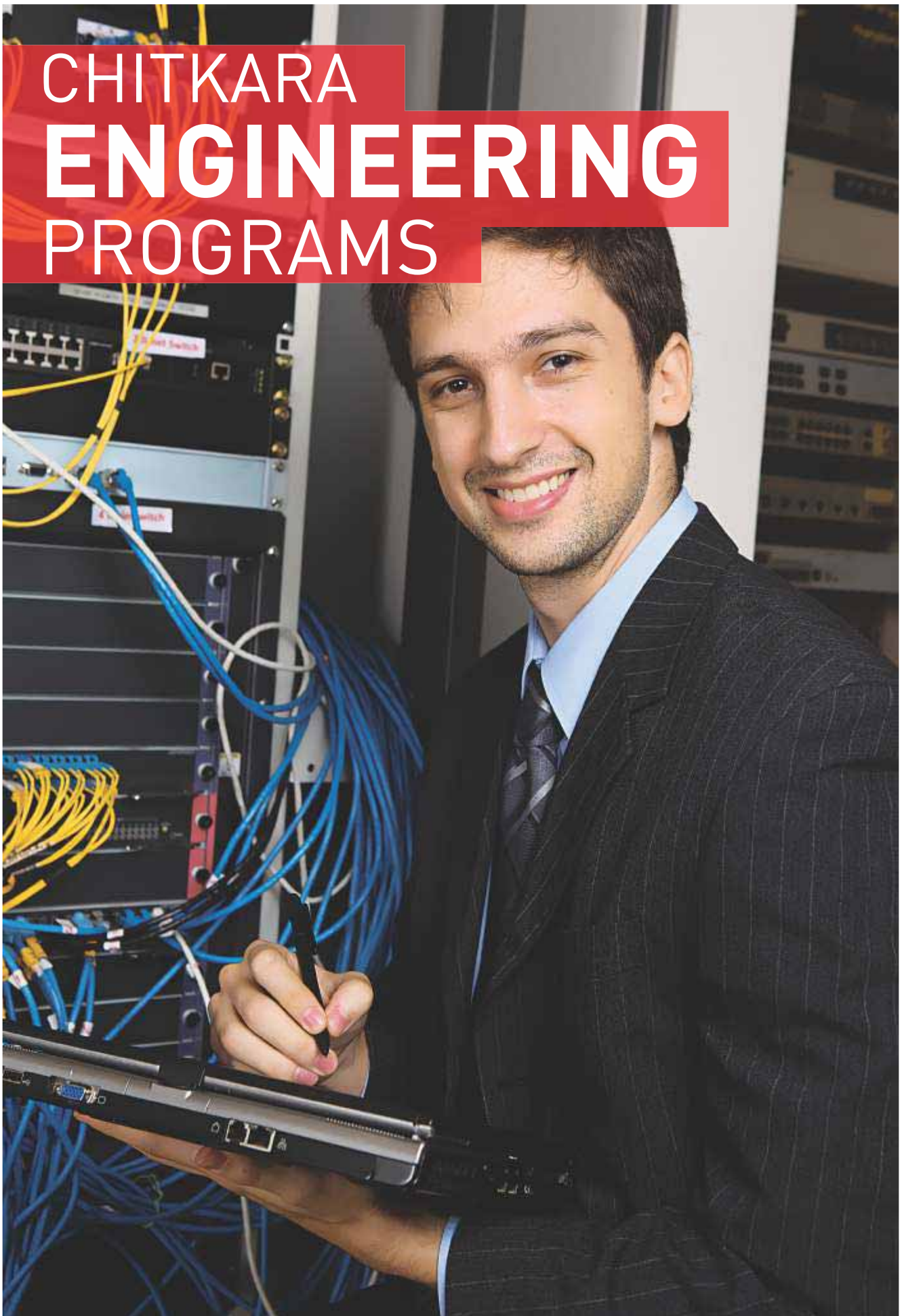




# CHITKARA ENGINEERING EDUCATION

CHITKARA INSTITUTE OF ENGINEERING & TECHNOLOGY

# CHITKARA ENGINEERING PROGRAMS





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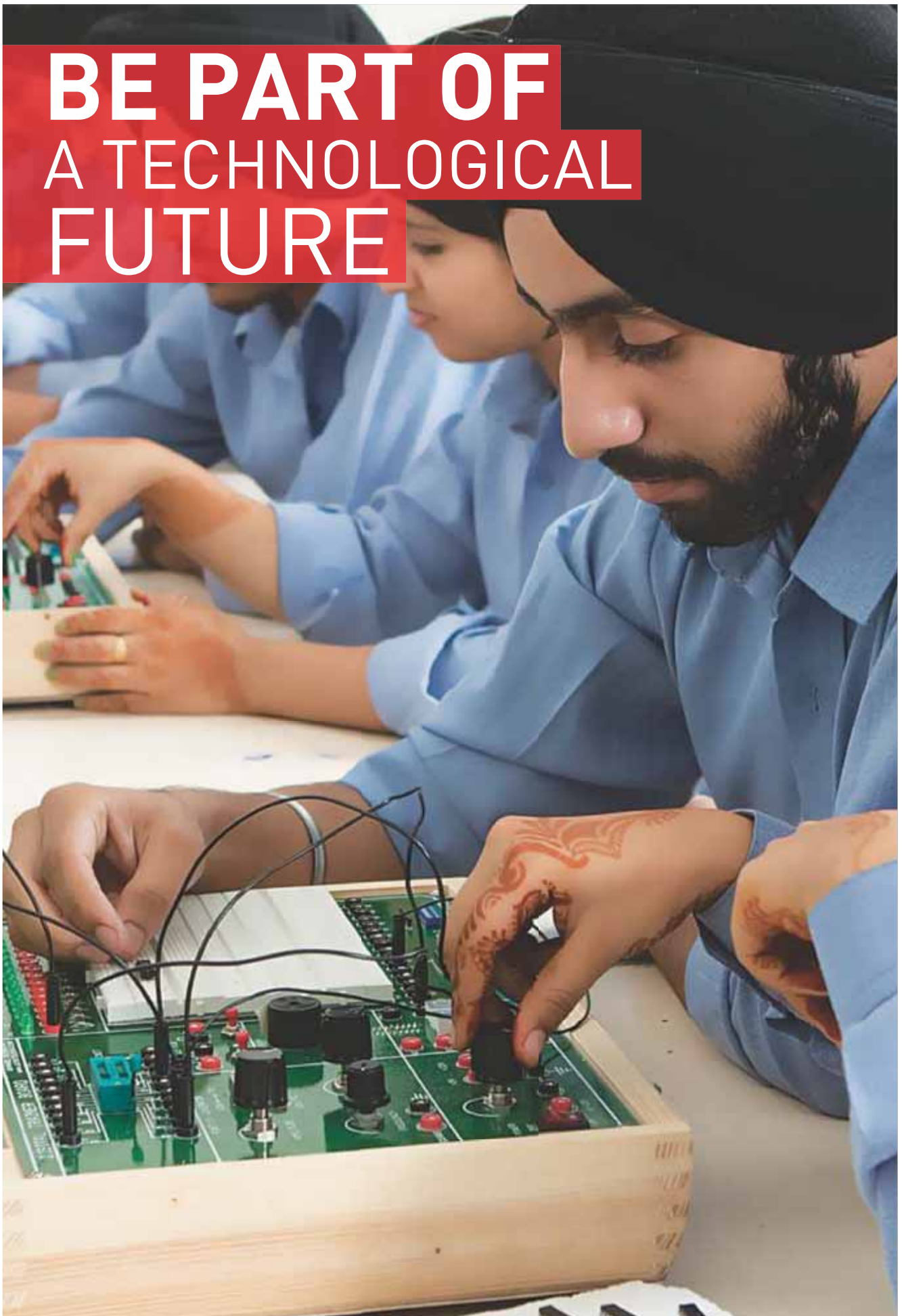
## CHITKARA ENGINEERING EDUCATION

