

## B.Sc

2020-23

3 year Integrated Programs in

- Mathematics
- Physics

## B.Tech.

2020-24

Civil Engineering  
Computer Science & Engineering  
Data Science & Artificial Intelligence  
Electronics & Communication Engineering  
Mechatronics

**ATIT**  
**2020**

Admission Test for IcfaiTech

View Book

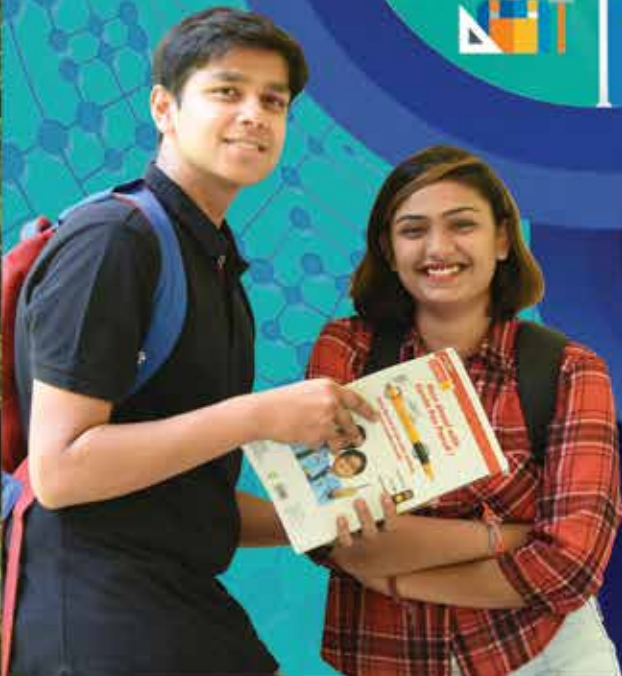
## M.Tech.

2020-22

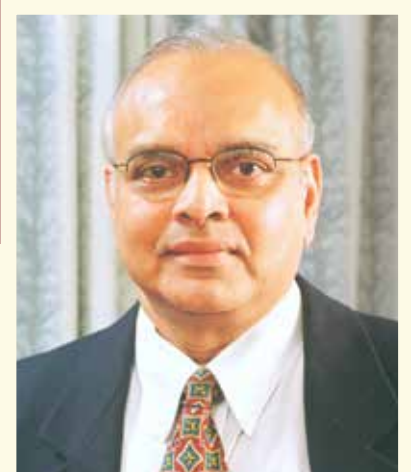
## Ph.D (Full-Time)

in

- Basic Sciences
- Engineering & Technology



# Founder's Profile



**N J Yasaswy**  
(1950-2011)

Mr. N. J. Yasaswy (1950-2011), founder of the ICFAI Group of educational institutions and a pioneer in promoting higher education in the private sector had a brilliant academic career: B.Com (Andhra University 1969 – First Rank), CA Inter (May 1971 – First Rank), CA Final (May 1973 – First Rank), ICWA Inter (July 1970 – First Rank) and ICWA Final (July 1972 – First Rank). He was the recipient of the Basu Foundation Award for the Best Student of the Year from both – The Institute of Cost and Works Accountants of India (in 1972) and The Institute of Chartered Accountants of India (in 1973).

During 1974-1980, Mr. Yasaswy was associated with the Administrative Staff College of India as a Faculty Member. In 1981, he started his consultancy firm, Yasaswy Management Association (P) Limited. Hyderabad.

Mr. Yasaswy was appointed by the Government of Andhra Pradesh as Chairman, Andhra Pradesh State Trading Corporation (1985–88), and Vice-Chairman, Public Enterprises Management Board (1986–88). He was a visiting faculty member at the Indian Institute of Management-Ahmedabad (1986-88) and was nominated as a Member on the SEBI Committee on Accounting Standards. He was a member of the Board of Directors of the Association of Certified International Investment Analysts (ACIIA), Switzerland. He authored several books on finance and investments.

Mr. Yasaswy set up the ICFAI as a single institute in 1985 without governmental sops or institutional funding, in an era where government support was the norm. He chose to spend all his energy on the fledgling institution which over the years grew to become a monument to what ambition can deliver. He was instrumental in building several business schools and universities in the developing states of India, particularly in the North-East region. He stood for professional management, excellence in the quality of education offered in the ICFAI institutions, and absolute discipline.

He was charismatic, a great teacher, an institution builder, a visionary and a genius who was years ahead of his time. His vision will continue to guide ICFAI forever.

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# The ICFAI Group

Pioneering professional education for over 30 years

ICFAI was established in 1984 as a not-for-profit society with the broad objective of empowering citizens through world class quality education. The Institute announced its arrival into the Indian education fora by launching a high end, innovative professional program in financial analysis in 1985. The Program was first-of-its-kind in India, aimed at equipping students and working professionals with cutting-edge knowledge in contemporary areas of finance. Since its establishment, ICFAI Group has made a significant mark in the Indian educational field with a pan-Indian network and presence.

Innovation has been the mainstay of ICFAI Group with innovation prevalent in its programs and even its culture. Subsequently, there was a big leap when ICFAI Group started its chain of business schools (IBS) across India in 1995 to offer management program. Since its inception, IBS has been consistently ranked among the top ranked B-Schools of India providing excellent academic delivery and infrastructure to its students and transforming them into leaders for the future.

Another example that is a testimony to the culture of innovation is the introduction of Case Study methodology at IBS. The Case Research Center at IBS has become a center of excellence and has won several accolades across the world.

ICFAI Group has 2 Strategic Institutional Units, the ICFAI Universities and the ICFAI Business Schools.

The ICFAI Universities are located at Hyderabad [The ICFAI Foundation for Higher Education (IFHE), which is a Deemed-to be University], Dehradun, Himachal Pradesh (Baddi), Jaipur, Jharkhand, Meghalaya, Mizoram, Nagaland, Raipur, Sikkim and Tripura.

In all the programs offered across these units, the emphasis is on adherence to academic rigor and differentiated curriculum that bridges the industry-academia gap.

ICFAI Group focuses on learning rather than instruction. In addition, the institute is engaged in important areas of research covering environmental sustainability, agricultural economics, health policy, financial economics, banking, intellectual property rights etc. There have been path-breaking research and good quality publications in these areas.

Flexible and tech enabled learning also plays an important role in ICFAI's teaching methodology. The delivery takes place with the use of hi-tech learning management system at campus programs and content delivery for distance learning through online medium.

ICFAI Group practices the value of academic integrity at all levels. As a policy, admissions are purely based on merit and there is nothing like capitation fee et al. The fee payable is published in the application material and that remains unchanged.

The ICFAI Group's culture of teaching and learning supports and fosters intellectual and personality development among its graduating students. They carry an attitude of ownership of their work. ICFAI Group strives to make the students - DOERS. The programs are designed such that the students & professionals graduating from the institution have the ability to take risks, make decisions and own the work. ICFAI Group system, strongly believes in developing an 'entrepreneurial mindset' among its graduating students.

At ICFAI, students inculcate research and analytical orientation due to its institutional strength and support for research and development activities. Holistically, the student undergoes a transformative change.

The alumni of ICFAI Group are working in renowned companies world-wide. Collectively, ICFAI Group alumni contribute significantly to the growth story of India.

## Awards won by The ICFAI Group



# The ICFAI Foundation for Higher Education



The ICFAI Foundation for Higher Education, Hyderabad is a Deemed-to-be University established in the year 2008 under section 3 of the UGC Act, 1956. The University is a member of the Association of Indian Universities (AIU) and Association of Commonwealth Universities (ACU). IFHE campus is a 92 acre lush green sylvan campus with built-up area of over 16 lakh sq. ft. The campus is fully Wi-Fi enabled and equipped with the state-of-the-art facilities like amphitheaters, auditoriums, academic blocks, fully equipped library block, computer center, language lab, hostels and canteen and faculty accommodation.



