

# From Chitkara to Deakin

Your pathway to a world-class  
qualification in software or  
mechatronics engineering.

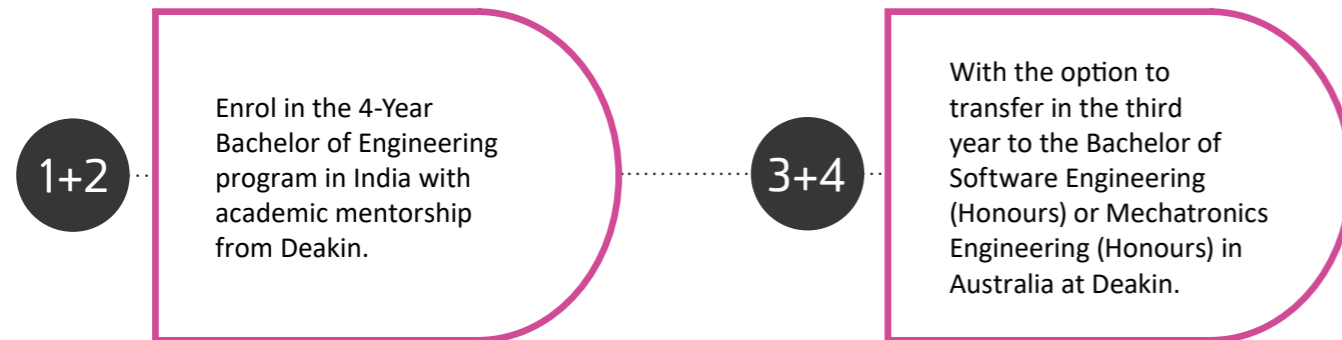


**CHITKARA**  
UNIVERSITY



# Engineer your future with Deakin University, Australia

Deakin University, Australia, and Chitkara University, India, have come together to offer you an exciting pathway opportunity. You will start your software engineering or mechatronics engineering bachelors program at Chitkara University in India, with the option of transferring your studies in your third year to Deakin.



## DEAKIN UNIVERSITY, AUSTRALIA



In the Top 1% of all universities worldwide\*



In the Top 50 young universities in the world\*



Highest level of overall student satisfaction in the Australian state of Victoria for 11 years†

### About Deakin University, Australia

A high-quality education, excellent employment prospects and a university experience you will love – this is what Deakin University has to offer.

Deakin's approach to learning places emphasis on practical experience and our curriculum is informed by the best in industry. Your engineering degree will include industry placements, which will give you the opportunity to apply your knowledge and explore your career options. And through our unique DeakinTALENT graduate employment services you will be able to directly connect with employers, build your experience and prepare for your graduate job search.

As we move into an increasingly digital future, Deakin has invested in the latest technology, state-of-the-art learning tools and facilities to ensure our students are ready for the jobs of tomorrow. This includes our electrical and renewable energy labs and design and product realisation labs.

But we offer more than just a quality Australian degree. Students can get involved through more than 150 clubs and societies, or make use of Deakin's wide range of student support services. You don't just study a degree at Deakin – you get a life-changing experience while investing in your career.

#### Our campuses

Deakin has four modern, fully equipped campuses and an innovative online learning environment (Cloud Campus). Each campus offers a unique and stimulating teaching, learning and research environment. Deakin's Bachelor of Software Engineering (Honours) is offered at the Melbourne Burwood Campus, and the Bachelor of Mechatronics Engineering (Honours) is offered at the Geelong Waurn Ponds Campus.

### About Chitkara University, India

Whatever the dream, Chitkara University can help you get there. Located just 30 km from Chandigarh, Chitkara's campuses in Punjab and Himachal Pradesh offer a world of learning that will help you reach your goals. An opportunity to get placed at one of the 700+ companies that visit for campus recruitment.

Breakthrough programs. Rising rankings. Outstanding alumni network. Highly rated academic credentials. Unlimited opportunities to embark upon research from day one. Experience global education with 250+ foreign University Partners. Kickstart your startup idea at one of the largest University Incubators. Any discipline you pursue at Chitkara University, your success is assured.