**Creating, inventing, innovating, attacking challenges, solving problems, improving the quality of life—these are the driving forces for Engineers. The Engineer’s ingenuity is a driving force in our society. From space stations to microsystems, the potential for innovative engineering is endless. If you’re wondering what the future might look like, Chitkara Engineering programs can show you the way.**

Engineering programs were initiated in the year 2002 with the sole focus to prepare students from all backgrounds for careers as Engineering in a rapidly changing, technology-driven society. **Within a decade, our Engineering programs have emerged as among the top 50 of the country which speaks volumes about our strong academic heritage, innovative teaching methodology and proactive industry collaborations.**

Our courses enable you to develop your Engineering knowledge, skills, imagination and experience to the highest levels in readiness for your future career. The Engineering programs at Chitkara University combine classroom and laboratory learning in technical areas with a broad liberal arts curriculum and industry assignments to give you an Education tuned to the 21st century wavelength. We are dedicated to giving you an exceptional Engineering experience with knowledgeable and engaged faculty and the latest equipment and technology.

# BE PART OF A TECHNOLOGICAL FUTURE



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# Chitkara Institute of Engineering & Technology (Punjab)

Chitkara Institute of Engineering & Technology was established in the year 2002, has become the first choice among the student community in North India and this fact has been reinforced by being consistently ranked in the top 50 private Engineering colleges in the country. With the establishment of Chitkara University, CIET became one of its constituent institutions and is now on its way to achieve higher benchmarks in Engineering Education.

For the academic year 2014 we are offering the following programs:

## **4-Year Bachelor of Engineering (B.E.) Programs in**

- Computer Science & Engineering
- Electronics & Communication Engineering
- Mechanical Engineering

## **2-Year Master of Computer Applications (MCA) Lateral**

## **5-Year Integrated BCA-MCA**

## **3-Year Bachelor of Computer Applications(BCA)**

## **M.Sc. Mathematics (Fellowship)**

## **3-Year Master of Engineering (M.E.) Fellowship**

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# SO WHAT DOES IT TAKE TO BECOME AN ENGINEER?

## Technical Excellence

As a **top-50 Engineering school** of the country, it's given that you will be challenged technically at Chitkara University. Our students take Engineering classes from day one, as well as calculus and other technical electives. Classes normally have a lecture, a lab, and practical. We offer undergraduate degrees in four traditional disciplines: **Civil Engineering, Electronics & Communication Engineering, Mechanical Engineering, and Computer Science & Engineering**. All our programs are accredited.

## Exploration and Innovation

Our students must have the ability to think for themselves. Chitkara students are passionate and focused. Our students all have that drive—the need to investigate and ferret out solutions, to build, to invent, to design, to develop. Not only do we recognize it, we welcome you to bring it on!

We prioritize teaching students how to bring their ideas to fruition, not just by enhancing technical skills, but by teaching them how to foster innovation. We teach students to manage the process, to make sure that you have the skills to take your ideas to the highest possible level. We know you have the passion; we will teach you how to harness and apply it.

## Intellectual Curiosity

At Chitkara, you should expect more than a course schedule and books. We want you to get your hands dirty. Majority of our students participate in research during their undergraduate years. You will be given opportunities to work with faculty and can even apply for financial support for your own research projects.

## Communication Skills

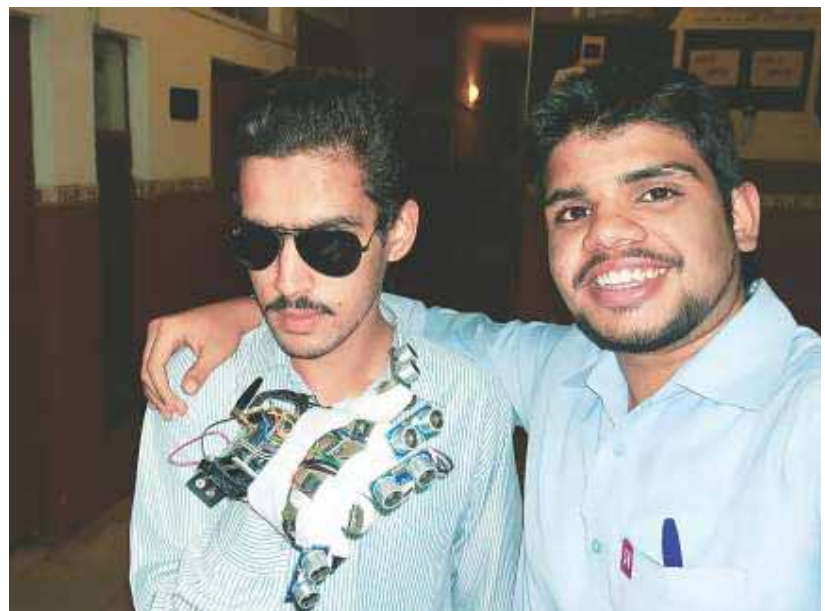
The stereotypes of engineers are a thing of the past. Students who graduate from Chitkara must be capable of articulating their ideas, contributing successfully in teams, and working collaboratively with non-engineers, such as product designers or business managers. To manage projects, to solve problems, to partner on ideas, to successfully advance your career.