# Schools of Study

## Faculty of Science & Technology (IcfaiTech)

**B.Sc | B.Tech | M.Tech | Ph.D.**

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## Faculty of Management (ICFAI Business School)

**BBA | BA (Eco.) | MBA | Exe. MBA | Ph.D.**

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## Faculty of Law (ICFAI Law School)

**BBA-LLB (Hons.) | BA-LLB (Hons.) | LLM | Ph.D.**

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## Faculty of Architecture (ICFAI School of Architecture)

**B.Arch**

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## Recognitions and Accreditations

- Accredited by NAAC as 'A+' grade University with score of 3.43/4.00 and AICTE recognition for IcfaiTech.
- **QS Rankings 2019:**
  - India University Rankings - (71-75)
  - BRICS Rankings - (301-350)
  - Asian University Rankings - (451-500)
  - Ranked 1st among Top 10 Private Deemed Universities in India, Silicon India, 2017 award.
  - Ranked 1st among Top 10 Emerging Engineering Colleges in India - Silicon India, 2017.
  - Ranked 9th among Outstanding Engineering Colleges of Excellence - CSR-GHRDC, 2017.
  - The Indian Institution of Industrial Engineering (IIIE), Navi Mumbai, has conferred the Performance Excellence Award 2014 (Organization) on The ICFAI Foundation for Higher Education, for its outstanding contribution made towards excellence.
  - Great Place to Study Certification 2017-18 by GPTS Research Institute.

# Message from the Vice Chancellor, IFHE



Greetings!

It is with great pleasure that I welcome you to the ICFAI Foundation for Higher Education (IFHE) declared as a Deemed-to-be University established under section 3 of the UGC Act, 1956.

IFHE is a premier educational institution in Telangana State which is accredited by NAAC with 'A+' grade. It is dedicated to the cause of teaching and research of global standards. It offers B.Sc, B.Tech, B.Arch, M.Tech, BBA, BBA-LLB (Hons), BA-LLB (Hons), LLM, MBA and Ph.D. programs. The students are from all parts of India. In fact, there is a mini India on the campus. The University has student strength of about 6,100 and faculty strength of about 300. We envision developing a new cadre of professionals who will not only command high level of domain proficiency but also have the ability to integrate activities for developing scientific and technological solutions and work standards.

The quality of the programs offered at the University is ensured by the following five factors:

- Designing a relevant curriculum including soft skills and Internship Program.
- Student-centric academic delivery.
- Continuous evaluation and feedback.
- Focus on research by the faculty.
- Industry and foreign collaborations.

The University maintains a balance between academic, co-curricular, extra-curricular and social activities so as to enable the students to become well rounded persons with concern for the society.

**Dr. J. Mahender Reddy**





## Message from the Director, IcfaiTech



IcfaiTech (Faculty of Science & Technology) is a constituent of The ICFAI Foundation for Higher Education (IFHE). IcfaiTech aims at nurturing graduates and researchers who are critical thinkers, creative and have a holistic education experience. At the first degree and higher degree levels, students are given the flexibility to choose their own academic courses from a wide range of electives offered to them. Innovative methods of teaching, cutting-edge curriculum, workshops and internships further broaden the intellectual and global outlook of our students.

The Internship Programs are a unique feature of education at IcfaiTech and helps to produce more practical oriented and innovative graduates. Dedicated faculty members from our institute and executives from industry supervise the student performance and assess them during Internship Program. IcfaiTech offers courses like Principles of Economics, Principles of Management, Dynamics of Social Change and Introductory Psychology to develop a well-rounded personality to students admitted into all integrated first degree programs. This proactive approach has earned us respect from employers, educationists and professional institutions. I invite all the aspirants to seek admission into the IcfaiTech Programs and become technology-driven professionals.

**Dr. M. Srinivasa Reddy**



## Alumna Speaks



**Name** : Ms. Aishwarya Bharathi  
**Batch** : 2003-07  
**Current Organization** : Qualcomm Inc, USA

IcfaiTech curriculum was modelled after international universities, and we were exposed to the latest in our subjects. Students came from all over the country, and the camaraderie was excellent. Extra-curricular activities like sports and cultural and academic fests were also an integral part of our time there, which helped us develop a well-rounded personality and résumé. Our professors also encouraged us to participate in symposiums and paper presentations, which helped us keep in touch with the cutting-edge innovations of our respective fields.



# Salient Features of IcfaiTech

## Interdisciplinary & Contemporary Curriculum

IcfaiTech follows an integrated and broad-based curriculum emphasizing an interdisciplinary approach. At IcfaiTech choice-based credit system is in practice. Curriculum is updated periodically to meet the requirements of industry and academia.

## State-of-the-art Campus

IFHE boasts of a scenic campus with well-equipped laboratories, learning resource center, computing resource center, modern classrooms, hostels, sports and recreational facilities.

## All round Development

IcfaiTech provides to its students soft skills training, autonomous learning opportunities and projects to make them professionally competent. IcfaiTech facilitates extra-curricular and co-curricular activities through Student Clubs to make the students well rounded personalities.

## Internship Program

IcfaiTech offers a unique faculty supervised Internship Program for 7½ months. This Internship Program is integrated into the curriculum to enable students to work on real time projects offered by the Industry.



# Education Processes at IcfaiTech



- IcfaiTech follows semester system with continuous and Internal Evaluation. The educational programs are modular, flexible, and interdisciplinary in nature.
- IcfaiTech operates educational programs at three tiers of education, namely, the integrated first degree programs, higher degree programs and the doctoral programs.
- All three year and four years integrated first degree programs are designed with a broad based curriculum. Broad based structure ensures certain number of common courses to all the students who are pursuing different degree programs in engineering and science. The courses can be broadly grouped as Analysis Oriented Courses, Discipline Courses, Humanities and Social Sciences. This broad spectrum of courses enables the students to get a strong foundation in multi-disciplinary areas.
- The major advantage of this commonality among all students provides easy professional linkage, communication and group activity, thereby ensuring best possible peer group learning. This broad based curriculum is further welded in stronger professional bond when students work as interns during the internship program or as members in a team working on time bound research and development projects.
- This interdisciplinary nature of the courses offered is not just restricted to the first degree programs. This philosophy is also carried over to the higher degree programs and the doctoral programs as well.

# Academic Flexibilities

The admission policy and the educational process at IcfaiTech allow several academic flexibilities. Wherever flexibility is possible according to the Academic Regulations of the Institute, the implementation of the decision invariably takes place along with registration at the beginning of a semester for the continuing students. As in the admission process, the decision is guided by the principle of merit, preferences and facilities available. We list below the academic flexibilities that the students are entitled to in IcfaiTech.

## 1. Program Transfer (Within the same tier)

It is possible for a student to seek transfer from one program to another in the middle of a program without starting from the beginning. This is possible because he/she is given credit for what he/she has done till then towards the requirements of the program to which he/she seeks the transfer. For details please refer Student Handbook.

Since admission to a program is done on assigned and competitive basis, there cannot be any scope of undoing the fact of an assigned admission through transfer. Thus only exceptionally meritorious students in a limited number of cases can expect to compete for transfer to a more sought-after program. On the other hand, transfer to a less sought-after program for a student who is unable to cope with the rigours of the program in which he/she has been admitted would be readily used to rehabilitate him/her without much loss of time. In any event, transfer must be treated as an admission process.

## 2. Dual Degree Programs

IcfaiTech offers a host of dual degree possibilities for the students.

The dual degree program in Basic Sciences and Engineering is an innovative program being offered for the first time in India. The student is presented with a unique opportunity to earn an engineering degree by spending two extra years after the regular B.Sc term of three years. The student also has the choice of opting out of the dual degree program at the end of the second year and can exit after three years by earning a B.Sc degree. This dual degree

will also enable hitherto neglected basic sciences students to bounce back and will create a balance in the science and engineering education scenario in the country.

The other possibility that exists in IcfaiTech is that of a dual degree in engineering programs. That is, the student can earn two B.Tech degrees in 5 years. This is possible since the curriculum for the first two years of all the integrated first degree programs is same. The number of such seats are limited.

## 3. Individual Centric Timetable and Choice of Instructors

IcfaiTech has been a pioneer in introducing innovative academic practices in the country. One such innovative practice that has existed since IcfaiTech's inception in 2002 is that of individualised time table. In most of the academic institutions the time table for the students is fixed by the administration and the students have to follow it. In IcfaiTech the students can decide their own time table. This works in the following manner. Consider a course X which is a common course, i.e. it is a course that is taught to students of all the branches of engineering. Usually the first two years of all the integrated first degree programs at IcfaiTech consist of common courses. The student strength is broken up into several sections. Each section is handled by a different instructor. This is called the team of instructors for the common course X. This team of instructors is decided upon by the institution and declared at the time of registration. The student can then choose which instructor's classes, for the common course X, he/she wants to attend. Similarly instructors are declared for other common courses and the student can choose. This process creates a unique individualistic time table for the student.

