Academic Year 2016

ENGINEER YOUR FUTURE...

4 Year BE in Computer Science | Electronics & Communication
Electronics & Computer Science | Mechanical | Electrical | Civil
BCA | MCA

CHITKARA
UNIVERSITY

GREAT TO CHITKARA

1

15:1 STUDENT TO FACULTY RATIO

2

EMBARK ON RESEARCH FROM DAY ONE

7

INTENSIVE FOCUS ON BUILDING STRONG COMMUNICATION SKILLS

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GREAT PLACEMENTS GIVE YOUR FUTURE A BOOST

6 REASONS JOIN UNIVERSITY

3

BRING OUT THE CREATOR AND STRATEGIST IN YOU

4

EMPOWER YOU TO BUILD A BETTER WORLD WITH AN INDUSTRY BASED EDUCATION

5

VIBRANT STUDENT LIFE

- DEDICATED TIME TO PURSUE YOUR INTERESTS
- START SOMETHING YOU ARE PASSIONATE ABOUT

6

COLLABORATION WITH GLOBAL UNIVERSITIES TO BRING YOU A WORLD-CLASS EDUCATION

Hello future.

SMALLER CLASSES FOR BETTER LEARNING

OUR WAY OF LEARNING IS

HANDS-ON
COLLABORATIVE
INTERACTIVE

THEORIES ARE BROUGHT

TO LIFE

AND YOU LEARN BY EXPERIENCING THEM.

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.

Chitkara 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

Chitkara Institute of Engineering & Technology

Chitkara University (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-2016, we are offering the following programs:

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

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

2-Year Master of Computer Applications (MCA) Lateral
5-Year Integrated BCA-MCA
3-Year Bachelor of Computer Applications(BCA)
Master of Engineering (M.E.) Fellowship Programs in CSE | ECE

Chitkara School of Engineering & Technology

Chitkara University (Himachal Pradesh)

Chitkara School of Engineering & Technology (CSET) was established in the year 2008 at Chitkara University (Himachal) and is well on its path to become one of the leading Engineering schools of the country. Since inception, CSET has been at the forefront of forging strong collaborations with companies like ARM, Cadence, Microsoft, etc. In a short time it has become one of the premier Engineering institutes of North India.

For the academic year-2016, we are offering the following programs:

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

- Computer Science & Engineering
- Electronics & Computer Science Engineering
- Civil Engineering

Master of Engineering (M.E.) Fellowship Program in Civil Engineering

THE MATCH BETWEEN YOU AND CHITKARA UNIVERSITY

AS A TOP-50 ENGINEERING SCHOOL OF THE COUNTRY, IT'S A GIVEN THAT YOU WILL BE CHALLENGED TECHNICALLY.

EXPLORATION AND INNOVATION

Our students must have the ability to think for themselves. Chitkara students are passionate and focused. All Our students have that driveóthe 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 and to manage the process, to take ideas to the highest possible level.

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. 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.

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.

HANDS-ON CREATIVITY

Chitkara University is an active, hands-on place. Getting your hands dirty and trying something new is often the best way to achieve success and to make learning come to life. At Chitkara University, through the art and design, we apply theoretical knowledge to real-world problems. In other words, you should enjoy both thinking and doing.

AN EDUCATION AHEAD OF ITS TIME

At Chitkara University, our Engineering students receive a quality education that prepares them to advance the frontiers of technology. Through our ìHands-onî 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 donít just learn theory ñ they expand upon it and apply it.

ENGAGING STUDENT CENTRIC EDUCATION

Dedicated laboratories allow students to combine their practical and theoretical studies right from the first year and continuing throughout their four year program.

Compulsory projects are a part of the course curriculum. Students are engaged in Engineering design right from the first year.

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.

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.

We are the preferred University for fresher intake for many leading blue chip companies around the country including Microsoft, Google, Amazon and Google.

Our Engineering facilities include a number of instructional and research laboratories including the Microsoft Innovation Centre, nVidia CUDA Teaching Centre, NXP Semiconductors Signal Lab and Dassault Design Centre.

A UNIQUE, HANDS-ON LEARNING EXPERIENCE

Hands-on and interactive learning means classes are never dull. Theories are brought to life, and you learn by experiencing them.

Classes incorporate activities, such as simulations and problem sets conducted in the format of mini lectures, video lecturettes, small group recitations, hands-on demos, designettes and concept quizzes to cement the understanding of different concepts in a subject. The interactive sessions foster collaborative learning and you will enjoy and better understand concepts that are traditionally viewed as difficult. Real-life examples are demonstrated regularly.

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.

Google

SAP

Texas Instruments

Microsoft

NVIDIA

ARM

ca technologies

NXP

cadence

ERICSSON

STRONG INDUSTRY COLLABORATIONS

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 ìIndustry Readyî.

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 ìindustry readyî 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.
- We have dedicated Apple funded labs for making our students proficient in IOS mobile applications.
- 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.

WIPRO
Applying Thought

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

ACADEMIC ACCREDITED WIPRO

Girish S Paranjpe	Suresh Vaswani	Pradeep Bahirwani
Joint CEO	Joint CEO	Vice President
Wipro Technologies	Wipro Technologies	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 ìThe Trusted Academic Partnerî 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+.

CISCO™
Networking Academy

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 progam 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 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 technologyñwith advances ranging from the incremental to the revolutionaryñto 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.


aautosync
AUTOMOTIVE
centre of excellence
CHITKARA
UNIVERSITY

AAUTOSYNC

Automotive Centre of Excellence

Aautosync 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. Aautosync 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.

Aautosync 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 ìIgniters Innovation Labî.

BOSCH Aftermarket - Automotive Testing equipmentís 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 ìReverse Engineering and 3D Scanningî Technology development. Aautosync stands synonymous to Innovation, Technology Transfer, Live Project management.

STUDENT LIFE WITH A UNIVERSAL APPEAL

With student clubs, research projects, design competitions and more, you will have no trouble finding a stage to pursue your passions.

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.

We complement the academic programs by providing a variety of activities, educational opportunities, programs, facilities, and services that enhance student development and enrich the quality of campus life at Chitkara University.

With more than 20 active clubs and leadership positions in various student events, there are many other ways to refine your leadership and organisational management experience, explore interests, and make friendships that will last a lifetime.

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 ìto promote and advance the science, practice and business of engineering in all its branches in Indiaî 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.

WE LET YOU EMBARK ON RESEARCH FROM DAY ONE.

RESEARCH OPPORTUNITIES ARE OPEN TO 100% OF CHITKARA ENGINEERING STUDENTS.

We believe every student benefits from being taught by experts active in research and practice. You will discuss the very latest ideas, research discoveries and new technologies in seminars and in the field and you will become actively involved in a research project yourself. All our academic staff are active in internationally-recognised scientific research across a wide range of topics. You will also be taught by leading industry practitioners.

There are always numerous engineering research projects in progress, funded by industry, charities, government departments and research councils. Our undergraduate students benefit through access to up-to-date equipment, industrially linked projects and staff expertise.

CHITKARA UNIVERSITY RESEARCH & INNOVATION NETWORK (CURIN)

Through **Chitkara University Research and Innovation Network (CURIN)**, our researchers, staff and students work across disciplines to extend the boundaries of knowledge. 11 Centres of advanced research under CURIN build and sustain Chitkara Universityís competitive advantage through leadership. These centers and institutes are the locus of research for collaborative groups of investigators pushing the frontiers of knowledge forward. They are involved in cutting edge research, exploring new technologies to improve the countryís infrastructure and safety ó and contributing to society through many other discoveries and innovations.