Verbal and written communication is also essential to being a world class engineer. You can have the best idea in the world, but if you can't articulate it, it probably isn't going very far. Chitkara students are required to fulfill general education requirements that include intensive focus on communication skills.

# START SOMETHING BIG



- 2nd Best Innovation for the Blind at IMeche DCVI, Hong Kong
- 1st prize in Startup competition at Rendezvous, IIT Delhi
- Most Profound Innovation Award at IIT Gandhinagar
- 3rd Place in Best Startup competition at Illinois University, U.S.A



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# HALLMARKS OF OUR ENGINEERING EDUCATION

At Chitkara University, Engineering students receive a quality education that prepares them to advance the frontiers of technology. Through our “hands-on” curriculum, students design and construct all-terrain vehicles; design, build and load steel bridges; produce computer animations and video games; and harness the power of the sun to race cars that they design, build and test. Our Engineers don't just learn theory – they expand upon it and apply it.

- **Engaging Student centric Education** dedicated laboratories allows students to combine their practical and theoretical studies beginning in their first year and continuing throughout their four year program.
- **Courses have compulsory projects** as part of the curriculum. Students are engaged in engineering design from the first year itself.
- **Size and educational philosophy.** Our students have competed in many national and international design projects like solar car, mini-Baja, steel bridge and video game design.
- **Small Classes allow faculty to provide for individual attention.** Students learn in small groups, receive hands on experience every semester and participate in faculty research projects.
- **CU facilities include a number of instructional and research laboratories** including the Microsoft Innovation Centre, nVidia CUDA Teaching Centre, NXP Semiconductors Signal Lab and Dassault Design Centre.
- **Students can participate in research projects** of national character and work with blue chip companies such as Google, Texas Instruments & Hewlett Packard (HP) as well as the state governments.
- **Study abroad opportunities** are an integrated part of our Engineering curriculum which helps our students to become Global Engineers.
- **Strong Industry Collaborations.** Chitkara University has very strong industry collaborations with global industry leaders. These companies such as ARM, Cadence, Wipro, Infosys, Oracle, Microsoft, SAP and Dassault Systemes provide a platform for our budding Engineers to experience the latest technologies hand-on.
- **Campus recruitment by the best in the Industry.** We are the preferred university for fresher intake for many leading blue chip companies around the country including Microsoft, Google, Amazon and Google.

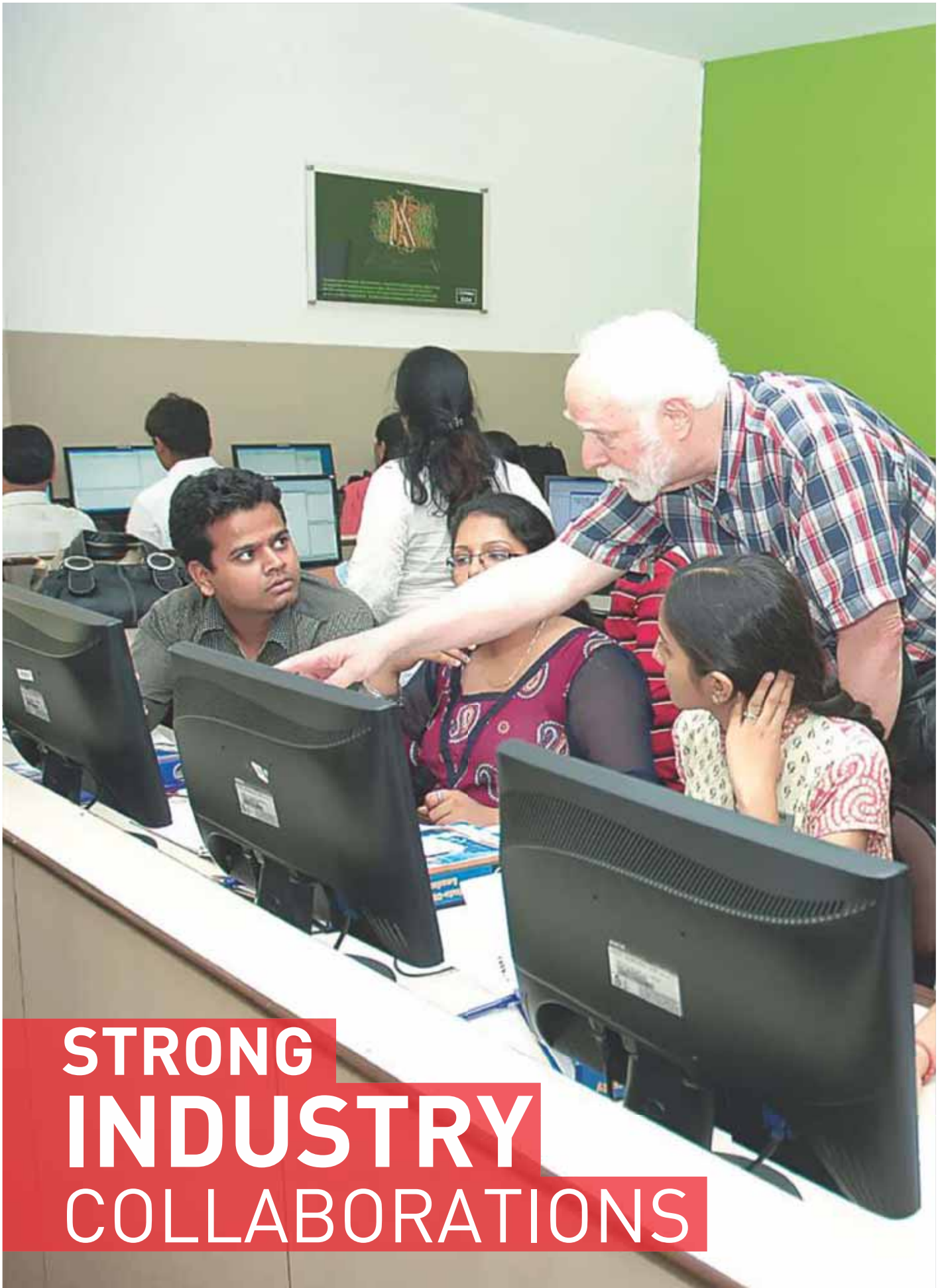


# Engineer Your Dreams



We encourage our students to enter competitions to enhance their learning experience. You will have opportunities to gain recognition of your skills and add to your resume while you are studying.