Chitkara Engineering Programs were initiated in the year 2002, with a focus to prepare students for engineering careers in a rapidly changing, technology-driven world. India prides itself in producing brilliant engineering minds that lead some of the most technology-driven companies in the world. And Chitkara University is at the forefront of mentoring these students through our flagship engineering programs. Our commitment to engineering excellence has found a wider recognition in the industry, as well as academia at the international stage. This has led us to a partnership with Deakin, ranked in the Top 1% of all universities for Engineering and Technology.

## CHITKARA UNIVERSITY, INDIA



Ranked in the Top 20 universities in India



Learn from some of the brightest and most inspiring academics



Access state-of-the-art labs, design studios, sporting and social facilities

\* ShanghaiRankings World University Rankings  
 † QS Young University Rankings

‡ Australian Graduate Survey and Graduate Outcomes Survey, QILT

# Study software engineering

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

## About software engineering

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

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

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

### Your degree

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

## Learning outcomes

- communication
- digital literacy
- critical thinking
- problem solving
- self-management
- teamwork
- global citizenship

## Program highlights

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



## Work experience

Deakin's software engineering program includes a professional unit where you will be required to undertake at least 60 working days of industry experience. You will also have an opportunity to use your elective units to apply for an industry-based learning position, or alternatively a short-term career placement to work on industry projects, gaining experience in entrepreneurship and business skills.

## Program framework

At Chitkara University (Years 1 and 2) you will study:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Engineering Physics</li> <li>• Discrete Mathematics</li> <li>• Introduction to Programming</li> <li>• Computer Systems</li> <li>• Academic Integrity</li> <li>• Embedded Systems Development</li> <li>• Data Structures and Algorithms</li> <li>• Concurrent and Distributed Programming</li> </ul> | <ul style="list-style-type: none"> <li>• Data Capture Technologies</li> <li>• Software Engineering 1: Robotics Project</li> <li>• Object-Oriented Development</li> <li>• Data and Information Management</li> <li>• Design Fundamentals</li> <li>• Software Engineering 2: Developing Internet-of-things Applications</li> <li>• Secure Networking</li> </ul> |
|--|---|

Students who opt to take the pathway to Deakin's Melbourne Burwood Campus (subject to meeting transfer conditions) will take the following units in the subsequent semesters in Australia to get the four-year degree in Bachelor of Software Engineering (Honours) from Deakin.

At Deakin (Years 3 and 4) you will study:

	Trimester 1 (March)	Trimester 2 (July)
Year 3	<ul style="list-style-type: none"> <li>• Robotics Application Development</li> <li>• Team Project (A) - Project Management and Practices</li> <li>• User Centred Design</li> <li>• Elective unit</li> </ul>	<ul style="list-style-type: none"> <li>• Team Project (B) - Execution &amp; Delivery</li> <li>• Advanced Embedded Systems</li> <li>• Software Architecture and Scalability for Internet-Of-Things</li> <li>• Elective unit</li> </ul>
Year 4	<ul style="list-style-type: none"> <li>• Research Project A</li> <li>• Developing Secure Internet-of-Things Applications</li> <li>• Elective unit (Level 2,3 or 4)</li> </ul>	<ul style="list-style-type: none"> <li>• Research Project B (Thesis)</li> <li>• Professional Engineering Practice</li> <li>• Elective unit (Level 2,3 or 4)</li> </ul>

Students who continue in the 3rd year of B.E. in Software Engineering at Chitkara University will have the option to specialise in AI and Machine Learning | Data Analytics | IoT. You will also be given opportunities to be part of the campus placement and get a chance to kickstart your career with blue chip companies.

\*Chitkara University and Deakin University are continually striving to improve their programs and their delivery. The information contained in this framework is subject to change without notice.