## 4. Choice Based Credit System

IcfaiTech was one of the earliest engineering institutions to adopt and implement the choice based credit system in the country. The students are given the choice of choosing what courses they would like to study. The courses are offered in the form of electives. The students can choose electives which are interdisciplinary and need not be the electives of their own program. For example a student of Computer Science can choose an elective that is offered in Electrical and Communications

Engineering or for that matter Data Science or Mechatronics. This choice of electives is possible as long as the student satisfies the appropriate prerequisite conditions if any, for that course.

## 5. Audit Courses

There are certain courses amongst the offering of the University which are neither part of programs nor are available through electives. Any student who wish to pursue such courses can do so on audit basis on payment of additional fee. The facility of pursuing a course on audit is principally conceived to give an opportunity to a student to update his/her knowledge.

## 6. Optional Electives

Apart from the prescribed number of electives as a part of the curriculum, IcfaiTech also allows students to register for up to four additional electives. These electives chosen can be such that they enable the students to gain additional knowledge in a specialized subject over and above the electives that they have chosen. These optional Electives are not a part of courses required for graduation.

## 7. Departure From Normal Pace

The academic structure followed at IcfaiTech enables a student to deviate from the normal pace of the program into which they have been admitted. That is the tenure of the student at the Institute may be reduced or increased depending on the academic performance of the student. For further details and exact mechanism of this process, please refer the Student Handbook.

## 8. Other Flexibilities

The structure of degree programs and the academic regulations, provided in the Student Handbook, also specify certain other flexibilities like repetition of courses, withdrawal from or substitution of course(s), etc.





## Alumnus Speaks



**Name** : Mr. Puranam Karthik Sai Radhakrishna  
**Batch** : 2015-2019  
**Current Organization** : Nvest, Bangalore

The time at IcfaiTech was one of the most useful times of my career to date. The diversified environment nurtured me and catalysed all-round development as an individual. Besides the academics being like a wave with crests and troughs, the motivation, dedication and learning spirit of few professors fostered my self-learning capabilities. The exposure gained from short-term Internships, projects and long term internships which are a part of the curriculum helped a lot to enhance the skill set apart from theoretical concepts and be industry-ready. I am thankful to my peers, professors and management at IcfaiTech for being a part of my B.Tech (CSE) journey.

# Internship Programs

Internships are unique to first degree and higher degree programs offered at IcfaiTech. They help students gain real work experience and prepare them to face the challenges in professional life. The Internship Programs ensure that linkages are developed and sustained with industrial and other organizations outside the world of academia. They are incorporated within the curriculum to bring the realities of the world of work into the educational process. The Internship Programs provide the students with an opportunity to apply their classroom knowledge to real life situations. Internship Programs are an integral part of the degree programs; supervised, evaluated and graded by the faculty members in consultation with the industry mentors.

**Internship Program-I (IP-I)** of two months duration and is compulsory for all the students of the first degree programs. This is offered in the summer term following the second semester.

**Internship Program-II (IP-II)** of five and a half months duration, implemented in either the VII or VIII Semester of B.Tech Program.

B.Tech students have the flexibility of opting for thesis stream instead of Internship Programs. Students opting for Thesis stream will go for thesis work in either the VII or VIII Semester of B.Tech Program, under the supervision of the IcfaiTech Faculty.

Internship Program for Higher degree programs: Internship in the second semester of the second year of the program.







### **Benefits to the Students**

- Opportunity to work on real-life problems in actual working conditions
- Development of useful work-related skills
- Enhanced placement opportunities
- Create professional networking
- Opportunity to earn while learning

### **Benefits to the Faculty**

- Meaningful case studies and research problems.
- First hand exposure to industry problems.
- Enables him/her to make the teaching content richer.
- Enables him/her to identify research areas that are industry relevant.

### **Benefits to the Industry**

- They get an opportunity to observe the personality traits before they are hired.
- The interns need not be paid as much as a regular employee.
- Routine issues faced by the industry can be handled by interns.
- Can utilize our faculty expertise.

### **Benefits to the Institute**

- Faculty enrichment.
- Industry-Academia connect increases.
- Professionalizes the placement activity of the institute
- Get access to industrial problems.

# Placements

IcfaiTech is committed to helping graduating students to get best career opportunities through campus placements. A dedicated team of placement officers work round the year in organizing campus placement drives. Utmost importance is given to enhancing the competence of the students and preparing them for placement. Regular training programs for soft skills, technical skills and expert talks are organized to improve the employability of students. Industry-Placement meets and personality development workshops are organized. All the students are provided necessary guidance so that they become empowered to take informed decisions regarding careers.



## Alumnus Speaks

**Name** : **Mr. Dharmesh Singh**  
**Batch** : **2004-08**  
**Current Organization** : **Entrepreneur, Ahex Technologies, Hyderabad**



IcfaiTech has given a great opportunity not just in studies but overall self development in a friendly and amazing multicultural environment. The 4 years spent here were splendid and has helped me to grow better professionally and personally. I could get opportunities to work with multinationals in IT like Tech Mahindra, CSC and Yash Technologies. Now I am able to carry on my Entrepreneurial journey ahead in my Travel Business and helping a start Up - N Cold Pressed in their Business Development.

## Reputed Companies where IcfaiTech students are employed (A partial list)



- Accenture
- Access Meditech
- ADP
- Ahex Technologies
- Aiswarya Telecom
- Amazon
- Annapurna Electronics
- Aptroid Technologies
- Ariston Tek
- ASP OL Media
- ATMECS Technologies
- Belcosys
- BrailTech
- Broadridge
- Byju's
- Capgemini
- Cirus Solar
- CISCO
- Client Curve
- Cognizant
- CPK Engineers
- CtrlS
- Darkhorse
- Data64
- Decthalon
- DeDietrich
- DELL
- Divami software
- Eamani Tech.
- Edutech
- Efftronix
- Eidiko
- EPAM
- Factset
- Fission Labs
- Fortune Global
- Frugal Testing
- FutureTech
- Gboxz
- Genpact
- Global Logic
- Global Step
- GMMCO
- GT Konnect
- HCL
- Hettich
- Hitachi Consulting
- HSBC
- Huawei
- Hyundai
- IBM
- ICICI
- IGate
- IKYA
- Infdart Global
- infor
- Jindal Steels
- KB Power
- LeoForce
- Mahindra
- Man vision consulting
- MAQ software
- Mindfire Solutions
- Mindtree
- Ministry of Education, United Arab Emirates
- Moglix
- Moldtek
- MTX group inc
- My Home Constructions
- Nalsoft Technologies
- NES
- Nextsphere
- Nilestream Info
- Ninja Cart
- Nowfloats
- NTT Data
- Nvest Global
- Paymatrix
- Pennar Industries
- Polaris
- Polmon
- Qexon Infotech
- Quality Photonics
- Ramky Infra
- Rexnord
- Riktam Tech.
- Rupeek Fintech
- Sanya Tech
- Sapient
- SAS I Group
- Schneider
- Signode India
- SONATA Software
- STUP Consulting
- Sulakshana Circuits
- Sunera Tech
- T-Bits Global
- TCS
- TechMahindra
- Technobrain
- Technovert
- Toshiba
- Tvisha
- UltraTech
- Value Labs
- Vega Conveyor
- Vitusa
- VRL Automation
- Wipro
- Y Technology
- Zenoti
- ZenQ Tech.

### IcfaiTech Placement Committee

Dr. Sayaji Hande	Adjunct Professor of Computer Science and Engineering
Dr. A Tharakeswar	Professor of Mechatronics
Mr. P. Lakshmi Narayana	Admissions, Training & Placements Officer
Ms. C. Saritha	Manager, Placements
Mr. N. P. Srikanth	Manager, Placements

### Student Co-ordinators

B. Ravindra Reddy	IV Yr	B.Tech (CSE)
N Phaneesh Kumar	IV Yr	B.Tech (CSE)
M. Sree Teja	IV Yr	B.Tech (CSE)
J. Pardhavi	IV Yr	B.Tech (CSE)
Mohd. Saif Ali	IV Yr	B.Tech (CSE)
T.V.S.Ram Kashyap	IV Yr	B.Tech (ECE)
D. Veda Praneeth	IV Yr	B.Tech (ECE)
Swachyatoya Dey	IV Yr	B.Tech (ME)
D. John Vijay Ashish	IV Yr	B.Tech (ME)
A Shivani	IV Yr	B.Tech (ME)
V Tharun	IV Yr	B.Tech (ME)



## Alumnus Speaks

**Name** : Mr. Abhinav Preetu  
**Batch** : 2013-17  
**Current Organization** : NowFloats, Hyderabad  
**Position** : Software Developer

The journey at IcfaiTech has been a memorable one. We had a wonderful faculty, great peers and an enthusiastic environment to grow. The exposure here is great. It's due to IcfaiTech, that I got my Campus Placement.