**STRONG  
INDUSTRY  
COLLABORATIONS**



**nVIDIA**  
NVIDIA CUDA PARALLEL COMPUTING  
LABORATORY



Google™



TEXAS  
INSTRUMENTS

Microsoft



ARM™

ca  
technologies

NXP

cādence™

ERICSSON ≡

CISCO SYSTEMS  
NETWORKING  
ACADEMY

Infosys®

ORACLE®

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# PROACTIVE ACADEMIA-INDUSTRY INTERFACE

**Chitkara Engineering 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”.**

For our Engineering programs, we realize that our technical graduates are the foundation of the new knowledge based Indian economy. We also know that an active industry-academic interface is required to achieve the goal of producing “industry ready” students who are well rounded and quick learners. For this purpose, linkages have been established with industry partners such as CISCO, CA, Dassault Systems, National Instruments and Cadence Design Systems to develop and deploy industry-relevant curricula on various technologies.

Marquee companies such as nVidia, ARM, cadence, nxP semi conductors and Texas Instruments have recently supported us in terms of supplying state of the art latest equipments for best hands-on training for our students.

- Chitkara University is privileged to be part of the SAP University Alliance.
- The Google Student Ambassador Program is an opportunity for students to act as liaison between Google and the University.
- Microsoft Innovation Centre at Chitkara University provides incubation and expert hands-on support on Microsoft technology innovation, research, and software solutions.
- nVIDIA which is one of the leading companies in the parallel computing space has granted the status of “CUDA teaching Centre” to Chitkara University.
- 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.
- 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 & National Instruments to develop and deploy industry-relevant curricula on various technologies for our Engineering curriculum.



## Certificate of Accreditation

### Wipro Technologies

*is proud to honor and accredit*

**Chitkara University, Chandigarh**

*as a*

**TRUSTED ACADEMIC PARTNER**

*By virtue of having met the qualifying standards of excellence in*

*Wipro's Institutional Accreditation Framework and providing*

*talent of the highest caliber*



  
Girish S Paranjpe  
Joint CEO  
Wipro Technologies

  
Suresh Vaswani  
Joint CEO  
Wipro Technologies

  
Pradeep Bahirwani  
Vice President  
Talent Acquisition

Wipro Technologies has been hiring Engineering graduates from Chitkara Institute of Engineering and Technology for the last three years. Looking at the academic standards and performance of our alumni, Wipro Technologies has conferred "The Trusted Academic Partner" status to Chitkara University. Our Engineering curriculum now boasts of Wipro's Talent++ series which consists of bouquet of student engagement initiatives exclusively designed for Chitkara University students.



Integrated Circuit (IC) design is a crucial Engineering field, where one has to learn the nitty-gritty involved in designing chips for complex applications. Cadence has its largest market share in design of state of the art EDA tools. Chip design in India has also moved into the big league with multinationals, design services companies, product companies and start-ups in the country growing by the day. Chitkara University has invested in procuring the necessary industry standard tools which enables innovators to design a full-fledged integrated circuit chip right from inception of an idea to layout to customize for the full scale design. Many microelectronic circuits design courses have been embedded into the course curriculum for Electronics and Communication Engineering students.

ARM is the world's leading semiconductor intellectual property (IP) supplier. The technology designed by ARM is at the heart of many of the digital electronic products sold. ARM Technologies has taken an initiative in establishing a Microcontroller laboratory by donating state of the art mbed kits. This enables students to explore their potential and use the latest technologies to build the applications, which can compete with the best in the world.



NXP semiconductors lab has been established by a 4 billion dollar Multi National company with its presence in 25 different countries of the world. NXP Semiconductors provides High Performance Mixed Signal and Standard Product solutions that leverage its leading RF, Analog, Power Management, Interface, Security and Digital Processing expertise. As a part of this laboratory, Chitkara University has been granted state of the art software as well as hardware for realizing various electronic circuit design applications.

ORACLE®

Oracle Workforce Development Program (WDP) is one of the most popular database management education programs in the world and we have integrated important elements of WDP in some of our programs.



Mr. Ratan Tata interacting with Chitkara students at Auto Expo where our students got the opportunity to display their design concepts for the next generation automobiles.

Cisco Networking Academy program is an e-learning program that delivers Web-based educational content, online testing, student performance tracking, instructor training and support, as well as hands-on labs. The Networking Academy program combines lectures and online learning with hands-on laboratory exercises in which students apply what they learn in class while working on actual networks. Chitkara University seeks to play a major role to provide individuals the knowledge, and teach problem-solving abilities and critical thinking skills they need to pursue a career in ICT industry in the 21st century workplace. Cisco programs prepare students for industry-recognized certification exams such as the Cisco Certified Network Associate (CCNA), Cisco Certified Network Professional (CCNP), and NetPlus+.







Infosys Campus Connect is an industry-academia partnership initiative taken by Infosys to assist the budding engineers improve their employability skills and make them industry ready. Chitkara has partnered with Infosys for this program to increase competitiveness and to enhance the pool of highly capable talent for growth requirements in IT space.

The courseware comprises of the IP and experience of

Infosys in training thousands of entry-level engineers from diverse backgrounds and disciplines so that they perform their best in delivering world-class projects to global customers.

Chitkara University has integrated the foundation program in the curriculum for all engineering programs which covers essential generic topics like -

- Computer hardware and system software concepts
- Programming fundamentals
- RDBMS
- System development methodology
- Analysis of algorithms
- Object oriented concepts
- User interface design
- Web technologies Client/server concepts



Texas Instruments is the company of the world, which boasts of the design of first Integrated Circuit sometime in late 60s. For more than 80 years, Texas Instruments has used increasingly complex signal-processing technology—with advances ranging from the incremental to the revolutionary—to literally and repeatedly change the world. TI has sponsored a full fledged laboratory with grant of beageboard kits, which enables students to fly their imagination and create their own electronics applications.

nVIDIA is a giant company in the design of world class Computers Graphics cards. Founded in 1993, nVidia has continuously reinvented itself to delight users and shape the industry. Of late, they have harnessed the parallel computing capabilities of the GPU to advance high-performance computing and this move from nVidia into mobile domain has put them at the center of one of the industry's fastest-growing segments. Chitkara University has been granted the status of CUDA Teaching Center (CTC) owing to a consistent performance in terms of organisation of large number of workshops on Parallel Programming and also offering courses on most advanced graphics supporting language CUDA.