MULTI PURPOSE DUAL OPERATED RICKSHAW/PEDICAB

Shivam Sahni, first year student filed a patent on e-pedicab. e-pedicab is a multipurpose dual operated rickshaw which is a simple, cost effective, innovative substitute for three wheel manually operated rickshaw. It is a solution for the rickshaw pullers who carry heavy loads for livelihood. The wheels are arranged in a diamond pattern. Instead of two wheels in front and two in back, this new design features an additional wheel at the rear t increase robustness and easy maneuverability. The diamond shaped geometry, allows the chassis to form a planar, simple and stable structure. The rickshaw can be operated by dual mechanism, either by motor or by manual paddling. This technology has been showcased and has won laurels in some of the biggest techfests organized in India.

Live Braille

In 2014, our Engineering student Abhinav and his team developed Live Braille which is a breakthrough Innovation for Visually Impaired. It is a hand wearable glove that aids the blind to manouevre themselves and become self-reliant in terms of mobility.

- **Recommended by NASA**
- **Winner of TiEGER award by TiE**
- **Awarded by IMechE UK**
- **Honored by Illinois State University**
- **Appreciated by various IITs**

A RESEARCH & PRACTICE LED CULTURE

SOLAR LOUNGE

Shrey Dhiman student of final year Electrical Engineering won bronze medal for project ëSolar Loungeí in All India Design Competition for Engineering Students-2014 (EE) conducted by National Design and Research Forum, The Institution of Engineers (India).

MICRO ELECTROMECHANICAL SENSORS (MEMS) BASED AUTOMATIC WINDSCREEN WIPER

Hemant Bansal student of Masters Program filed a patent on Micro Electromechanical Sensors(MEMS) Based Automatic Windscreen Wiper under the guidance of Dr. Nitin Saluja and Mr. Vishal Mehta. The design relates to the field of automobile and particularly to the windscreen wiping mechanism. It uses Micro Electromechanical Sensors (MEMS) based automatic windscreen wiper claiming 100% cleaning of windscreen in comparison to 83% cleaning (The best in automobile segment). It is capable of automatically detecting dust and rain and cleans 100% area of the wind screen.

RFID BASED INTEGRATED PERSONAL IDENTIFICATION SYSTEM WITH SMART CARD

This system provides integration of various identification cards ñ driving license, PAN card, Debit and Credit cards into one card, based on integration of RFID tags. Thus, an individual is saved from the hassle of carrying multiple cards.

REMOTE CONTROLLED SOLAR CAR WITHOUT STEERING WHEEL

Rishabh Ahuja and Parmeet Kaur student of second year electronics branch filed a patent on remote controlled solar car without steering wheel under the guidance of Dr. Sachin Ahuja by using assistive technologies, a low cost solar car is designed, which makes use of the DPDT switches to steer the vehicle in place of steering wheel. The mechanism boasts of cost effectiveness and is usable by specially-abled persons.

FOLDING BICYCLE

Lavan Jain, Divyanshu Sood and Akashdeep Singh Chahal students of B.E. Mechanical Second year filed a patent on Folding Bicycle and Its Mechanism of Folding. The design relates to all terrain folding bicycle which can be easily folded and carried. The design has been appreciated at various technical events in the vicinity.

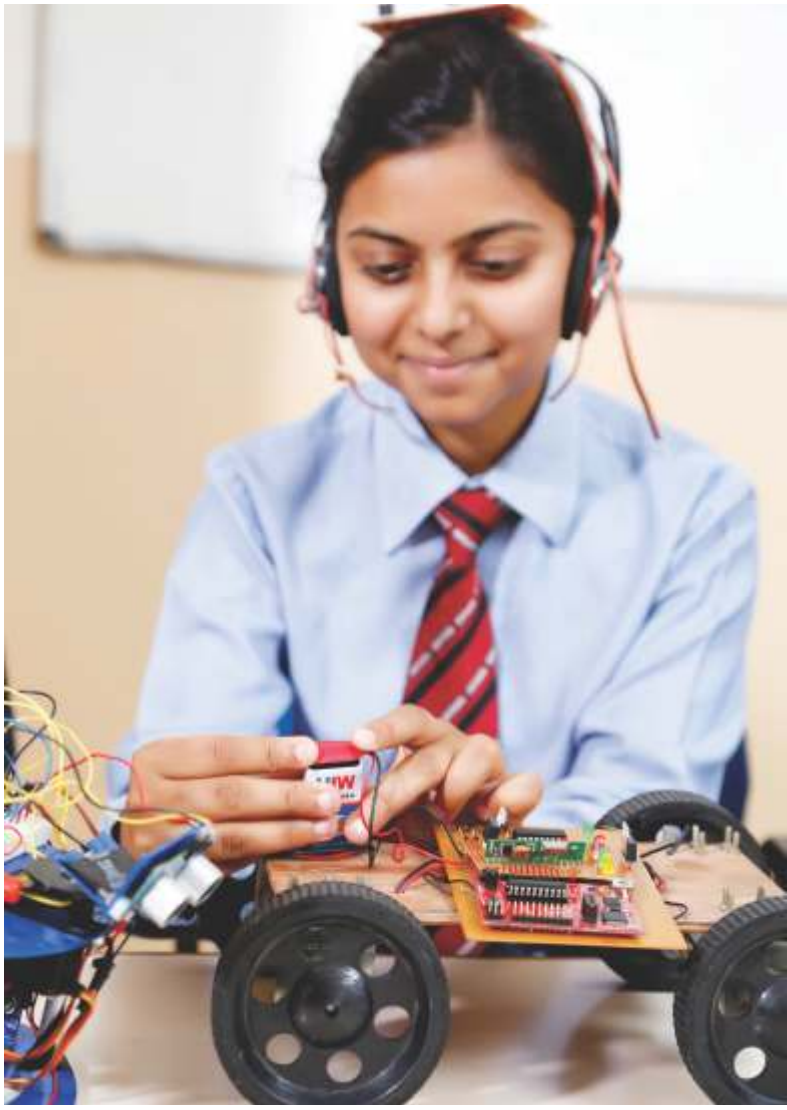
ELECTRONIC CARD FOR SIMULTANEOUS WORKING OF MULTIPLE OPERATING SYSTEMS FOR A DIGITAL ELECTRONIC DEVICE

Trinkush Singla, Sonanshu, Tina and Sumeet Singh Arora students of B.Tech first year filed a patent on Electronic Device for Simultaneous Working of Multiple Operating System on a Digital Electronic Device. This is a software based card that integrates two operating systems (OS) of digital electronic products such as smart phones, tablets, computers, notebooks etc. More specifically, it is an integration of multiple operating systems embedded and running on a single electronic card. Such electronic card is capable of supporting virtual switch without actual switching process.

'INTELLIGENT SOLAR TRACKER WITH A COMPRESSORLESS REFRIGERATOR'

Nikita Aggarwal alongwith her team members Bhavika Mittal, Ravneet Kaur, Manmohit Kaleka and Kiran Chauhan got grant-in-aid of Rs. 20,000/- from The Institution of Engineers, Kolkata for their project ëIntelligent Solar Tracker with a Compressorless Refrigeratorí.

EXPLORE.
DREAM.
DISCOVER.



BIG BUSINESS GREETS OUR STUDENTS WITH OPEN ARMS ...

Strong academic legacy, personal attention, student centered education, outstanding teachers and a great place to study are just some of the highlights of the academic framework at Chitkara University. We have established an unassailable reputation for very strong on-campus recruitment by sheer virtue of our intensive focus on making our students 'industry ready'.

OVERVIEW ON CAMPUS RECRUITMENT FOR OUR ENGINEERING PROGRAMS

Our Engineering graduates go on to great careers, weíre hands on and responsive in our teaching, we provide a great environment to study and our research is world class. We have established an unassailable reputation for very strong on-campus recruitments on the sheer virtue of our intensive focus on making all our graduates ìindustry readyî, but brilliant campus recruitment is a end result of our teaching approach which is learning-centric enhancing knowledge, skills, and understanding through practical experience.