# Life on Campus

IcfaiTech helps students to develop their overall personality and become leaders. Despite a hectic academic schedule, students of IcfaiTech, very actively participate in co-curricular and extra-curricular activities. Highly self-motivated and capable students manage several student bodies – thirteen Clubs and Committees. All technical, management, sports, socio-cultural events are organized by these bodies throughout the year. Students also organize and participate in the activities mentored by professional bodies like ISTE, IEEE, IETE, ACM, CSI and SAE.

At the campus, there is a designated Student Activities Coordinator, and over twenty faculty members serving as mentors who actively work with students in organizing a variety of programs throughout the year.

Students also participate in inter-university competitions.

## IcfaiTech Student Clubs

- **Astitva** - Music Club
- **Yantrikee** - Technical Club
- **Dansation** - Dance Club
- **Let's Talk** - Oratory Club
- **Innozant** - Entrepreneur's Club
- **Paritantra** - Environmental Club
- **Gambol** - Sports Club
- **Invictus** - Literature Club
- **Zephyr** - Event Management & NGO activity
- **Teatro** - Theater & Drama Club
- **ABC** - alpha beta coders - Coders Club
- **I2** - The IcfaiTech Innovation Club
- **Photography Club**



# Academic Infrastructure at IcfaiTech

## Learning Resource Center (LRC)

IcfaiTech has a well stocked library containing reference materials, magazines, journals and books of national and international publications. IcfaiTech has a digital library consisting of various databases, namely, J-Gate, EBSCO, Springer, IEEE etc., MPTEL & SWAYAM. These databases facilitate research activities of students and faculty members.

## Learning Management System (LMS)

The academic delivery and everyday management of student data including marks, attendance, and dissemination of information is managed through LMS. The LMS is also used for conducting online quizzes, sharing resources like lecture materials, solutions to exams and quizzes and also for displaying grades. This tool is being used by few of the top Universities in the world such as University of California, University of Georgia, Texas A&M University, MIT and others.

## Laboratories

IcfaiTech has well equipped specialized laboratories, designed to provide innovative practical skills to the students.

## Computing Resource Centre (CRC)

IcfaiTech is equipped with the latest state-of-the-art technology of computer network with high speed backbone (180 MBPS Internet speed) and security through CISCO high end routers. The campus has exclusive subscription of Microsoft products like Windows 10, Office 2013, Microsoft exchange, SQL server, Adobe products (InDesign, PageMaker, Acrobat, Photoshop), Anti-virus (e-scan) which are being used in day-to-day operations. Teaching labs are licensed with SAP, SPSS, SAS, iThink, Rational Rose, E-views, Microsoft CRM, AutoCAD, Cadian, Creo, Ansys, Siemens NXCam, Automation studio, MatLab, Keil, VM Ware etc.

## Air-conditioned Class Rooms

All class rooms are air-conditioned and equipped with modern visual aids.

## Class Rooms with HD Projectors

All classrooms are equipped with HD projectors.

## Wi-fi Enabled Campus

The whole campus is Wifi enabled. This ensures that a student can connect to the internet anywhere on campus including the hostels.

## Health Centre

The University has a clinic in the campus with doctors and paramedical support staff. In case of medical emergencies the students are taken to the nearest leading corporate hospitals in University ambulances.

## Sports Facilities

University has sports facilities for playing badminton, squash, table tennis, football, basketball, cricket, tennis and swimming.

## Canteen

Canteen facility is available within the campus. There are two canteens (Mess 1 & Mess 2) on campus, which cater to the need of the faculty, students and employees. Day scholars can also have food on payment basis in these canteens.

## Hostels

Separate hostel facility is available for boys and girls on sharing basis. Preference will be given to outstation candidates since this facility is limited.

## Transport

Transport facility for day scholars is available on payment basis. There are University buses available from every corner of the city to campus. For the exact details of the bus routes and the amount payable, students may contact the transport department of the University.





## Alumna Speaks

**Name** : Ms. Shafaque Ahmreen  
**Batch** : 2015-2019  
**Current Organization** : Ministry of Education, UAE.

Time flies like an arrow. The days I spent in IcfaiTech were exactly like this proverb. Those four years were like four days which completed very fast. Many memories have been created. Life at IcfaiTech was the best journey ever. Environs of IcfaiTech were very nice just like a home and well disciplined. IcfaiTech provided us with the analytical skills and knowledge that we need. Every course was very organized and systematic. The knowledge I acquired in the B.Tech program helped me to crack the UAE govt job in first attempt. I believe my study at IcfaiTech encouraged me to develop a critical and inquiring attitude, an appreciation of interdisciplinary nature of subject areas and acceptance of people of different backgrounds. Apart from these, one thing which I learnt during College is "life is unpredictable". It might be good or bad, weird or out of interest but during all bad time, faculties were like backbone for me and I could not resist myself in mentioning @Ayeshwarya Raj- her name while writing my experience about IcfaiTech because she was the reason of all my smiles and pillar during my bad times.

I cherish every moment spent at IcfaiTech. At last I cannot bind myself into words for writing my experience at college because it is so amazing. Although I am an engineer by profession, I am a writer and poet by heart so writing my experience in 4 lines in Urdu.

*lafz me bayan nah kar payenge, kya maine in chaar saalo me paya..  
 haa par us taleem aur tajurbe ke sahare hi uper vale ne kamyabi ki sidi pe chadaya..  
 waqt ke panno ko palat kar phir se vo haseen zindagi jeena chahenge,  
 rah gya jo bhi kuchh adhura, kya kabhi use mukammal kar payenge....*

(meaning in English: I cannot express in words what I achieved in these 4 years, but what I can tell is that whatever success I got is because of almighty n the experiences. If I get the chance again, I want to go back to my college life and whatever things are left I will try to complete them)

# Integrated First Degree Programs

## Three-year Programs

- B.Sc. Mathematics
- B.Sc. Physics

## Four-year Programs

- B.Tech in Civil Engineering (CE)
- B.Tech in Computer Science & Engineering (CSE)
- B.Tech in Data Science & Artificial Intelligence (DS & AI)
- B.Tech in Electronics & Communication Engineering (ECE)
- B.Tech in Mechatronics

During the first two years of the integrated first degree programs at IcfaiTech the student is exposed to the areas of Basic Sciences, Social Sciences, Humanities, Computer Programming, Engineering Sciences and proficiency in the English language along with a strong foundation in Mathematics. These courses equip the students with technical and analytical skills required for higher level courses, negotiation and communication skills vital for professional life, and helps in shaping his/her overall personality.

Internship I, offered after the IV semester, for a period of two months, develops the cognitive skills of the student and familiarizes the student of the organizational structure of the companies in real world.

In the third year of the program, discipline courses are offered. A good blend of contemporary and traditional courses has been included keeping in mind the academic needs and the employability of students.

In the final semester of the program, the student can opt for a variety of elective courses not only from the stream which he/she belongs to but also from the other engineering branches. This enhances the student's prospects for higher education and also improves their employability prospects.





## Dual Degree Programs:

Every B.Sc student will be given the option of pursuing a B.Tech program. The B.Sc students have to give preferences for the five engineering branches he/she wishes to pursue at the end of the first year. The institute will allot the student the relevant B.Tech branch, at the end of first year, purely based on merit (CGPA). Once, a student has been admitted into the dual degree program, the fee applicable for the B.Tech program will be charged from the time of allotment. Note that the student also has the choice of not opting for the dual degree program and graduate with just a B.Sc degree. In this case the program fees charged will be as per the B.Sc program. The total duration of the B.Sc and B.Tech dual degree programs will be five years. There are ten possibilities to obtain a B.Sc and B.Tech degrees. The different dual degree possibilities are listed below.