**aaautosync**

**AUTOMOTIVE**  
centre of excellence



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# AAUTOSYNC

## Automotive Centre of Excellence

Autosync is an innovation research centre incepted at Chitkara University, formulated to provide automobile intellect with a blend of practical training and theoretical demonstrations and aims to feed the automotive sphere to fulfil their research targets every year. Autosync has excellent resources in terms of Research and Validation laboratories and expert Industry faculty promoting academic excellence. We have very strong Industry collaboration with world leaders in automotive technologies.



Tata Technologies and Dassault Systemes lend their technical plus software knowhow to set up a brilliant lab for design, manufacturing and documentation to cater to the rising demands of designers, analysts in the Automotive industry.



Autosync has collaborated with Steinbeis Centre for Technology Transfer India, which aims to bridge the world of science, academia, and business articulately.



Mahindra Rise Igniters have collaborated with the centre forming "Igniters Innovation Lab".



BOSCH Aftermarket - Automotive Testing equipment's and theories which the students shall undergo to form a more coherent linkage with what they have taught.



RASCO Auto and LMI Technologies, U.S.A. associated with the centre to initiate a state of art Laboratory for "Reverse Engineering and 3D Scanning" Technology development. utosync stands synonymous to Innovation, Technology Transfer, Live Project management.



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## Student Chapters On Campus

### Institute of Electrical Electronics Engineers



IEEE is the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity. Through its worldwide network of geographical units, publications, web services, and conferences, it remains the world's largest technical professional association. Chitkara University has a very strong IEEE chapter since 2009 and has completed initiatives such as Ethical Hacking Competition (participation of more than 60 teams), Youth Parliament and numerous Technical Symposiums.

### Association for Computer Machinery



ACM is widely recognized as the premier membership organisation for computing professionals, delivering resources that advance computing as a science and a profession; enable professional development; and promote policies and research that benefit society. ACM students' Chapter has been active on our campus since 2010 and is serving as a gateway to forums, panel discussions and symposia that further enhances student's professional development.

### Institute of Electronics and Telecommunication Engineers



IETE is a leading professional society devoted to the advancement of science and technology related to "Electronics, Telecommunications and IT". IETE has a strong campus presence since 2009 and initiating various events which is updating students with latest technological advancements.



### The Indian Society for Technical Education



The major objective of ISTE is to assist and contribute in the production and development of top quality professional engineers and technicians needed by the industries and organizations. We became an Institutional member in 2005 and since then over 55 Chitkara faculty have become life members of ISTE.

### The Institution of Engineers



The mandate of IE is to “to promote and advance the science, practice and business of engineering in all its branches in India” and has been active on our campus since the year 2009. Students from all branches of Engineering are active members of the Chitkara chapter.

### Society of Automotive Engineers



The SAE Collegiate Club, Northern India Section at Chitkara campus was inaugurated in the year 2006 and the Department of Mechanical Engineering is immensely benefited by bringing its student members and faculty on the network of the latest advancements in technology in the field of automobiles.

### American Society of Mechanical Engineers



ASME serves its technical community through high-quality programs in continuing education, the development and maintenance of codes and standards, research, conferences and publications, government relations, and various forms of outreach. ASME-Chitkara Students Section is the only one in Northern INDIA. After its beginning in January 2010, the students section has organized three events at National Level.

### Computer Society of India



Formed in 1965, the CSI has been instrumental in guiding the Indian IT industry down the right path since its formative years. The mission of the CSI is to facilitate research, knowledge sharing, learning and career enhancement for all categories of IT professionals, while simultaneously inspiring and nurturing new entrants into the industry and helping them to integrate into the IT community. CSI established its chapter at Chitkara University in 2013.

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# COMPUTER SCIENCE & ENGINEERING

## 4-Year Bachelor of Engineering (CSE)

**The 4-year B. E. Computer Science & Engineering program is offered at Chitkara Institute of Engineering & Technology, Punjab.**

### **Program Objectives**

The fundamental objective of our Computer Science program is to provide the opportunity for our students to develop a firm foundation in Mathematics, Science, and design methodology of computing systems. Our course covers all fundamentals, working and expert subjects that provide a holistic learning environment where students understand and are able to apply the most contemporary and essential tools needed in the breadth and depth of Computer Science & Engineering.

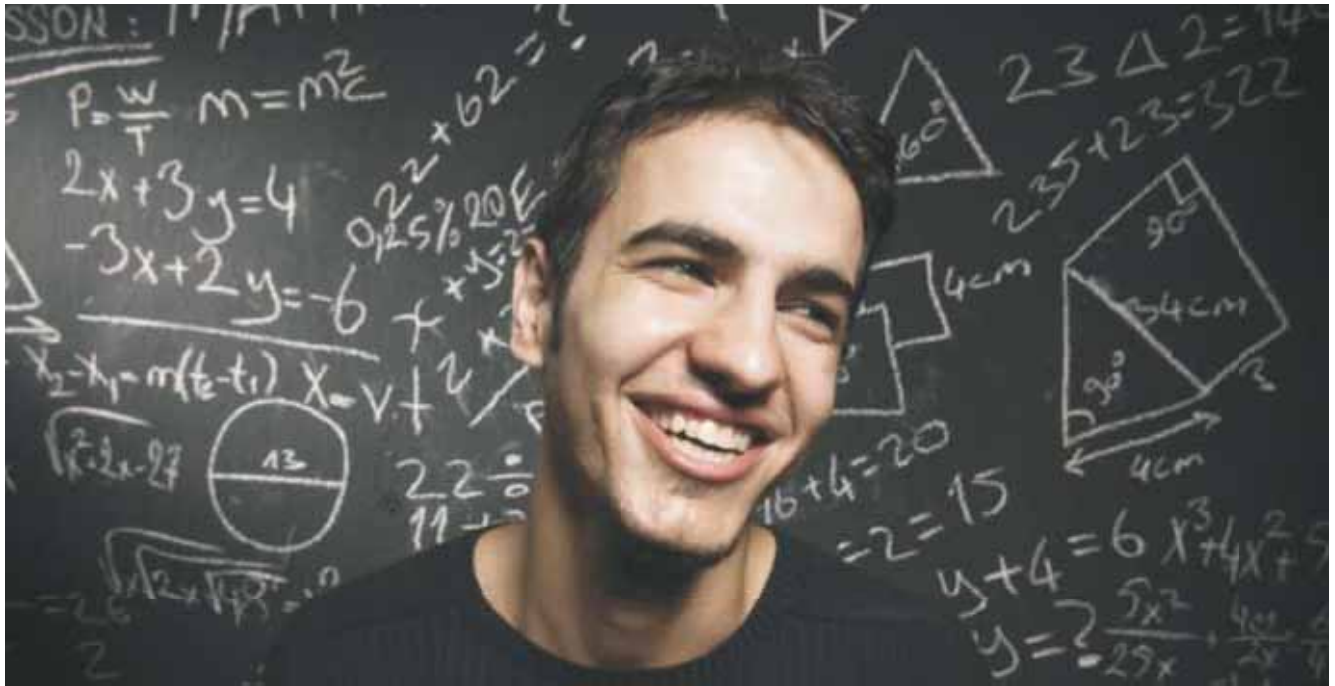
### **Student Outcomes for our Computer Science Programs**