15th batch of Engineering graduates from Chitkara University, Punjab & 9th batch of Engineering graduates from Chitkara University, Himachal Pradesh appeared for the campus recruitment process this year.

Some of the major highlights of the campus recruitment for the batch graduating in the year 2016 were

- **124 companies** came on-campus for hiring Chitkara Engineering students (Most of the companies are listed on the next page)
- Out of batch of 992, around **218 students got "Dream Job Offers"** from marquee companies such as Amazon, HP Labs, Toshiba, Cisco, Evalueserve, Integreon, Flipkart, Practo and Zscaler.
- Some of the top on-campus recruiters were as follows -
  Infosys-238 / Capgemini-114 / iNautix-76 / Alliance Global-57 / Tech Mahindra-36
- In keeping up with the campus recruitment trend since the year 2006, not many students were available for placements after the first week of campus recruitment. So the companies such as **Ericsson / Unisys/ Emerson/ Amdocs / Hitachi/ Newgen / Cybage** picked up small numbers.
- For Mechanical Engineering students, some of the major companies that visit our campus are -
  Mahindra & Mahindra / Honda / Eaton/ SML ISUZU/ Yamaha/ L& T / Escorts / Tata Technologies / Punj Lloyd / Denso / Apollo Tyres / Jindal Saw / Motherson Sumi / Godrej / Coca Cola.
- For Civil Engineering students, some of the major companies which visit our campus are -
  L&T Construction / Sobha Developers / 3 C / Shapoorji Pallonji / Sterling & Wilson / Cinda Construction / Lafarge / Afcons / DLF / Raheja Construction / JSW Steel / Mahindra EPC

Some of the major companies that visited our campus this year and hired our Engineering graduates.

IT Industry

Microsoft	Google	ORACLE	amazon	IBM
SAP	accenture High performance. Delivered.	Infosys	WIPRO	HCL
Tech Mahindra	ca	PERSISTENT	Adobe	Cognizant
Sapient	CSC	iGATE	flipkart.com	NEWGEN
Bank of America	CONVERGYS	vodafone	UST Global	Quark
virtusa	NUCLEUS SOFTWARE	EMERSON	calsoft	L&T Technology Services
CITRIX	orange	CISCO SYSTEMS NETWORKING ACADEMY	nagarro the brightest minds	amdocs
i|Nautix technologies inc	ALLIANCE THE SOFTWARE INSIDE	EXOUSIA	GEMINI SOLUTIONS	Prolifics
syscom A Morpho Company	XL Dynamics	zomato.com	epic research	zscaler
Cybage	bebo Technologies	HLS ASIA LIMITED	optymyze	aayuja

Some of the major companies that visited our campus this year and hired our Engineering graduates.

IT Industry

DELL	ARICENT	fiserv.	Panasonic	CompuGain
4S FOURSOFT Internet Solutions for Logistics	xansa RESOURCING SOLUTIONS	Hexaware TECHNOLOGIES YOUR SUCCESS IS OUR FOCUS	clicklabs	American Megatrends
WINSHUTTLE	JKT A Global IT Solutions, Consulting and Services Company	uTrade Enabling Smarter Trading	UNISYS	TT CONSULTANTS
jade GLOBAL	INTERGLOBE TECHNOLOGIES	ZenSar TECHNOLOGIES	FLEXTRONICS	tbs
edifecs	TRIGENT OVERCOMING LIMITS	KEWILL	Infotech Creating Business Impact	bitwise
ess	Quick Heal Security Simplified	InfrasoftTech	Birla soft®	steria
NIIT	Hitachi Consulting	ZYCUS	TOSHIBA Leading Innovation	VIDEOCON
tavisca	SPAN Steering Progress. Together.	PAXCEL A Passion for Excellen	SMARTDATA TECHNOLOGIES	SafeNet
MICROLAND	ERICSSON	NEC	Capgemini	eClerx Data I Domain I Delivery
nagarro	AGC	AON	BARCLAYS	baton FROM CONTACT TO CLOSURE

Some of the major companies that visited our campus this year and hired our Engineering graduates.

Semi Conductors / KPO / Consulting

BEROE	Integreon	GENPACT	absolutdata Research&Analytics
Capital IQ A Division of Standard & Poor's	EVALUESERVE YOUR GLOBAL KNOWLEDGE PARTNER	Copal Partners	SAMSUNG
cadence	NXP	ARM	KPMG
Texas Instruments	SAP	hp	NVIDIA

Some of the major companies that visited our campus this year and hired our Engineering graduates.

Heavy Engineering /Automobile / Construction

Mahindra	L&T Construction	ESCORTS	DENSO
u-shin	MIND	VE COMMERCIAL VEHICLES A VOLVO GROUP AND EICHER MOTORS JOINT VENTURE	apollo
KEC KEC INTERNATIONAL LIMITED	JINDAL	JCB	Godrej

Some of the major companies that visited our campus this year and hired our Engineering graduates.

Heavy Engineering /Automobile / Construction

TATA TECHNOLOGIES	JSW Steel	ASHOK LEYLAND	AIS Asahi India Glass Ltd.
Coca-Cola	Hero	LUMINOUS Engineering & Technology Services	IR Ingersoll Rand Inspiring Progress
JK TYRE & INDUSTRIES LTD	SML ISUZU	ISMT LIMITED Solutions You Can Trust	Kirloskar
Punj Llyod	SONALIKA INTERNATIONAL ISO 9001:2000 COMPANY	LG	ŠKODA
CINDA CTCI GROUP Engineering & Construction Pvt. Ltd.	THE 3C COMPANY CREATE I CARE I CONSERVE	AFCONS AFCONS INFRASTRUCTURE LIMITED A Shapoorji Pallonji Group Company	COLLAGE GROUP people make spaces
EVEREST Complete Building Solutions	STERLING AND WILSON	ERA Believe in difference	CUMI
SOBHA PASSION AT WORK	Shapoorji Pallonji	LAFARGE Building better cities	DLF BUILDING INDIA
RAHEJA DEVELOPERS	NCC NCC Limited	GMR Infrastructure	AMARA RAJA Gotta be a better way

OPPORTUNITIES AREN'T GIVEN

THEY'RE MADE.

CHITKARA MADE

COMPUTER SCIENCE & ENGINEERING

4-Year Bachelor of Engineering

From home video game systems to hospital monitoring equipment, computer systems are part of every aspect of contemporary culture. Computer scientists and engineers design, build and improve these systems, finding new applications for sophisticated technology.

You'll receive a solid background in Engineering fundamentals that will allow you to adapt to newly introduced systems and methods; you'll also have the chance to work with well-respected researchers and an outstanding faculty on projects that represent the cutting edge of Computer Science today.

COMPUTER SCIENCE & ENGINEERING

4-Year Bachelor of Engineering

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.