## Fee structure - Chitkara University

Program Fees Per Semester (1 to 4)

B.E Software Engineering Rs. 1,75,000/-

- Students need to pay Rs.15,000/- towards ERP /Career Advancement Services (CAS) at the time of admission.
- Students who will continue in the 3rd Year of the program at Chitkara University will be required to pay a nominal examination fee of Rs.25,000/- (per semester) for the 3rd & 4th Year respectively and will graduate with a B.E degree in Software Engineering from Chitkara University.

## Admission requirements - Eligibility for the Academic Year 2021\*

- Successful completion of Class XII in Physics, Chemistry and Mathematics with a minimum of 60% aggregate overall (CBSE ISC, IB Diploma, State Boards, Cambridge) and minimum 55% in Mathematics.
- A minimum of 65% in English in Class XII, OR
- Achievement of a minimum score of 6.0 bands on the IELTS English proficiency test with no band less than 6, OR
- TOEFL (Test of English as a Foreign Language) - score of at least 570 (or 230 if computer-based score), plus a minimum TWE (essay) score of 4.0, or IBT score of 88 with no section below 20.
- Mandatory personal interview with our Academic team.

\* Eligibility criteria are subject to change with each Academic year.

## Fee structure - Deakin University

Program Approx. Fee per annum in 2021 (AUD)

Bachelor of Software Engineering (Honours) \$34,400\*

The estimated course fee is based on the tuition fee costs of undertaking 8 credit points of study in the course within the specified year (i.e. the number of credit points that equates to full-time study). Where fees are estimated for future years those will be subject to annual increases in accordance with increases in the cost of course delivery.

\* The course fee shown is indicative only and actual fees may vary.

## Career opportunities

- business analyst
- embedded systems developer
- mobile applications developer
- software developer
- data engineer
- IoT system engineer
- project manager
- systems architect
- develops engineer
- machine learning engineer
- software Engineer
- web applications developer

## Melbourne Burwood Campus

The Melbourne Burwood Campus is Deakin's largest. A short trip from Melbourne's central business district, Burwood offers the perfect balance between city lifestyle and suburban comfort. On campus you will find impressive buildings and world-class facilities, a wide range of learning and social spaces, and a relaxed atmosphere. If you enjoy getting outdoors between classes, the Melbourne Burwood Campus also sits alongside parkland, which is great for walking, jogging and cycling.



# Study mechatronics engineering

Mix electrical, mechanical and robotics engineering into a single degree with a 4 Year B.E in mechatronics engineering in academic mentorship with Deakin.

## About mechatronics engineering

Deakin's Bachelor of Mechatronics Engineering (Honours) prepares you to be an industry-ready engineer capable of creating the electronics, robots and autonomous systems that power our future. Delve into mechatronics engineering principles, then take your learning even further with opportunities to put your skills into practice. Through project-oriented design-based learning (PODBL), you will be challenged to apply theory and science to industry-relevant projects such as the automation of industrial processes using robotics and other cutting-edge technologies, flying drones, 3D printers, robotics and self-driving cars.

Another way Deakin brings an authentic industry experiences to you is through our \$55 million dollar engineering precinct with state-of-the-art simulation and visualisation systems, purpose-built interactive labs and workshop learning spaces. At Deakin you will get hands-on with the very latest engineering tools, take part in work-integrated learning opportunities and hear from the brightest minds in the field with frequent guest lectures. Some of our world-class facilities include:

- one of the largest 3D printing labs in the southern hemisphere
- state-of-the-art mechatronic systems
- industrial robots
- virtual reality lab
- high-voltage lab
- CNC machining centres
- digital manufacturing lab
- mechatronics and electronics lab
- Deakin AusNet Services electrical engineering lab

Through final-year projects, you will gain an introduction to advanced research areas, such as mobile robotics and 3D printing and have the opportunity to design an autonomous robot.

## Work experience

This course includes a professional unit where you will be required to undertake at least 60 working days of practical work experience in an engineering workplace, developing and enhancing your understanding of the engineering profession, possible career outcomes, and the opportunity to establish valuable professional networks during your degree once you move to Australia.