- An ability to design a software or digital hardware system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- Knowledge of probability and statistics, including applications to Computer Science and Engineering.
- Knowledge of Mathematics through differential and integral calculus, basic science, Computer Science, and engineering sciences, necessary to analyze and design complex systems containing hardware and software components, as appropriate to Computer Engineering.
- Knowledge of advanced Mathematics, including linear algebra, numerical computing methods for Engineering, and discrete Mathematics.
- Knowledge of algorithms and data structures
- An ability to apply design and development principles in the construction of software systems of varying complexity.
- Knowledge of concepts of programming languages.
- Knowledge of computer organisation and architecture.
- Knowledge of theoretical foundations.
- Knowledge of problem analysis and solution design.
- An ability to apply Mathematical foundations, algorithmic principles, and Computer Science theory in modeling and design of Computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.

### **Program Contents and Academic Framework**

Our curriculum lays intensive focus on:

Computer Programming And Problem Solving/ Object Oriented Paradigm & Programming/ Digital Logic/ Data Structures & Algorithms/ Computer Architecture & Organisation/ Algorithm Design & Analysis/ Microprocessor & Interfacing/ Operating Systems/ Computer Networks/ Programming Language Translators/ Graphics And Multimedia/ Database Systems/ Software Engineering/ Internet & Web



Programming/ Image & Vision Computing/ Software Project Management/ Mobile Computing/ Operations Research/ Information Security/ Cloud Computing/ Wireless Networks/ Concurrent & Distributed Systems/ Data Warehousing & Data Mining

### Cutting Edge Labs

Chitkara University has excellent infrastructure, including domain specific laboratories associated with the technical divisions. Industry leaders like IBM, Cisco, Google, Microsoft & nVidia have established their laboratories in collaboration with the School.

Major Laboratories include: Theoretical Computer Science and Language Processing/ Open Source technologies/ Data technology/ Grid-Cloud Computing/ Software Systems/ Computational Intelligence, High Performance Computing/ Mobile Computing and Intel Multi-core laboratories and Image Processing. All labs are equipped with the latest Hardware & Software for the upgradation of education and upliftment of research for students to meet the challenging needs of the IT sector.

### Scope of Employment

- As Developers and Specialists in high-end services and IT-product companies
- As Development Engineers, Technical Leaders and Managers.
- As Consultants, Solution Developers and Entrepreneurs.
- As Computing Specialists in Research Labs and Technology Providers
- As System/ Network Performance Analysts and Simulation / Evaluation Specials in IT companies.

### Careers

We have leading blue chip companies such as; Google, Microsoft, Amazon, Infosys, Wipro & HCL Technologies coming to campus year after year for recruitment events.

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# ELECTRONICS & COMMUNICATION ENGINEERING

## 4-Year Bachelor of Engineering (ECE)

**The 4-year B. E. Electronics & Communication Engineering program is offered at Chitkara Institute of Engineering & Technology, Punjab.**

### Program Objectives

Electronic Engineering drives our world of new technologies. Devices designed by Electronic Engineers feature in all aspects of modern life, including computers, mobile phones, robotics, the internet, digital television, satellites, aerospace, medical scanners, security systems and sustainable energy. Engineering degrees are a fascinating and challenging choice, with well-qualified graduates being in high demand in global industries.

All courses begin by providing students with an understanding of the basic principles of electronic engineering, whilst developing their skills in maths and computing. Modules then combine these fundamental elements into systems that meet the needs of particular applications.

Running through all courses is a significant portion of project work. In early years, group design/project work is incorporated into many of the modules. In later years, a team software engineering project enables students to simulate operating as a commercial business. Final year students have substantial individual projects, sometimes out in industry. The Department fully recognises the vital nature of this kind of supervised study to prepare students for the world of work. In turn, we have a widely recognised reputation for producing high quality graduates with skills relevant to a range of career paths.

### Program Contents and Academic Framework

YEAR - 1 & 2	YEAR - 3	YEAR - 4
Provides students with a thorough introduction to Electronics, covering the key areas of circuits and operational amplifiers. Covers basic circuit analysis skills, operational amplifiers from a theoretical and practical basis, and the associated mathematical concepts and tools.	Introduces students to the propagation of high-speed signals around circuits and systems and the principles of noise within them. Considers the concepts of Signal Integrity and Electromagnetic Compatibility, the effects of not achieving EMC on system operation and some of the fundamental concepts that lead to these problems and their mitigation.	Engineers are often involved in the entire life cycle of a product, from concept through design and computer modelling, to a hardware device. Students experience many of these real-world practices by working in teams – taking a technical problem, capturing the requirements, creating a specification for a solution, simulating it using industry-standard software tools, before final implementation in hardware.





### **Cutting Edge Labs**

The department is well established with state of art technology to impart knowledge for future industrial and educational needs. It is furnished with DSP, microprocessor, ,communication, optical, VLSI and embedded systems. The labs offer students to work on a wide range of advanced software packages.

We boast of fully equipped laboratories with modern equipment supported by special purpose software packages like ETAP, MATLAB, CAPSA, LABVIEW, ORCAD, MULTISIM, KEIL, PSIM and MAGNET.

### **Industrial Connections**

Marquee companies such as nVidia, ARM, cadence, NXP semiconductors and Texas Instruments have recently supported us in terms of supplying state of the art equipments for best hands-on training for our students.