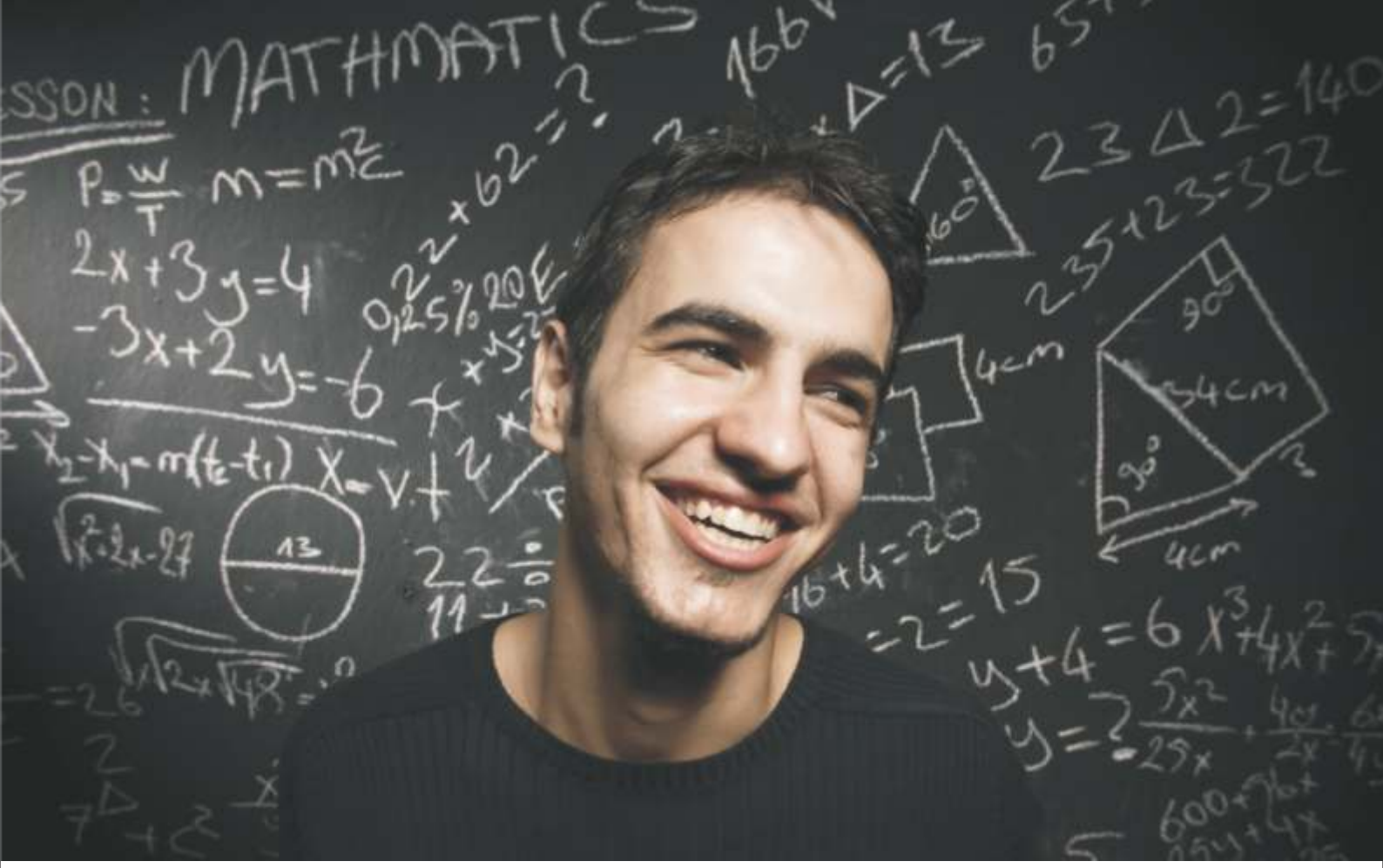
Student Outcomes for our Computer Science Programs

- 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.

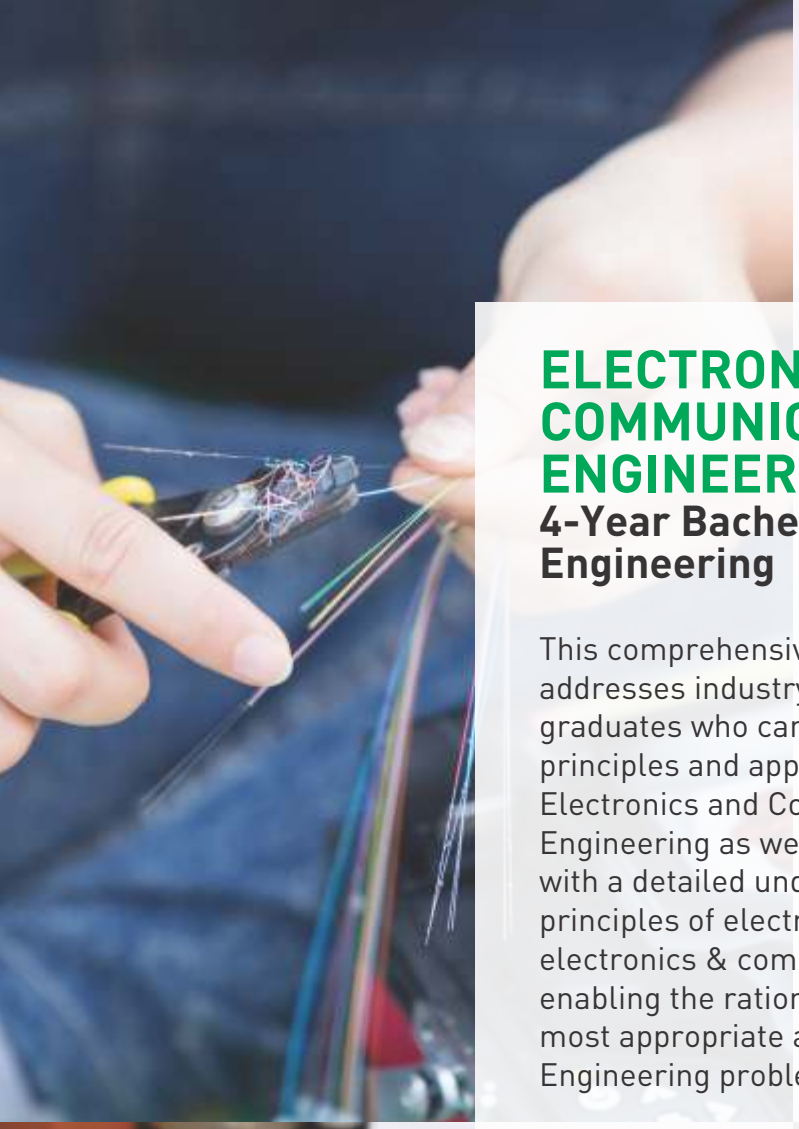
Major Laboratories include: Theoretical Computer Science and Language Processing/ Open Source technologies/ Data technology/ Grid-Cloud Computing/ Software Systems/ Computational Intelligence, High Performance Computing/ Mobile Computing and Intel Multi-core laboratories and Image Processing. All labs 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

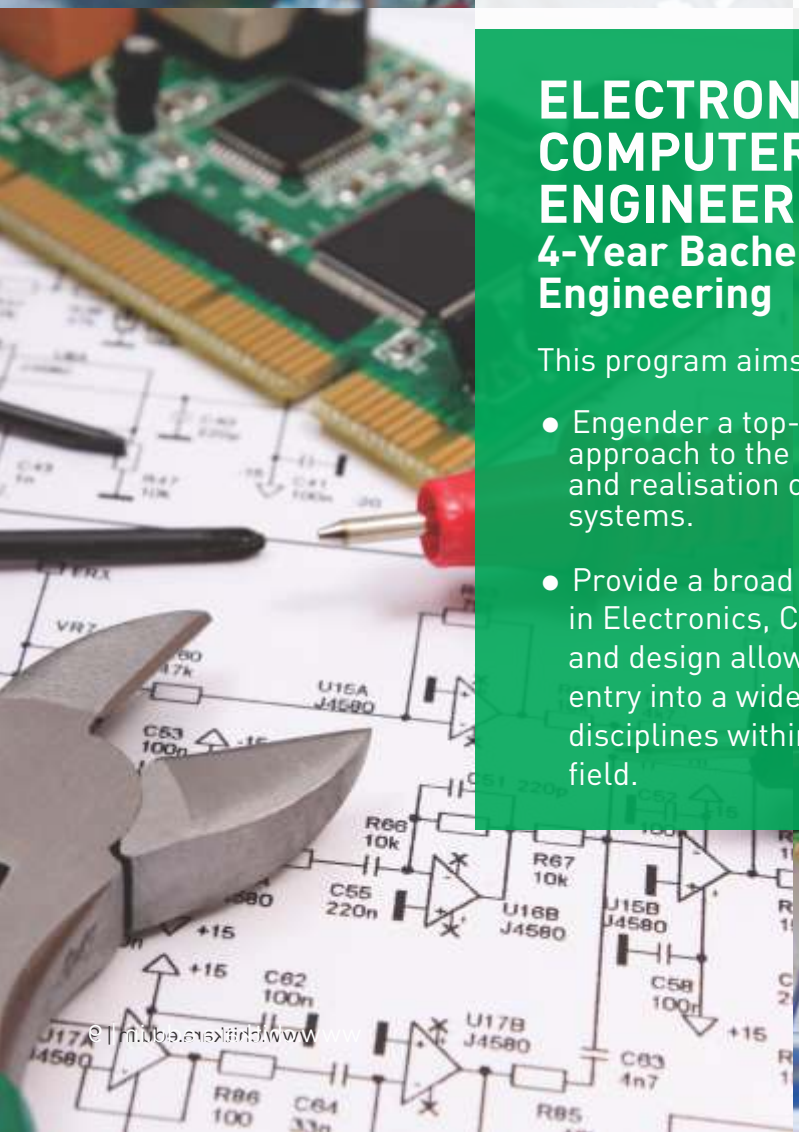
We have leading blue chip companies such as; Google, Microsoft, Amazon, Infosys, Wipro & HCL Technologies coming to campus year after year for recruitment events.