## Program highlights

- This program is jointly developed by mapping Chitkara University B.E. in Mechatronics Engineering to the curriculum of the Bachelor of Mechatronics Engineering (Honours) degree at Deakin, so that students can seamlessly transfer with Credit for Recognition of Prior Learning and graduate with a Bachelor of Mechatronics Engineering (Honours) from Deakin.
- Study and apply your education in superlative infrastructure at both Chitkara University in India and Deakin in Australia.
- Apart from saving hugely on international tuition when you study two years at Chitkara University, a high school student will also learn an applied Australian pedagogy when they start closer to home before opting to transfer after two years to Deakin in Australia. Besides tuition fees, you will also save on boarding and lodging costs when you stay in your home country for the first two years.
- Conditional letter of offer from Deakin is issued to all students at the start of the course that lays down the conditions to transfer to Deakin after successfully completing two years of their study at Chitkara University.
- Students will be coached for the English language proficiency requirement (IELTS) during the first two years of your studies at Chitkara University.

## Learning outcomes

- communication
- digital literacy
- critical thinking
- problem solving
- self-management
- teamwork
- global citizenship



## Career opportunities

- biomedical service engineer
- automation engineer
- robot engineer
- control systems engineer
- electronics test engineer

## Program framework

At Chitkara University (Years 1 and 2) you will study:

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|--|--|
| <ul style="list-style-type: none"> <li>• Sustainable Design</li> <li>• Engineering in Society</li> <li>• Applied Algebra and Statistics</li> <li>• Electrical Systems Engineering Project</li> <li>• Programming and Visualisation</li> <li>• Analogue and Digital Electronics</li> <li>• Embedded Systems Design</li> </ul> | <ul style="list-style-type: none"> <li>• Power Electronics</li> <li>• Engineering Physics</li> <li>• Academic Integrity</li> <li>• Introduction to Mathematical Modelling</li> <li>• Machine Design</li> <li>• Engineering Modelling</li> <li>• Electromechanical Systems</li> </ul> |
|--|--|

Students who opt to take the pathway to Deakin's Geelong Waurn Ponds Campus (subject to meeting transfer conditions) will take the following units in the subsequent semesters in Australia to get the four-year degree in Bachelor of Mechatronics Engineering (Honours) from Deakin.

At Deakin (Years 3 and 4) you will study:

	Trimester 1 (March)	Trimester 2 (July)
Year 3	<ul style="list-style-type: none"> <li>• Mechatronic Design</li> <li>• Systems and Signals</li> <li>• Data Communication</li> </ul>	<ul style="list-style-type: none"> <li>• Professional Engineering Practice</li> <li>• Control Systems Engineering</li> <li>• Dynamics of Machines</li> </ul>
Year 4	<ul style="list-style-type: none"> <li>• Engineering Project A</li> <li>• Intelligent Systems for Autonomous Control</li> <li>• Two elective units</li> </ul>	<ul style="list-style-type: none"> <li>• Engineering Project B</li> <li>• Virtual and Augmented Interfaces</li> </ul>

Students who opt to stay at Chitkara University will enter in the 3rd year of B.E. in Mechatronics Engineering and will take the courses in the 3rd and 4th year to successfully graduate from Chitkara University in the discipline of 4 years Mechatronics Engineering Degree.

\*Chitkara University and Deakin University are continually striving to improve their programs and their delivery. The information contained in this framework is subject to change without notice.

## Fee structure - Chitkara University

Program Fees Per Semester (1 to 4)

B.E Mechatronics Engineering Rs. 1,75,000/-

- Students need to pay Rs.15,000/- towards ERP /Career Advancement Services (CAS) at the time of admission.
- Students who will continue in the 3rd Year of the program at Chitkara University will be required to pay a nominal examination fee of Rs.25,000/- (per semester) for the 3rd & 4th Year respectively and will graduate with a B.E degree in Software Engineering from Chitkara University.