### **Careers**

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



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# MECHANICAL ENGINEERING

## 4-Year Bachelor of Engineering (ME)

**The 4-year B. E. Mechanical Engineering program is offered at Chitkara Institute of Engineering & Technology, Punjab.**

### **Program Objectives**

Mechanical Engineering includes the science and art of formulation, design, development and control of systems and components involving thermodynamics, mechanics, fluid mechanics, mechanisms and the conversion of energy into useful work. The undergraduate program of study in Mechanical Engineering at Chitkara University, addresses both the quest to understand how things work and the desire to put this understanding to practical use. The student body is guided by faculty who merit national and international recognition, who are members of prestigious engineering societies and counted among the outstanding scholars in their profession. The faculty is committed to the advancement of the fundamental Engineering sciences encountered by Undergraduates in a curriculum that is heavy in "basics." This is balanced by their demonstrated interest and active participation in practical developments as well. Thus, our graduates can function at the leading edge of engineering practice, tackling jobs that are far from dull or routine.

### **Program Contents and Academic Framework**

The Undergraduate program provides a broad scientific and technical background in Mechanical engineering. Undergraduate specialisation is provided in the choice of technical electives from the subject areas of applied mechanics, automatic controls, electro-mechanical systems, energy conversion, fluid mechanics, heat and mass transfer, manufacturing systems and materials processing, mechanical design, cryogenics, thermodynamics, robotics and automation. During the first two years, coursework emphasizes Mathematics, physics, chemistry, computing, materials, statics and graphics: much of this in common with



the other engineering curricula. In the last two years, the emphasis is on mechanics of solids and fluids, thermodynamics, heat transfer manufacturing, design and controls; instrumentation, experimentation and system synthesis.

### **Cutting Edge Laboratories & Facilities**

At Chitkara University we have state of the art laboratories including thermal engineering, heat-transfer, dynamics, metallurgy, metrology and fuels. Modern computing facilities are available for students at the CAD & Computer Integrated Manufacturing Laboratories.

### **Scope of Employment**

- In a wide range of exciting industries including Aerospace, Automotive, Bio-medical, Chemical, Computers, Electronics, Fossil and Nuclear Power, Manufacturing, Pharmaceutical, Robotics and Textiles.
- In areas of research & development, design, testing and evaluation, manufacturing, operations and maintenance, marketing, sales and administration.
- In public sector units like Railways, ONGC, Indian Oil, ISRO, SAIL, NTPC, DDRO and IAF.

### **Careers**

We have leading mechanical and automotive companies visiting our campus regularly for placement activities. Our students have also obtained placements at leading companies such as Infosys, Godrej, Escort, L&T, Wipro, ISMT, Mahindra & Mahindra, JCB, Eicher and many more.

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# MECHANICAL ENGINEERING

## – with Specialisation in Automobiles

### 4-Year Bachelor of Engineering (ME) with Specialisation in Automobiles

#### Program Objectives

Automotive Engineering is concerned with the life-cycle support (including design, manufacture, performance and durability testing) of vehicles; from road and off-road vehicles to race cars, vans and trucks. A key challenge for Automotive Engineers today is to design sustainable vehicles that meet ever-increasing safety and performance standards in a cost-effective way. In order to do this, you need to be able to embrace a wide range of fundamental and more specialist engineering skills, as well as being aware of the commercial implications that impinge on the design and production processes.

There is also the opportunity to go for Industry trained courses, or work on the Formula student race car, Supermileage Vehicle, Baja Vehicle and which are a big attraction for this course as well as providing you with an excellent chance to put theory into practice.

Our Industry connections help you to integrate the knowledge with the relevant automobile OEM's, IT and Design, or component manufacturing companies like Tata Motors, Maruti, Escorts, Tata Technologies, Mahindra & Mahindra, Infosys, Wipro, Dassault Systemes and many more.

#### Program Contents and Academic Framework

Our B.E. (Automotive) Engineering students complete the first two years of B.E. Mechanical Engineering and then focus exclusively on automotive engineering. The program lays special emphasis on:

Basics of Automotives / Automotive Material and Component Testing / Automotive Chassis Engineering / Automotive Driveline / Vehicle Dynamics and Analysis / Automotive Electronics / Fuels and Combustion / Emissions and Safety Standards

#### Cutting Edge Laboratories & Facilities

##### We have world class labs including:

- Vehicle Testing Lab
- Fuel Testing Lab
- LADDER: Design & Manufacturing Lab
- Automotive Chasis & Components Lab
- Automotive Electronics Lab
- 3D Scanning and Reverse Engineering Lab

#### Careers

We have leading mechanical and automotive companies visiting our campus regularly for placement activities. Our students have also obtained placements at leading companies such as Tata Motors, Maruti, Mahindra & Mahindra and many more.



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# BACHELOR OF COMPUTER APPLICATIONS

## 3-Year BCA

### Program Objectives

The primary objective of this program is to provide a foundation of computing principles and business practices for effectively using/managing information systems and enterprise software. It helps students analyse the requirements for system development and exposes students to business software and information systems. This course provides students with options to specialize in legacy application software, system software or mobile applications.

### Program Contents and Academic Framework

Programming in C / Visual Programming with VB / Introduction to Information Technology / Computational Methods / Digital Computer Fundamentals / Object Oriented Programming with C++ / Data Structures / Software Engineering / Principles of Accounting / Software Testing / System Analysis & Design / E-Commerce / Design & Analysis of Algorithms / Database Management Systems / Computer Architecture / Operating Systems / Data Communications and Networking / Programming in Java / Multimedia Systems / Microprocessor & Assembly Language Programming / Computer Graphics

### Scope for Employment

- A plethora of opportunities in application development, software testing and maintenance.
- Options to pursue MCA/ M.Sc.-CS/IT/ MBA/ MS(IT).
- As system analysts and database administrators in IT enabled service sector.

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## 5-Year Integrated BCA-MCA

### Program Objectives

Students enrolling in this program can pursue Bachelor's as well as Master of Computer Application without taking a break. Through this program students not only get a world class, "industry-ready" curriculum but also end up saving a year. After the completion of 3 year BCA coupled with intensive classes in the summer term, students get to spend the last 2 years as an internship in IT companies.