ELECTRONICS & COMMUNICATION ENGINEERING

4-Year Bachelor of Engineering

This comprehensive program addresses industryís demand for graduates who can integrate the principles and applications of Electronics and Communications Engineering as well as furnish you with a detailed understanding of the principles of electrical Engineering, electronics & computer systems, enabling the rational selection of the most appropriate approach to solve Engineering problems



ELECTRONICS & COMPUTER SCIENCE ENGINEERING

4-Year Bachelor of Engineering

This program aims to

- Engender a top-down systems approach to the analysis, synthesis and realisation of computer systems.
- Provide a broad based education in Electronics, Computer Sciences and design allowing scope for entry into a wide range of disciplines within the Engineering field.

ELECTRONICS & COMMUNICATION ENGINEERING

4-Year Bachelor of Engineering

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 ñ 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.

ELECTRONIC AND COMPUTER SCIENCE ENGINEERING

4-Year Bachelor of Engineering

Program Objectives

Electronic Engineering and Computer Science are both concerned with enhancing our experience of the world and shaping the convenience of our future in terms of solving problems and developing products and systems which will increase the accuracy, speed and quality of information sources and technology. These disciplines are closely linked and specifically interwoven in the manufacture of equipment such as pocket computer products like mobile phones or e-books.

Electronic Engineering and Computer Science encompasses not just the software aspects of computing but also the hardware. Knowing how the hardware works as well as the software enables the design of systems that incorporate both counterparts and presents an understanding of the whole process from writing software that works on a particular operating system to the communication of this operating system with the hardware.

Combining these two disciplines gives you an excellent grounding in both subject areas and prepares you for a wide range of careers in both or either fields. This cross-discipline study gives you the advantage of becoming a multi-skilled professional engineer with a thorough understanding of the concepts and techniques from other closely related areas that are likely to influence and affect your career, such as object oriented programming or artificial intelligence.

Why choose Electronic Engineering and Computer Science at Chitkara University?

- In combining the two disciplines you will gain an excellent grounding in both subjects plus the chance to explore the exciting interface between the two .
- Interdisciplinary teaching within the University gives you access to cross-discipline modules taught by subject specialists.
- Our staff are conducting world-leading research in machine learning, memory technology and biomedical electronics , enabling you to keep your finger on the pulse of the latest advances throughout your degree.
- You will obtain hands-on practical experience of designing and constructing electronic systems using computer simulation and practical laboratory work.
- This cutting-edge program adapts to discuss the latest developments in electronics technology.

What you'll study

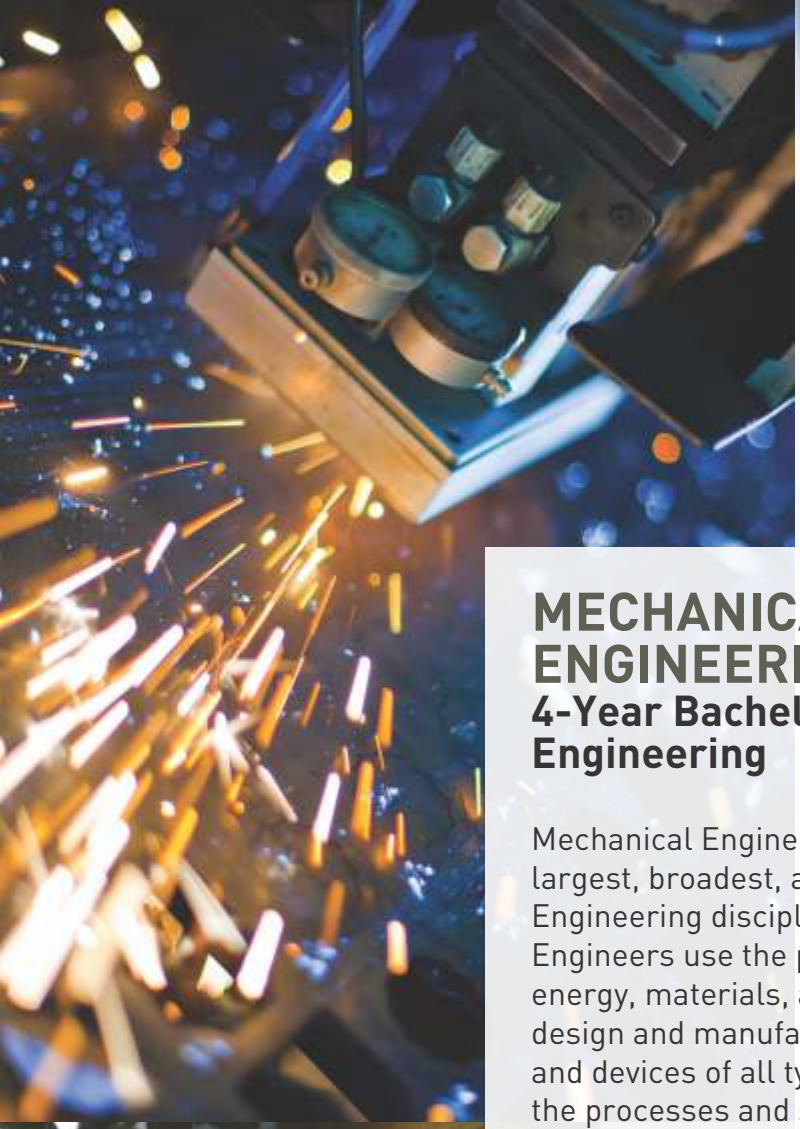
Our Electronic Engineering with Computer Systems programs will provide you with knowledge of electronics and its application, computer systems and the latest software, preparing you for a career in the information technology and computing industries. These degrees are designed to cross the boundaries between hardware electronics, software and computer systems.

Following a common core in electronics and computing, you will take modules in computer programming, operating systems, computer architectures, computer graphics, networking and the structure and operation of the internet, enabling you to develop a thorough understanding of modern computer systems and their operation.

Advanced options are available in the third and fourth year, covering topics such as digital signal processing, data and internet networking, mobile devices, multimedia systems, image processing, speech analysis, graphics, computer vision, and artificial intelligence and AI programming. Individual project work utilises state-of-the-art computing and audiovisual processing facilities, giving you access to the latest mobile computing devices.

Careers

Combining these two disciplines at Chitkara gives you an excellent grounding in both subject areas and prepares you for a wide range of careers in both or either fields. This cross-discipline study gives you the advantage of becoming a multi-skilled professional engineer with a thorough understanding of the concepts and techniques from other closely related areas that are likely to influence and affect your career, such as object oriented programming or artificial intelligence.