- **B.Sc (Mathematics) & B.Tech (CE)**
- **B.Sc (Mathematics) & B.Tech (CSE)**
- **B.Sc (Mathematics) & B.Tech (DS&AI)**
- **B.Sc (Mathematics) & B.Tech (ECE)**
- **B.Sc (Mathematics) & B.Tech (Mechatronics)**
- **B.Sc (Physics) & B.Tech (CE)**
- **B.Sc (Physics) & B.Tech (CSE)**
- **B.Sc (Physics) & B.Tech (DS&AI)**
- **B.Sc (Physics) & B.Tech (ECE)**
- **B.Sc (Physics) & B.Tech (Mechatronics)**

IcfaiTech also has a provision of few seats, whereby a student can graduate with a dual degree in engineering. A student can seek admission into another B.Tech program other than the one for which he/she has been offered admission. This option is limited for only outstanding students, i.e. with CGPA greater than or equal to 9.5. In such a case the total amount of time required is 5 years.

Furthermore, IcfaiTech also has a provision whereby a student who is pursuing a B.Tech program may also enrol for a B.Sc program and can graduate with both a B.Tech and a B.Sc degree. Once again the no. of seats are limited and only exceptionally bright students will be allowed to enrol for this dual degree.

## Higher Degree Programs:

IcfaiTech offers full-time M.Tech degree programs of four semesters duration in the following areas:

- **M.Tech in Data Analytics**
- **M.Tech in Internet of Things**
- **M.Tech in Machine Learning**
- **M.Tech in Product Design**
- **M.Tech in Robotics**

The programs have been designed to enable the students to be technically competent to take-up challenging jobs in industries, government and R&D organizations. The programs also provide a sound platform for students wanting to pursue doctoral research.



## Alumnus Speaks

**Name** : **Mr. Ranjan Mishra**  
**Batch** : **2015-2019**  
**Current Organization** : **University of Toronto**

IcfaiTech is one of those institutes that strives to equip its students with the know how to take a step forward towards achieving their goals. Having completed my B.Tech in Mechanical Engineering in 2019, I now see a bright future ahead of me. Through the guidance of my peers and faculties, I have now stepped onto a greater stage of my career to scale new heights. Pursuing my Masters in Engineering at the University of Toronto, Canada in the field of Mechanical and Industrial Engineering I now understand the significance of the fundamentals imparted by my alma mater.



# Doctoral Degree Program

IcfaiTech offers Doctoral Program in the areas of Basic Sciences, Engineering and Technology. The Ph.D program is rigorous, multidisciplinary and broad in scope. Students are provided research training, encouraged to attend conferences and publish their research work leading to a highly skilled and independent researcher. The program has four phases, namely Course work, Qualifying Examination, Preparation defense of Research Proposal and Thesis work & Submission.

## Financial Assistantship

Candidates admitted into the Ph.D program are given generous financial support. The support is in the form of Research Assistantship (RA)/Teaching Assistantship (TA). The maximum financial support in the form of TA/RA is Rs. 40,000/- per month. There is also a possibility that the candidate may be offered half assistantship. Candidates who are offered full/half assistantship have to put in 20 hrs/10hrs of workload per week for the institute respectively. Continuation of the assistantship is subject to review every semester.

## Fees Waiver

Deserving candidates may be given fee waiver. This will be decided by the admissions committee at the time of interview.



## Research Areas

IcfaiTech faculty are involved in cutting edge research in the following areas:

### Civil Engineering

- Structural Engineering
- Green Building Technologies

### Computer Science Engineering

- Software Engineering
- Computer Networks
- Cloud Computing
- Artificial Intelligence
- Big Data Analytics
- Neural Networks

### Electronics & Communication Engineering

- Wireless Network
- Image Processing
- VLSI

### Mechanical Engineering

- Machine Design
- Additive Manufacturing
- Refrigeration
- Robotics
- Friction Stir Welding

### Chemistry

- Analytical Chemistry
- Coordination Chemistry
- Environmental Chemistry

### Mathematics

- Operations Research
- Boolean Algebra
- Fluid Dynamics
- Fixed Point Theory

### Physics

- Mathematical Physics,
- Condensed Matter Physics
- Non-linear Optics
- Statistical & Computational Physics



## Admission Modalities





# Admission Modalities for Integrated First Degree Programs

IcfaiTech motto is Meritum Ethicus. In keeping with this philosophy admissions are made purely on merit, on an all India basis, for all the programs offered at IcfaiTech. The merit position of the candidates will be based on the percentile score obtained by them in ATIT, conducted by IcfaiTech, Hyderabad. English is the medium of instruction for all the programs in the Institute. The final selection of a candidate is based entirely on candidate's merit, his/her preferences, disciplines available and availability of seats. The admission process followed by IcfaiTech is explained in detail as below:

## 1. Eligibility for Admission into Integrated First Degree Programs

- For B.Sc. Pass with 50% aggregate marks or equivalent CGPA in Class XII with Mathematics, Physics, Chemistry and English as subjects.
- For B.Tech Pass with 60% aggregate marks or equivalent CGPA in Class XII with Mathematics, Physics, Chemistry and English as subjects.
- Class XII (or its equivalent) students awaiting their final examinations results may also apply.

**2. Application for ATIT:** All candidates interested in appearing for ATIT 2020, for seeking admission in the first degree programs of IcfaiTech will be required to submit application form on or before 20 April, 2020.

**3. ATIT Examination** is an aptitude test conducted online in Computer Based Test format. The test is conducted from **25 April to 10 May, 2020**. The test is of 3 hours duration and is conducted in 2 sessions per day at about 50 cities all over India.

The test constitutes objective type questions in Mathematics, Physics, Chemistry, English and Logical reasoning in multiple choice format. The question paper pattern is given below and syllabus is given in website [www.ifheindia.org/icfaiotech](http://www.ifheindia.org/icfaiotech).

Subject	Number of questions
Mathematics	50
Physics	40
Chemistry	30
English	30
Logical Reasoning	30
<b>Total</b>	<b>180</b>

**4. Preparation of Merit List for Admission:** The merit position of all candidates who have appeared in ATIT will be prepared on the basis of their total percentile scores obtained in ATIT. It is possible that the final ATIT scores of two candidates may be the same. Then the following criterion will be used to resolve the merit position of the two candidates:

- a. First their scores obtained in Mathematics and Physics in ATIT will be considered.
- b. If the tie still exists then their score in English and Logical reasoning in ATIT will be considered.
- c. If the tie still exists, then their total PCM marks in 12th examination will be considered for their separation.

**5. Availability of Seats:** The total number of admissions made may vary from year to year. The change in the total number of seats takes place primarily to adjust to the requirements of a highly flexible system which accommodates dual degree, transfer, etc. Based on earlier experience and on a statistical projection of the responses received in the application form, IcfaiTech might make admission offers to a larger number of candidates than the number of seats earmarked.

**6. The Process of Allotment of Seats:** Once the merit list has been prepared, computer software is programmed to allot the seats starting from the first candidate on the merit list and going down the same until all seats are filled up. At any time when the computer considers a candidate, it first tries to accommodate the first preference of the candidate and goes to his/her second preference if his/her first preference could not be accommodated and so on. Computerized seat allotment will be done and immediate admission offers are made.

Based on our past experience, a certain number of candidates would be placed on waiting list. Whenever vacancies arise, the procedure of allotment would be exactly the same as described above. During each iteration a *de novo* allotment starting from the first candidate in the merit list will be made. Of course, in this allotment, candidates who have declined the offer and/or who have not paid fees by 15 June 2020 would be removed from the merit list. It is now clear that in this process not only some of the candidates who are on the waiting list will get an allotment but also certain students who have already got an allotment may now get a new allotment to one of their higher preference if seats are now available.

**7. The Sliding Operation:** Whenever a candidate is given admission in to a lower preferred program, he/she is kept on the waiting list for his/her higher preferred programs until all admissions for First Semester of the academic year are completed. Any vacancy in any program caused by non-acceptance of the admission offer will be filled by offering the vacant seat to the next candidate in the order of merit. This process is called 'Sliding-Up'. According to the Institute rules, his/her acceptance of the admission offer implies that he/she will be automatically considered for sliding up to higher preferred program as indicated in his/her application form.