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# MASTER OF COMPUTER APPLICATIONS

## 2-Year MCA (Lateral)

### Program Objectives

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

### Program Contents and Academic Framework

Introduction to Computer Organisation / Programming in C & Algorithm Design / Data Structures / Object Oriented Programming in C++ / Programming in Java / Microprocessors / Computer Architecture / Database Management Systems / Software Engineering / Computer Networks / Operating Systems / Computer Graphics / Principles of Programming Languages / Theory of Computation / Digital Image Processing / Compiler Design / Embedded Systems / Open Source Programming / Mainframe Computing

### Scope for Employment

- As programmers and software consultants.
- Positions in application software development, testing and maintenance.
- As system analysts and database administrators.
- As independent software developers and entrepreneurs





















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## CAMPUS RECRUITMENT

Our Engineering programs have always enjoyed special preference of public as well as corporate recruiters on account of the excellent work place performance of our graduates through the years. Blue Chip companies across various Engineering sectors have been the leading campus recruiters for our Engineering graduates since inception. Even during tough economic conditions in the last couple of years, we have been shortlisted by major campus recruiters which speaks volumes about our academic prowess. We are proud of the fact that our Engineering programs have been ranked in top 50 of the country in the "Engineering Schools Rankings" by 'Dataquest' magazine. The major criteria for this ranking is based on the observations put forward by major campus recruiters and is a very strong indicator of our proactive industry partnerships.

For the Engineering batch graduating in 2014, top companies such as Google, Microsoft, Amazon, Infosys, Wipro, L&T, Virtusa and Oracle have already visited the campus and picked up the best Engineering minds.

### Some of our Major Campus Recruiters for Engineering Programs

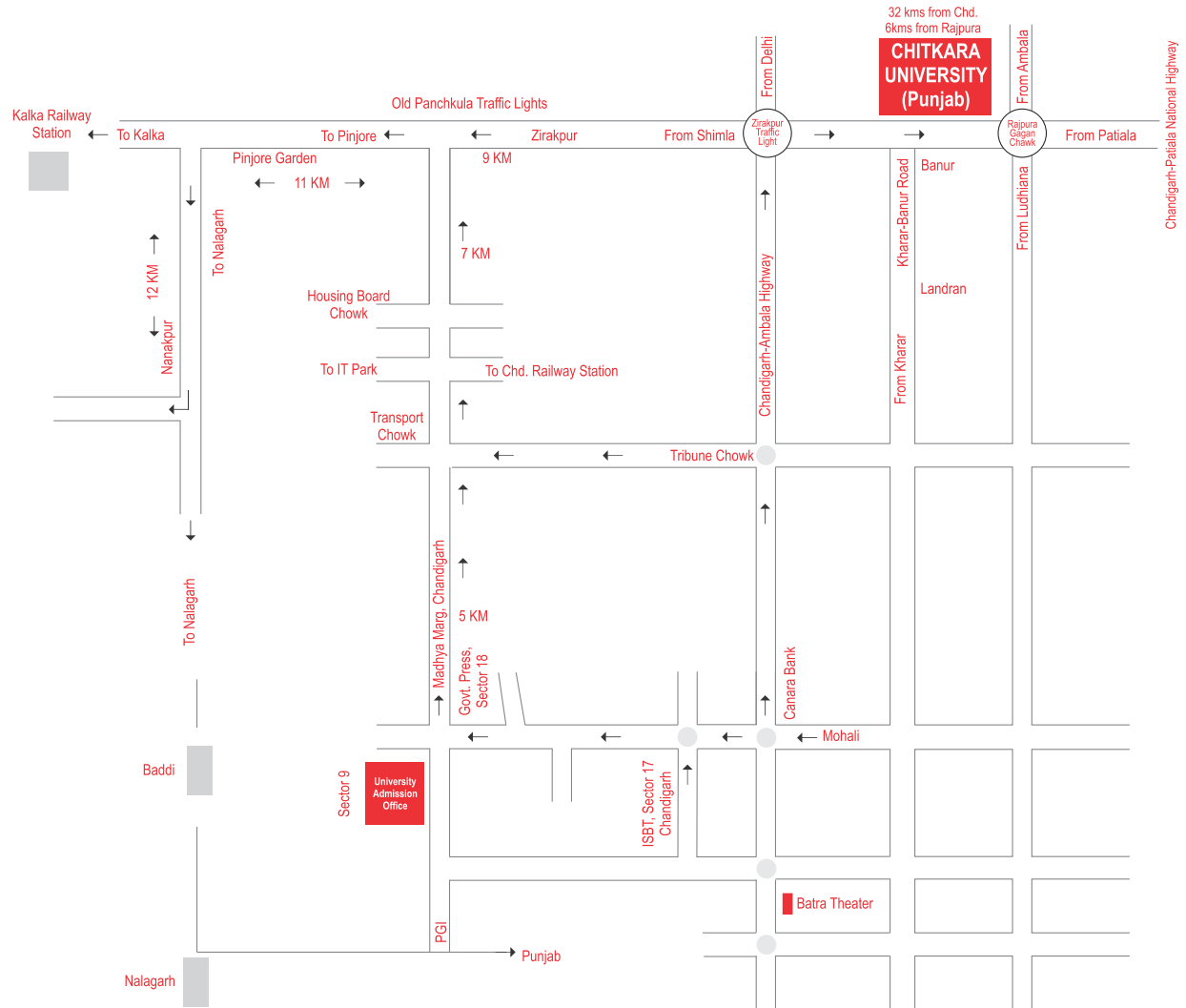


 Consider IT Done®			<b>Bank of America</b> 
 ISO 9001:2008 COMPANY			
 SWARAJ ENTERPRISE			<b>NIIT</b>
			<b>Hewitt</b>
			<b>WNS</b> <i>Enabling Your Enterprise</i>
<b>headstrong</b>	 <i>One world. One workplace.</i>		
<b>DENSO</b>			
			
			



India's Largest Automotive Quiz being conducted annually at Chitkara University by Mahindra Auto Quotient





**Chandigarh is conveniently linked to the rest of the country by air, road and rail network.**

### How to Reach Chandigarh by Air

Chandigarh has an airport just 11kms away from the City Centre. Major airlines connect the city with other major cities like Mumbai & Delhi.

### How to Reach Chandigarh by Road

The city boasts of an excellent road-network. It is also conveniently located within motor-able distance from a number of major cities of North India. National Highways 21 and 22 run through the city. Near perfect road condition and breathtaking view on either side offer a pleasant drive. It is approx. 250 kms North of Delhi & it takes almost 5 hrs to cover the journey.

### How to Reach Chandigarh by Rail

The rail network serves the city conveniently. Chandigarh Railway Station is about 8kms from the City Centre in Sector 17. Important trains like the Shatabdi Express and the Himalayan Queen provide two train connections every day between Chandigarh and Delhi.

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For more information about the University  
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Admissions Helpline:  
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