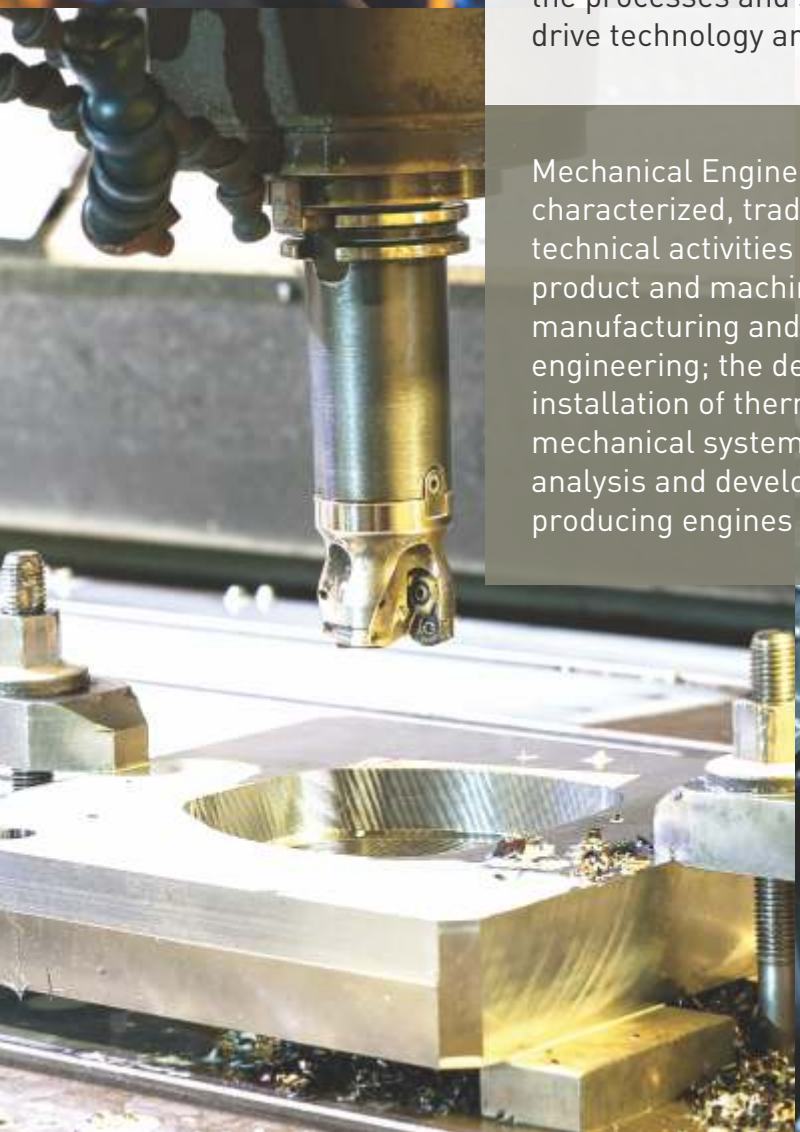


MECHANICAL ENGINEERING

4-Year Bachelor of Engineering

Mechanical Engineering is one of the largest, broadest, and oldest Engineering disciplines. Mechanical Engineers use the principles of energy, materials, and mechanics to design and manufacture machines and devices of all types. They create the processes and systems that drive technology and industry.

Mechanical Engineering has been characterized, traditionally, by broad technical activities in the areas of product and machine design; manufacturing and production engineering; the design and installation of thermal-fluid and/or mechanical systems; and the design, analysis and development of energy producing engines or devices.



MECHANICAL ENGINEERING

4-Year Bachelor of Engineering

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 maintainance, 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.

MECHANICAL ENGINEERING – with Specialisation in Automobiles

4-Year Bachelor of Engineering 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 OEMís, 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

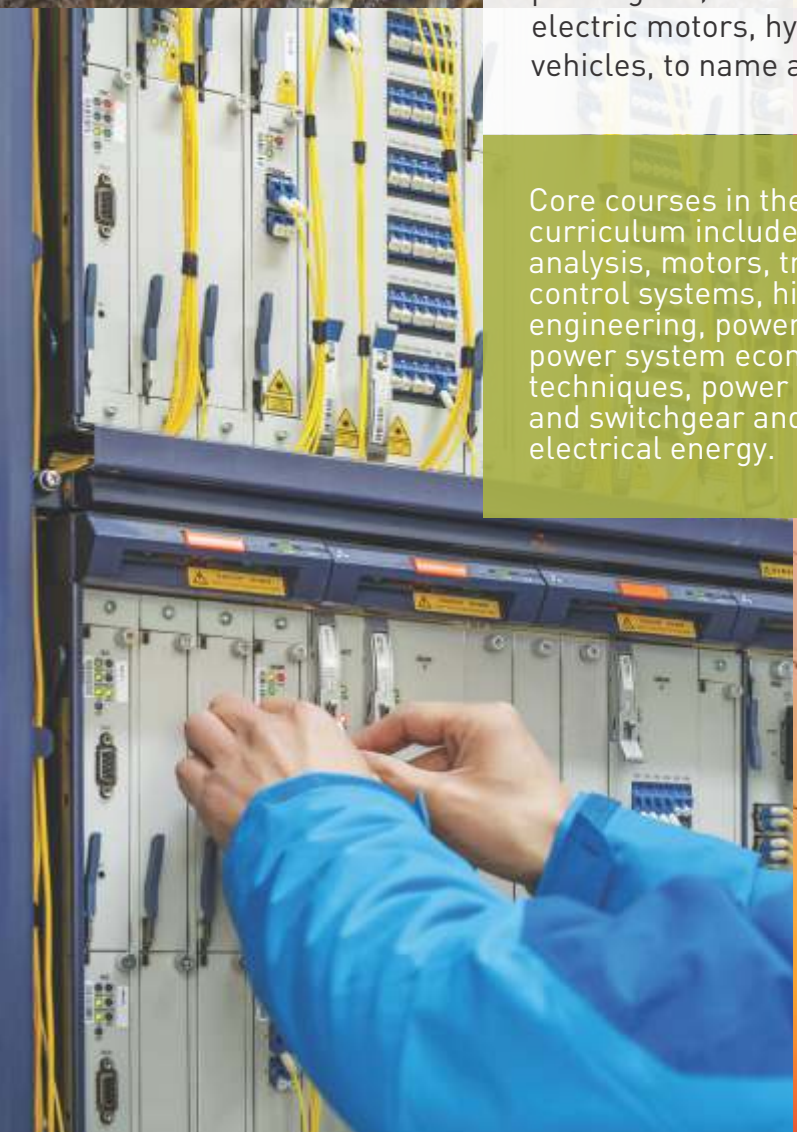
We have leading mechanical and automotive companies visiting our campus regularly for placement activities. Our students have also obtained placements at leading companies such as Tata Motors, Maruti, Mahindra & Mahindra and many more.