**8. Waiting List Candidates:** The waiting list policy of IcfaiTech has the following characteristics namely:

- a. The cut-off point for the waiting list is arrived at by our past experience in terms of the responses from the candidates, the number and the quality of candidates who have applied in the current year with a view to complete the admissions and start the classes on time.
- b. Those who are offered admission in to a program in the first instance (original admission) will continue to be on the waiting list for their higher preferences.
- c. The Institute does not assign any waiting list number.
- d. A candidate who has a higher ATIT score may be on the waiting list while a candidate who has a lower ATIT score may have got admission because the former crossed out a program which the latter had opted for and seats were available in that particular program. Therefore it is expected that the candidates will indicate preferences for all the programs in the application form.
- e. Any candidate who crosses out (does not choose) a program not only ceases to be candidate for admission to the program but also for consideration on the waiting list of that particular program. For example a candidate could cross out the preference for CSE admission. In such a case the candidate will not be considered for original admission in CSE, he/she will also not be on the waiting list for admission in the CSE program.
- f. Candidates shortlisted for the waiting list must pay their fee (by 15 June, 2020) along with the candidates who have been offered confirmed admission, in order to remain in contention for confirmed admission.

Some tips on marking preferences and crossing out: The candidates are strongly advised to exercise their preferences after careful consideration. If a candidate wishes to join IcfaiTech irrespective of the program so that he can slide up until the admission process is complete or he/she can avail of certain unusual flexibilities like dual degree, etc. it would not be in his/her interest to cross out any program. The other extreme is where a candidate is absolutely sure of sliding up and such candidates would be advised to show preferences to those limited programs only and cross out the rest.



# Instructions to Candidates Appearing for ATIT 2020

**I. How to Apply:** Applicants interested in appearing for ATIT 2020, for seeking admission in the first degree programs of IcfaiTech will be required to submit application form on or before **20 April 2020**. Students can apply by any one of the following methods:

- Online Application:** Applicants can apply online by filling up the application form available at [www.ifheindia.org/icfaiTech](http://www.ifheindia.org/icfaiTech) and making payment of ₹ 500 towards the cost of examination using Credit / Debit Card (Visa / Master Card) or Internet Banking through secure internet payment gateway. Applicants applying online should upload their passport size color photograph. On the receipt of online application form along with fee, IcfaiTech prospectus will be sent to such applicants by the institute.
- Download of Application Form:** Applicants can fill their details online and download the application form from [www.ifheindia.org/icfaiTech](http://www.ifheindia.org/icfaiTech) and send it to the Admissions Office along with the Demand Draft of ₹ 500 towards the cost of the application form. The Demand Draft (DD) should be drawn in favour of “**IFHE – Prospectus Fee A/C ATIT 2020**” payable at Hyderabad. On the receipt of application form along with fee, IcfaiTech Prospectus will be sent to such applicants by the institute.
- Fill the Application Form:** Applicants can fill in the application form given along with the prospectus. Candidates may fill the details and send it to the Admissions Office.

**Address for Correspondence:** The completed application form in case of physical application & downloaded filled-in application with DD should be send to the Admissions Office, through speed post or Courier to:

**Admissions Office (B.Tech / B.Sc Programs)**

Plot # 65, Nagarjuna Hills, Punjagutta, Hyderabad – 500 082, Telangana State.  
Ph:040-23440967, Toll Free : 1800-599-0767; E-mail: [atit@ifheindia.org](mailto:atit@ifheindia.org)

**E-Mail:** It is mandatory for all the applicants to indicate their e-mail ID, as all important information relating to ATIT 2020 will be intimated to the applicants by e-mail. Similarly, all applicants are required to send their letters/correspondence, by e-mail only, to [btechadmissions@ifheindia.org](mailto:btechadmissions@ifheindia.org) clearly indicating their names and application number.

**2. Program Preferences:** While filling the application form applicants are strongly advised to provide all the seven preferences as per their priority. Any application form not having even a single preference will be rejected. Use the code numbers for various branches given below.

B.Tech: Branch of Engineering	Code
Civil Engineering	01
Computer Science & Engineering	02
Data Science & Artificial Intelligence	03
Electronics & Communications Engineering	04
Mechatronics Engineering	05
B.Sc	
Code	
Mathematics	06
Physics	07

**3. Online Computer Based Test: Test Centers & Codes: ATIT 2020** online computer based test will be conducted at test centers all over India. The applicants can choose any one of the test centers available for ATIT 2020 and indicate the same in the application form. Please note that the requests for change of test center will not be entertained. ATIT Office reserves the right to add or delete test centers depending upon the situation. The same will be intimated on the website [www.ifheindia.org/icfaiTech](http://www.ifheindia.org/icfaiTech) for the benefit of applicants. All applicants are advised to adhere to the last date (20 April 2020) prescribed for submission of the application form. Please submit the application form as early as possible to improve chances of getting the test center of your choice. The list of the test centers is given below.



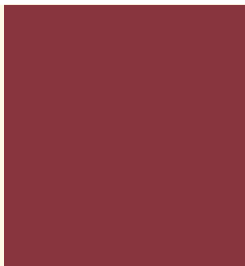
## Online Computer Based Test Centers & Codes

State	Test Center City	Code
Andhra Pradesh	Ananthapur	101
	Guntur	102
	Kadapa	103
	Kurnool	104
	Nellore	105
	Ongole	106
	Rajahmundry	107
	Tirupathi	108
	Vijayawada	109
	Visakhapatnam	110
Bihar	Muzaffarpur	111
	Patna	112
Chhattisgarh	Raipur	113
Gujarat	Ahmedabad	114
Jharkhand	Jamshedpur	115
	Ranchi	116
Karnataka	Bengaluru	117
Kerala	Trivandrum	118
Madhya Pradesh	Bhopal	119
	Indore	120
NCR	Delhi	121
	Ghaziabad	122
Odisha	Bhubaneswar	123
Rajasthan	Jaipur	124
	Kota	125
Tamil Nadu	Chennai	126

State	Test Center City	Code
Telangana	Hyderabad 1	127
	Hyderabad 2	128
	Hyderabad 3	129
	Hyderabad 4	130
	Khammam	131
	Mahabubnagar	132
	Nalgonda	133
	Nizamabad	134
	Warangal	135
	Karimnagar	136
	Union Territory	Chandigarh
Uttarakhand	Dehradun	138
Uttar Pradesh	Agra	139
	Allahabad	140
	Kanpur	141
	Lucknow	142
	Varanasi	143
West Bengal	Kolkata	144

**\*Note:**

1. The availability of online test centers are subject to confirmation. For latest update on test centers please visit [www.ifheindia.org/icfai.tech](http://www.ifheindia.org/icfai.tech).
2. For a test center to conduct **ATIT 2020**, minimum 10 students are required to be registered for that particular test center. In case less than 10 students register for any test center, they will be accommodated in the nearest test center.





**4. Slot Booking for taking ATIT 2020:** Please visit the website [www.ifheindia.org/icfaiTech](http://www.ifheindia.org/icfaiTech) and under online slot booking use “Book Slot for ATIT 2020”.

Enter the ATIT 2020 Application Number as Login ID and date of birth as Password in the box provided. The candidates are advised to change their password (min 8 digits) soon after logging in, for security reasons.

Click submit, the slot Booking Screen will be open to permit the booking of slot for the test.

Step-I : Select city using the drop down menu provided. Then select the test center from the drop down menu provided below city drop down.

Step-II : Select the date and time of the Test from the given options.

Step-III : Submit and wait till process is completed. Please note that an applicant is not permitted to change the slot after booking

Step-IV : Hall Ticket (Admit Card) will be mailed to the registered e-mail ID. Print the Hall Ticket (Admit Card) through your e-mail for your use.

**5. Test Process:** Candidates have to take the ATIT 2020 on a computer at the test center selected during the scheduling of the ATIT 2020 test. Computer experience or typing skills are not required to take the test. ATIT 2020 will begin with a short tutorial on the test and its features.

Please note that the candidates must arrive 45 minutes before the scheduled slot. This allows time for student to sign-in and for staff to verify the identification and documentation.

Candidates need to bring the following to the test center:

1. **Admit Card:** Candidates must bring the Admit Card to the test center. Candidates will not be allowed to appear the test without it.
2. **Required Identification:** Candidates must present an original, valid (non-expired) form of photo identification before appearing for the test. The name on the photo identification must match with the name as entered in the ATIT 2020 Application Form.

**Acceptable forms of Photo identification are limited to:** Passport, Aadhar Card; College ID or a notarized Affidavit with photo, signature, date of birth and residential address. Photocopies of the original are not acceptable.