## Admission requirements - Eligibility for the Academic Year 2021\*

- Successful completion of Class XII in Physics, Chemistry and Mathematics with a minimum of 60% aggregate overall (CBSE ISC, IB Diploma, State Boards, Cambridge) and minimum 55% in Mathematics.
- A minimum of 65% in English in Class XII, OR
- Achievement of a minimum score of 6.0 bands on the IELTS English proficiency test with no band less than 6, OR
- TOEFL (Test of English as a Foreign Language) - score of at least 570 (or 230 if computer-based score), plus a minimum TWE (essay) score of 4.0, or IBT score of 88 with no section below 20.
- Mandatory personal interview with our Academic team.

\* Eligibility criteria are subject to change with each Academic year.

## Fee structure - Deakin University

Program Approx. Fee per annum in 2021 (AUD)

Bachelor of Mechatronics Engineering (Honours) \$34,400\*

The estimated course fee is based on the tuition fee costs of undertaking 8 credit points of study in the course within the specified year (i.e. the number of credit points that equates to full-time study). Where fees are estimated for future years those will be subject to annual increases in accordance with increases in the cost of course delivery.

\* The course fee shown is indicative only and actual fees may vary.

## Geelong Waurin Ponds Campus

At Deakin's Geelong Waurin Ponds Campus, you are surrounded by expansive grounds and impressive new buildings. It offers state-of-the-art engineering, medical and sport facilities, including some of the most advanced research spaces in the world.

# Living and working in Australia

## Transfer to Australia

You can apply for transfer to Deakin after studying and demonstrating academic success (with a requisite CGPA of 6.5 on 10.0 scale) at Chitkara University. You will be eligible to transfer into the third year of engineering programs at Deakin with prior learning credits from the first two years of your study at Chitkara University.

You will apply to Deakin for transfer into the third year of Bachelor of Software Engineering (Honours) or Bachelor of Mechatronics Engineering (Honours) programs.

However, in addition to demonstrating academic success at Chitkara University, you have to secure a study visa from the Department of Home Affairs. You will also be eligible to apply for a Post Graduation Work Permit after successful completion of the program.

The software engineering program at Deakin's Burwood Campus in Melbourne makes you eligible to apply for a two-year post study work permit. A graduate of mechatronics engineering at Deakin's Geelong (regional Australia) will be eligible for a three-year post study work permit.

### Other transfer requirements:

- Valid IELTS Score of 6.0 overall with no band less than 6.0 or equivalent.
- No refusal of any visa for Australia.
- Meet the GTE requirements as described by the Department of Home Affairs.
- Have demonstrated academic success while studying first two years of your Engineering at Chitkara University and secured minimum required CGPA (6.5 on 10.0 Scale).

**For comprehensive information about Australian Student visa, visit:** <https://immi.homeaffairs.gov.au/visas/getting-avisa/visalisting/student-500>

## Work in Australia

As an international student at Deakin, you can work part time according to the conditions of your visa. If you are on a student visa, you can work up to 40 hours per fortnight in a trimester when your course is in session. This includes work experience related to your degree, unless it is a mandatory component of that degree. During trimester breaks and holidays, you can work as much as you want. Deakin can even help to find a job that suits you - whether you would like some extra income, or if you are keen to get some work experience related to your degree.

**Initial student visa:** <https://immi.homeaffairs.gov.au/visas/getting-avisa/visa-listing/student-500>

**Student visa extension:** <https://immi.homeaffairs.gov.au/visas/getting-avisa/visa-listing/temporary-graduate-485/>

**Or**

**Skilled recognised-graduate visa:** <https://immi.homeaffairs.gov.au/visas/getting-avisa/visa-listing/skilled-recognition-graduate-476>

**Work during study:** <https://immi.homeaffairs.gov.au/visas/getting-avisa/visa-listing/student-500>

**Work restrictions:** <https://immi.homeaffairs.gov.au/visas/already-have-a-visa/check-visa-details-and-conditions/see-your-visa-conditions>

**Post study work visa (subclass 485):** <https://immi.homeaffairs.gov.au/visas/getting-avisa/visa-listing/temporary-graduate-485/poststudy-work#When>



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