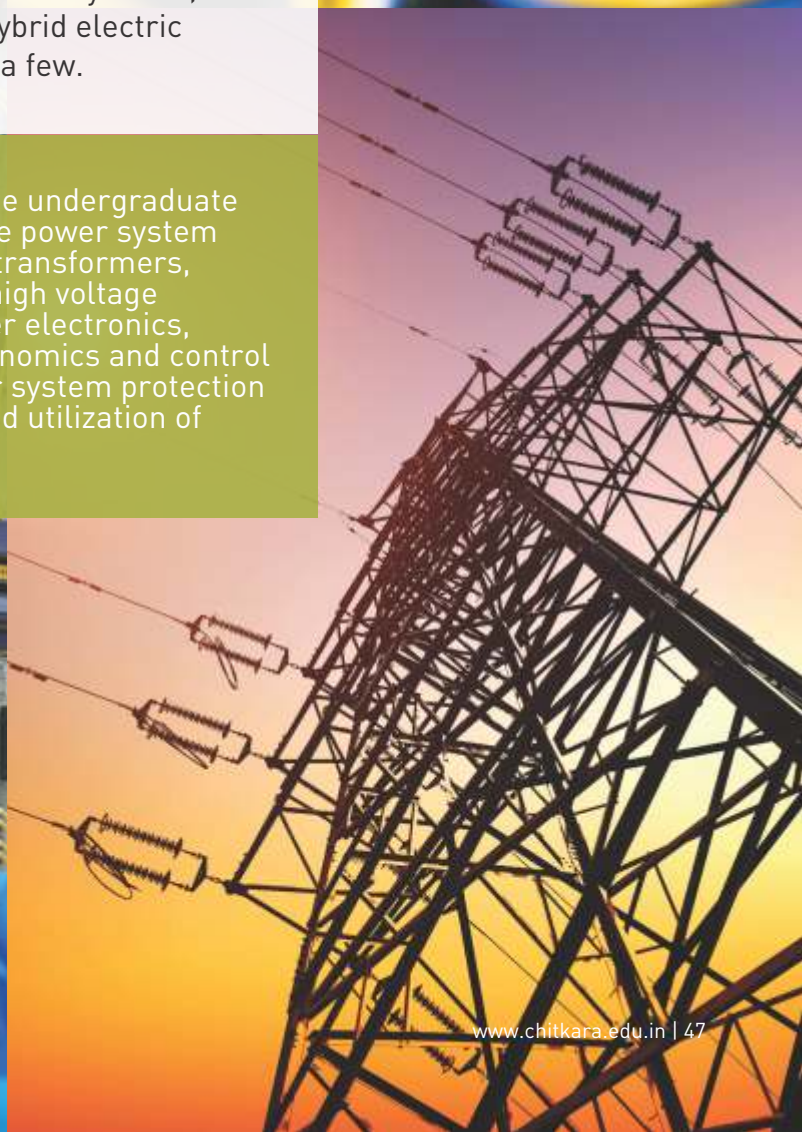
ELECTRICAL ENGINEERING

4-Year Bachelor of Engineering

Electrical Engineering primarily deals with the generation, transmission, control and utilization of electrical energy on a large scale. Electrical engineers work on large power grids, electrical systems, electric motors, hybrid electric vehicles, to name a few.

Core courses in the undergraduate curriculum include power system analysis, motors, transformers, control systems, high voltage engineering, power electronics, power system economics and control techniques, power system protection and switchgear and utilization of electrical energy.





ELECTRICAL ENGINEERING

4-Year Bachelor of Engineering

Program Objectives

Electrical engineering is one of the largest and most diverse technological and engineering disciplines in today's world. Electrical engineering is the study and application of electricity, electronics and electromagnetism for the development and maintenance of electrical and electronics equipments such as electric motors, navigation systems, medical devices, broadcast and communication systems, power generation systems, electrical distribution systems, electric grids etc., while keeping in mind the safety, quality, economic feasibility and sustainability of these products and systems.

Based on the fundamentals of Physics and Mathematics, Electrical Engineering became a field of it's own in the 19th century due to innovations such as the generator, motors, telephone, wireless communications and electronics. Since then, electrical engineering has sure come a long way. Not only has it been one of the major driving forces behind cutting edge technology in areas such as power engineering, computer engineering, communications and mobile technologies, it has also significantly impacted several other fields such as nanotechnology, biomedical engineering, neuroscience and biotechnology, to name a few.

Electrical engineering students use science, engineering, technology and analytical reasoning, creative and critical thinking skills to solve problems and design, construct and maintain electrical and electronics products. Some sub disciplines of electrical engineering are: electronics, digital computers, power engineering, telecommunications, control systems, RF engineering, signal processing, instrumentation, and microelectronics. India is home to renowned universities for electrical engineering, both at the undergraduate and graduate level.

Academic Framework

First year of engineering will cover basic science courses such as Mathematics, Physics, Chemistry and an overview to other engineering disciplines such as basic mechanical engineering, basic civil engineering, electronics, introduction to computers etc.

Second and third year will expose students to core subjects in electrical engineering. For Electrical Engineering students, core courses are power system analysis, motors, transformers, control systems, high voltage engineering, power electronics, power system economics and control techniques, power system protection and switchgear and utilization of electrical energy. There will also be elective subjects where students can choose courses that they are interested in specializing further in. **Fourth Year will be an Internship in blue chip & multinational companies.**

Cutting Edge Laboratories & Facilities

We have world class labs including:

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

Careers

Electrical Engineers are much in demand in India. In the recent years, from house to companies every where there is a necessity of electricity to function, offering numerous opportunities to electrical engineers. These engineers can work in atomic power plants, hydel or thermal power plants. Job opportunities are ample in both private and public sector like railways, civil aviation, electricity board and utility companies, electrical design and consultancy firms and all types of manufacturing industries.

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

Core companies such as Qualcomm, Intel, Ericsson, NVidia, Analog Devices Ltd, Broadcom, Cisco systems, Cosmic circuits, Ericsson India Global Services, Eaton technologies, IBM, Schneider electric, General Electric, Analog devices, Cosmic circuits Pvt Ltd, KLA Tencor, NTT Communications, Texas Instruments also hire Electrical Engineers.

Other sectors (software, internet, manufacturing, oil and gas, power etc): Shell, TATA technologies, DRDO, Dr.Reddy's Laboratories, HCL technologies, Google, Microsoft, Power grid corporation of India Ltd, Samsung, Sony corporation, TATA Motors, Toshiba.

CIVIL ENGINEERING
4-Year Bachelor of Engineering

Are you a problem solver? Civil Engineering is about problem solving. All over the world problems concerned with housing, fresh water, sustainability, and transport need to be solved.

Changes in population, climate and technical developments in our built and natural environment mean that Civil Engineers are more important than ever.

Our 4-Year Civil Engineering program will teach you about:

- Structural design & Engineering
- Fluid Mechanics & Water Engineering
- Geotechnical Engineering
- Design & Project Management
- Maths & Modelling of Engineering problems

CIVIL ENGINEERING

4-Year Bachelor of Engineering

Introduction to Civil Engineering

Civil engineers design and build things that are part of our daily lives. They build our homes, schools, the places where we work, our roads, bridges, railways, and airports. They also build the things we donít see that we use every day like the water system we use when we wash our hands or take a shower and the electricity system we use to power our computers and charge our mobile phones. They get rid of the things we throw away.

What do Civil Engineers do?

Civil engineers work in many different areas. Most importantly, civil engineers work with many other professionals in teams to make our world a better place.

- Earthquake engineers make sure structures can withstand earthquakes.
- Environmental engineers protect the environment and protect us from extreme weather.
- Geotechnical engineers focus on the ground, which affects everything built on it (buildings), with it (dams and levees) and in it (tunnels and pipelines).
- Project Management engineers make sure entire projects are delivered on time and on budget.

Where do Civil Engineers work?

If you want to be on a construction site, building, testing and monitoring developments then you can be. If you prefer to be in the office designing and problem solving then you can do that too. With engineering, you can follow your interests both in what you do and where you do it. If you are interested in sport you can work as an engineer to create amazing sporting venues.

If you want to make a difference in peopleís everyday lives you can work in a team to rebuild a community following a natural disaster ñ or even prevent the disaster from happening in the first place. If design is your thing you can be part of the engineering team that overcomes technical challenges of building truly fabulous places.

Engineers work in lots of different places, like offices and laboratories, but also on sites that can be in exciting and far-flung places, or places others never get to go, such as underground and at sea. These opportunities make civil engineering one of the most exciting careers around!