**Note:** Candidates are not allowed to appear for ATIT 2020 without submitting appropriate photo identification.

## 6. Admission Dateline ATIT 2020

- i. Interested candidates must send the application form on or before 20 April, 2020.
- ii. Last date for booking ATIT slot on any day on or between 25 April, 2020 and 10 May, 2020 is 20 April, 2020.
- iii. Candidate appears for the ATIT 2020 examination in his/her assigned slot.
- iv. Declaration of the result, based on percentile obtained in of ATIT 2020, is done on 15 May, 2020.
- v. Provisional offer of admission letters sent to the qualified candidates, based on percentiles and preferences, on 15 May, 2020.
- vi. The institute releases waiting list candidates on 15 May, 2020.
- vii. All the candidates who are offered confirmed admissions, including those candidates who are on the waiting list, have to pay the admission fee of ₹ 20,000 on or before 15 June, 2020, 5 pm.
- viii. Confirmed and Waiting list candidates, who do not pay the admission fee by 15 June, 2020 will forfeit the right of admission into IcfaiTech programs. Accordingly the names will be deleted from the admission pool.
- ix. Vacancies caused by the candidates with confirmed admission, owing to non-payment of fee by 15 June, 2020, will not be eligible for the sliding process conducted by IcfaiTech, explained earlier.
- x. IcfaiTech has two more sliding processes on 16 July, 2020 and 2 August, 2020.

All the important dates mentioned above are summarised in a tabular form below:

Admission Calendar 2020	
Last date for receipt of completed application form	20 April, 2020
Last date for slot booking for ATIT 2020	20 April, 2020
Online Computer Based Test	25 April to 10 May, 2020
Intimation to admitted and waiting list candidates	15 May, 2020
Sliding 1	16 June, 2020
Reporting for Admission in IcfaiTech	15 July, 2020
Sliding 2	16 July, 2020
Sliding 3	2 August, 2020

Deadline for Fee Payment			
Payment due date	Amount (₹)		Narration
	B.Tech	B.Sc	
15 June, 2020	20,000	20,000	Admission Fee <b>(One Time)</b>
15 July, 2020	10,000	10,000	Caution Deposit <b>(Refundable)</b>
15 July, 2020	1,25,000	50,000	Program Fee

## 7. Fee Structure

Students have to pay the program fee at the beginning of each semester, as per the due dates which will be indicated in the Student Handbook.

Program	Program Fee (₹) (Per Semester)	Total Program Fee (₹) (Excluding Admission Fee and Caution Deposit)
*B.Sc (3 Years)	50,000	3,00,000
B.Tech (4 Years)	1,25,000	10,00,000

\*Students opting for the Dual Degree Program are required to pay the fee for the B.Sc Program for the first year. From second year onwards, they are required to pay the B.Tech program fee, as given in the table above.

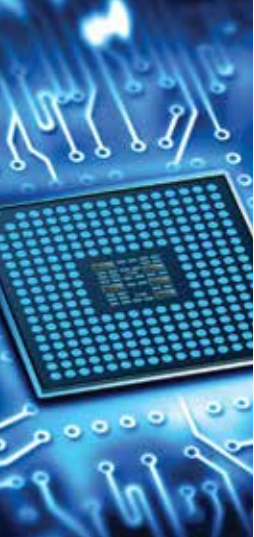
## Laptops & Textbooks

- Free Laptops for all the students
- Supply of free textbooks throughout the program for all students

**Caution Deposit:** All students are required to pay a caution deposit of ₹ 10,000 along with the first semester fee. The caution deposit will be refunded without interest after adjusting for dues, if any, to students on completion of the program.

## 8. Merit Scholarship based on ATIT 2020:

Percentile Score achieved in ATIT 2020	Scholarship Amount	Continuation of Scholarship in subsequent Semesters on maintaining minimum CGPA
95% - 100%	100% program fee of the 1 <sup>st</sup> Semester	Above 9.5
86% - 94%	75% program fee of the 1 <sup>st</sup> Semester	> = 9.0 to <9.5
76% - 85%	50% program fee of the 1 <sup>st</sup> Semester	> = 8.5 to <9.0
66% - 75%	25% program fee of the 1 <sup>st</sup> Semester	> = 7.5 to <8.5



## 9. Refund Policy (as per UGC norms):

**A) Refund of Admission Fee:** Students who withdraw from the program will be eligible for refund of fee as given in the table below:

S.No	Percentage of Refund of Admission Fee*	Point of time when request for withdrawal from the program reaches the Admissions Office
1	100% after deduction of processing fee of ₹ 1,000	On or before 30 June, 2020

**B) Refund of Program Fee:** Students who withdraw from the program will be eligible for refund of fee as given in the table below:

S.No	Percentage of Refund of Aggregate Fees*	Point of time when request for withdrawal from the program reaches the Admissions office
1	100%	If withdrawn before semester registration date
2	75%	If withdrawn within 4 weeks from the date of semester registration
3	50%	If withdrawn after 4 weeks but before 8 weeks from the date of semester registration
4	No refund	If withdrawn after 8 weeks from the date of semester registration

(\* Inclusive of Program Fee and non-program fee but exclusive of caution deposit and security deposit)

## 10. Reporting Process for Admission

- Reporting for Admissions at IcfaiTech is on 15 July, 2020.**
- Submission of Original Certificates:** All successful candidates will have to submit relevant certificates (Class X and Class XII Mark Sheets, Birth Certificate, Transfer / Migration Certificate and Completion Certificate of the qualifying examination from the respective board on 15 July, 2020 at IcfaiTech campus. The original certificates will be returned to the applicants within a week's time after verification.

**For Final Year (10+2) students:** Final-Year students of (10+2) who have not received the original certificates from the board by 15 July, 2020 will have to submit the same along with a set of photocopies on or before 30 September, 2020. Their admissions will be confirmed only on receipt of the original certificates, and will be subject to obtaining minimum stipulated percentage for admission into the B.Tech Program.

- Medical Examination:** All students who have taken admission need to undergo medical examination at IcfaiTech campus on 17 July, 2020.
- Accommodation and Transportation:** Limited hostel rooms are available at the campus. Day scholars can avail bus facility from City to IcfaiTech Campus on payment basis.



# Admission Modalities for Higher Degree and Doctoral Degree Programs

## 1. Eligibility Criteria

### For Admission into Higher Degree Programs

- Pass with 60% aggregate marks or equivalent CGPA in Bachelors degree in the relevant branch of Engineering.
- M.Sc in Physics/Electronics/Mathematics with 60% aggregate marks and a valid GATE score.
- Students awaiting their final year final semester results may also apply.
- Must have qualified GATE.

### For Admission into the Doctoral Degree Programs

- M.Tech or it's equivalent with a minimum of 60% aggregate marks or equivalent CGPA.
- Bachelor's degree in Engineering/Technology/M.Sc with exceptionally good academic record are eligible for admission into Ph.D program in Engineering and Technology, subject to one of the following conditions:
- B.Tech degree from IITs and NITs with a minimum CGPA of 8.0 or its equivalent.
- B.Tech degree holder from a reputed R & D organization with proven research record.
- B.Tech degree from other Universities with a minimum CGPA of 8.0 or its equivalent and a valid GATE score.

Admissions will be offered based on scores secured in the Research Aptitude Test-2020 (RAPT-2020). Candidates who have qualified NET /GATE exams are exempted from appearing for RAPT. Such candidates will be directly called for interview.

## 2. Fee

Fee	M.Tech.	Ph.D.
Admission Fee in Rs	20,000	20,000
Caution Deposit in Rs	10,000	10,000
Fee Payable for Each Semester		
Tuition Fee in Rs	30,000	30,000

## 3. Important Dates

S. No.	Date (2020)	Activity
1	15 May	Last date for receipt of Application
2	30 May	Entrance Test (RAPT)
3	15 June	Selection Interviews
4	25 July – 30 July	Orientation
5	1 August	Registration
6	3 August	Commencement of Classes



# Program Structures





# Integrated First Degree Programs

## 1. Three Year Programs

### B.Sc. Programs: General Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U	
I	CHEM 111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability & Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming-I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>		
<b>Semester-III</b>						<b>Semester-IV</b>					
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
		CDC (I)	3	0	3		CDC (I)	3	0	3	
<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>22</b>		
<b>Summer Term Internship Program IP 221</b>										<b>5</b>	
<b>Semester-III</b>						<b>Semester-IV</b>					
III	CDC (7)				22	--	Humanities Electives (2)			6	
					--	Electives (5)			15		
<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>		
<b>Total No of Credits</b>											<b>133</b>

AO-Analysis Oriented; CHEM-Chemistry; ECON-Economics; ES-Engineering Sciences; EGL-English; EVS-Environmental Science; HS-Humanities and Social Sciences; MATH-Mathematics; MGTS-Management Studies; PHY-Physics; TA-Technical Art; IP-Internship Program; TS-Thesis & Seminar. L-Lectures; P-Practicals; U-Units; CDC-Compulsory Discipline Course.