Program Contents and Academic Framework

Students take a common core of Civil Engineering courses, and they can specialize in the areas of geotechnical, or structural engineering etc. Our curriculum lays intensive focus on:
Strenghth of Materials/ Construction Technology/ Soil Mechanics/ Concrete Technologies/ Structural Analysis/ Building Drawing/ Reinforced concrete structures/ Transportation Engineering/ Hydraulic Structures and Machinery/ Environmental Engineering / Design of Steel Structures / Water Resource Engineering / Construction Management

Cutting Edge Laboratories & Facilities

Students have access to every facility in the form of 9 well-equipped labs. These are

- Structure and construction engineering lab
- Computer lab
- Soil mechanics lab
- Hydraulics and fluid machinery lab
- Strength of materials lab
- Concrete and highway lab
- Survey lab
- Environmental engineering lab
- Remote sensing and GIS lab

Career prospects

Engineering companies all over the world are in need of civil engineers to develop new technologies, build better buildings, create better cities, get people to where they want to go in the best way possible, and counter the devastating effects of climate change. In other words, to improve the future of the planet. This means that the civil engineers of tomorrow (you!) are in demand. With a good education and a positive attitude you will be able to secure an exciting, well-paying job that offers you opportunities to work at the cutting edge of your field, all over the globe.

INFORMATION TECHNOLOGY PROGRAMS

Information Technology is a broad term that includes all aspects of managing and processing information and related technologies. IT professionals are responsible for designing, developing, supporting and managing computer hardware, computer software, and information networks, including the Internet.

The realworld applications of information technologies can be found everywhere. Examples of real world application of information technology includes computer software used to manage basic computer applications, computer generated animation in popular movies, networks and programs that allow you to purchase online, and satellites and systems that enable remote space exploration.

BACHELOR OF COMPUTER APPLICATIONS

3-Year BCA

Program Objectives
Fast growing information technology and communication systems have become critical components of almost every company's strategic plan. Companies which want to take advantage of the new information technologies and communication systems require expert professionals, who can apply computer science principles to solve problems produced by the interface between business and technology. Our BCA program is an undergraduate program where students are exposed to various areas of computer applications including the latest developments in the industry.

5-Year Integrated BCA-MCA

Program Objectives
Students enrolling in this program can pursue Bachelorís as well as Master of Computer Application without taking a break. Through this program students not only get a world class, ìindustry-readyî 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.

BCA Course Overview
Computer Fundamentals / C programming / System Analysis & Design / Web Design & Internet Programming / Organizational Behaviour / Visual Basic / Computer Laboratory & Practical work

Specialisations
Computer Graphics / Programming Languages / Database Management / Systems Analysis / Word Processing / Internet Technologies / Accounting Applications / Animation / Music and Video Processing / Personal Information Management

Who can and Who should pursue BCA Degree
Candidates who are obsessed with computers, what they do and how they do, so called 'Computer Freaks' are very worthy of acquiring B.C.A. Those candidates who want to have sound knowledge in key areas of computer science or industrial computing should go for this Computer Science degree. There are candidates who love computers but are limited by their knowledge of the computers can also benefit from the course not to mention the lucrative job offers that will come up.

Benefits of BCA Program

- The program provides a sound academic base from which an advanced career in Computer Application can be developed.
- Bachelor in Computer Application Students have a bright future in the IT field as they can take up ample jobs as programmers and grow to become project managers.
- B.C.A. also paves way for a post graduation in the relevant field which is always preferred.
- B.C.A. provides substantial understanding of concepts in key areas of Computer Science.

Job Scenario for BCA Graduates

Fast growing information technology and communication systems have become critical components of almost every companyís strategic plan. Companies which want to take advantage of the new information technologies and communication systems require expert professionals, who can apply computer science principles to solve problems produced by the interface between business and technology.

Employment Areas

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

Job Types

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

Campus Recruiters for BCA Graduates

Some of the major companies that visited Chitkara University and hired our BCA Graduates.

MASTER OF COMPUTER APPLICATIONS

2-Year MCA (Lateral Entry)

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.

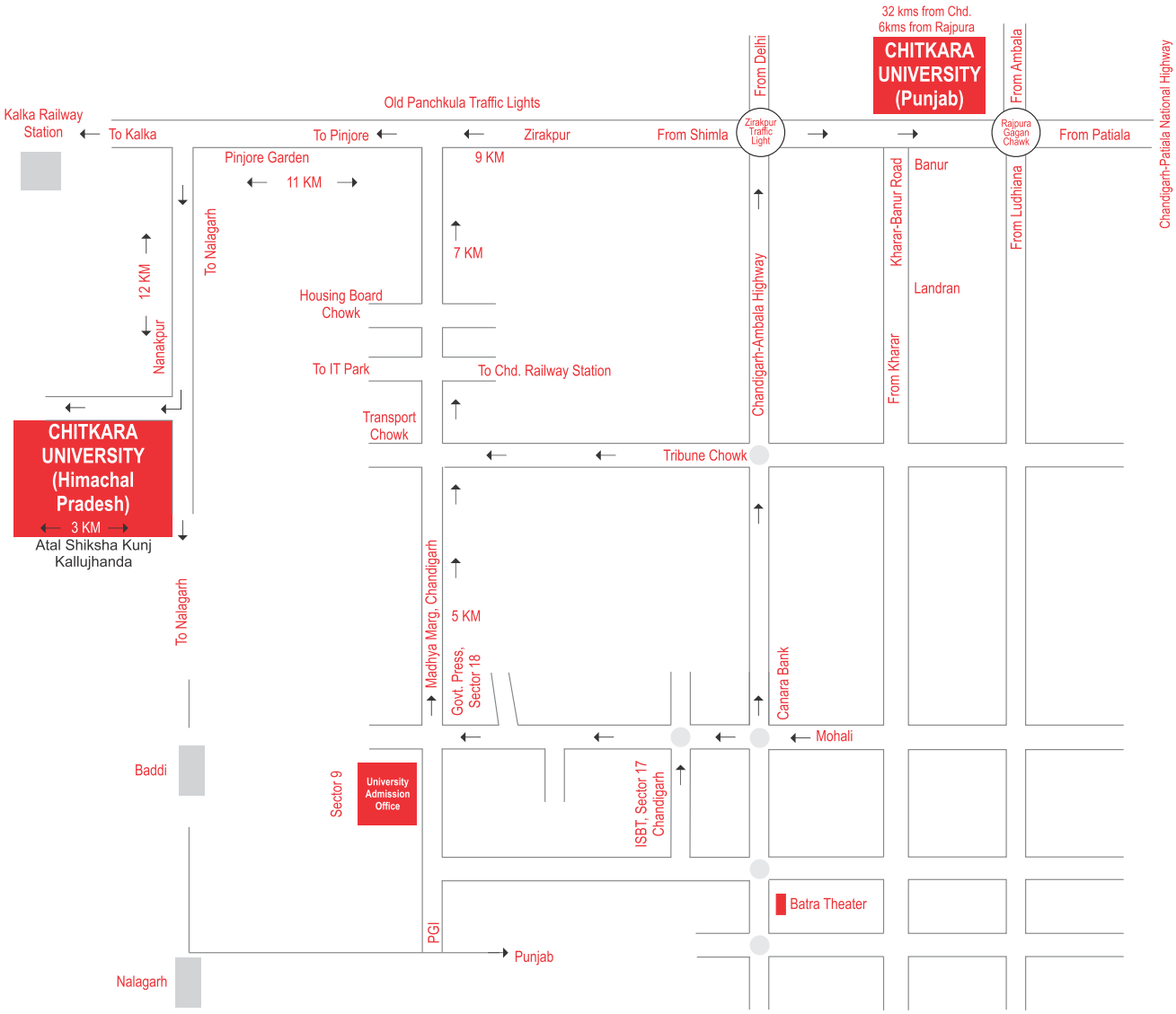
Program Contents and Academic Framework

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

CHITKARA UNIVERSITY



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 boast 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 give a miss call on 1800 267 1999

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CHITKARA UNIVERSITY

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