*Note: Program Structure is tentative, subject to change.*





## 1.1 Compulsory Discipline Courses for the B.Sc. Programs

Mathematics				
Course Code	Course Title	L	P	U
MATH211	Stochastic Processes	3	0	3
MATH221	Partial Differential Equations & Systems of ODEs	3	0	3
MATH311	Real Analysis	3	0	3
MATH312	Algebra	3	0	3
MATH313	Graph Theory	3	0	3
MATH314	Combinatorial Mathematics	3	0	3
MATH315	Cryptography	3	0	3
MATH316	Statistical Methods	3	2	4
MATH317	Differential Geometry	3	0	3
Physics				
Course Code	Course Title	L	P	U
PHY211	Optics	3	0	3
PHY221	Partial Differential Equations & Systems of ODEs	3	0	3
PHY311	Solid State Physics	3	0	3
PHY312	Introductory Quantum Mechanics	3	0	3
PHY313	Classical Electrodynamics	3	0	3
PHY314	Introduction to Statistical Mechanics	3	0	3
PHY315	Atomic Molecular & Nuclear Physics	3	0	3
PHY316	Instrumental Methods of Analysis	1	6	4
PHY317	Introduction to Monte-Carlo Methods	3	0	3

## 1.2 Electives for B.Sc. (Mathematics)

Mathematics				
Course Code	Course Title	L	P	U
MATH323	Metric Spaces	3	0	3
MATH324	Rings and Fields	3	0	3
MATH325	Topology	3	0	3
MATH326	Advanced Probability Theory	3	0	3
MATH327	Continuum Mechanics	3	0	3
MATH328	Advanced Combinatorics	3	0	3

## 1.3 Electives for B.Sc. (Physics)

Mathematics				
Course Code	Course Title	L	P	U
PHY323	Classical Mechanics	3	0	3
PHY324	Nanotechnology	3	0	3
PHY325	Special Theory of Relativity	3	0	3
PHY326	Introduction to Acoustics	3	0	3
PHY327	Introduction to Quantum Computation	3	0	3

## 1.4 List of Humanities Electives for Integrated First Degree Programs

Mathematics				
Course Code	Course Title	L	P	U
HS311	Dynamics of Social Change	3	0	3
HS312	Introduction to Psychology	3	0	3
HS313	Heritage of India	3	0	3
HS314	Modern Political Science	3	0	3
HS315	Public Administration	3	0	3
HS316	Professional Ethics	3	0	3



## 2. Four Year Programs

### B.Tech Programs: General Structure

Year	Course Code	Semester-I	L	P	U	Course Code	Semester-II	L	P	U	
I	CHEM111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability & Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>		
<b>Semester-III</b>						<b>Semester-IV</b>					
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
	–	Discipline Core (I)	3	0	3	–	Discipline Core (I)	3	0	3	
<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>22</b>		
<b>SUMMER TERM</b>		<b>IP 221</b>		<b>INTERNSHIP PROGRAM I (for Internship option only)</b>				<b>5</b>			
<b>Semester-V</b>						<b>Semester-VI</b>					
III	AO311	Numerical Methods	3	0	3	–	Humanities Elective	3	0	3	
	AO312	Control Systems	3	0	3	–	Special Project(I)	0	0	3	
	–	CDC (4)				13	CDC (4)				13
	–	Elective	3	0	3	–	Elective	3	0	3	
<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>22</b>		
<b>Semester-VII</b>						<b>Semester-VIII</b>					
IV	IP401/	Internship Program II /	20			–	Electives (4)	18			
	TS401	Thesis & Seminar				–	Humanities Elective (2)				
	OR						OR				
	–	Electives (4)	18			IP401/	Internship Program II /	20			
–	Humanities Elective(2)	TS401				Thesis & Seminar					
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>20/18</b>		
<b>Total No of Credits</b>						<b>172</b>					

AO-Analysis Oriented; CHEM-Chemistry; ECON-Economics; ES-Engineering Sciences; EGL-English; EVS-Environmental Science; HS-Humanities and Social Sciences; MATH-Mathematics; MGTS-Management Studies; PHY-Physics; TA-Technical Art; IP-Internship Program; TS-Thesis & Seminar. L-Lectures; P-Practicals; U-Units

*Note: Program Structure is tentative, subject to change.*



## 2.1 Discipline Core Courses for the B.Tech Programs

Civil Engineering (CE)				
Course Code	Course Title	L	P	U
CE211	Surveying	2	2	3
CE221	Mechanics of Solids	2	2	3
Computer Science & Engineering (CSE)				
Course Code	Course Title	L	P	U
CS211	Discrete Structures for Computer Science	3	0	3
CS221	Data Structures	2	2	3
Data Science and Artificial Intelligence (DS & AI)				
Course Code	Course Title	L	P	U
DS211	Discrete Structures for Computer Science	3	0	3
DS221	Data Structures	2	2	3
Electronics and Communication Engineering (ECE)				
Course Code	Course Title	L	P	U
EC211	Signals & Systems	3	0	3
EC221	Data Structures	2	2	3
Mechatronics				
Course Code	Course Title	L	P	U
MEC211	Elements of Mechatronics	3	0	3
MEC221	Kinematics & Dynamics of Machinery	3	0	3

## 2.2 Compulsory Discipline Courses for the B.Tech Programs

Civil Engineering (CE)				
Course Code	Course Title	L	P	U
CE311	Fluid Mechanics	2	2	3
CE312	Soil Mechanics	3	2	4
CE313	Analysis of Structures	3	0	3
CE314	Water Resource Engineering	3	0	3
CE321	Construction Materials & Practices	3	2	4
CE322	Design of Concrete Structures	3	0	3
CE323	Transportation Engineering	3	0	3
CE324	Data Structures	2	2	3

Computer Science and Engineering (CSE)				
Course Code	Course Title	L	P	U
CS311	Microprocessor Programming & Interfacing	3	0	3
CS312	Operating Systems	3	2	4
CS313	Theory of Computation	3	0	3
CS314	Database Management Systems	2	2	3
CS321	Programming Languages & Compiler Construction	3	0	3
CS322	Computer Organization & Architecture	3	0	3
CS323	Computer Networks	3	0	3
CS324	Design & Analysis of Algorithms	3	2	4

Data Science and Artificial Intelligence (DS & AI)				
Course Code	Course Title	L	P	U
DS311	Artificial Intelligence	3	0	3
CS312	Operating Systems	3	2	4
DS313	Introduction to Data Science	3	0	3
DS314	Data Warehousing and Mining	3	0	3
DS321	Machine Learning	3	2	4
DS322	Expert Systems	3	0	3
CS323	Computer Networks	3	0	3
DS324	Neural Networks & Fuzzy Logic	3	0	3

Electronics and Communication Engineering (ECE)				
Course Code	Course Title	L	P	U
EC311	Microprocessor Programming & Interfacing	3	0	3
EC312	Communication Systems	3	2	4
EC313	Electromagnetic Fields & Waves	3	0	3
EC314	Microelectronic Circuits	3	0	3
EC321	Analog Electronics	2	2	3
EC322	Analog & Digital VLSI Design	3	0	3
EC323	RF & Microwave Engineering	3	2	4
EC324	Digital Signal Processing	3	0	3

Mechatronics				
Course Code	Course Title	L	P	U
MEC311	Introduction to Robotics	3	0	3
MEC312	Materials for Mechatronic Systems	3	0	3
MEC313	Instrumentation & Measurement	3	0	3
MEC314	Micro Processors & Controllers	3	2	4
MEC321	Mechatronics System Design	3	0	3
MEC322	Actuators, Drives & Sensors	3	0	3
MEC323	Manufacturing Processes	3	2	4
MEC324	Micro Electro Mechanical Systems	3	0	3





### 2.3 List of electives for B.Tech (CE)

Structural Design Specialization					
Course Code	Course Title	L	P	U	
CE401	Finite Element Methods	2	2	3	
CE402	Design of Steel Structures	3	0	3	
CE403	Computer Aided Design	1	2	2	
CE404	Design of Industrial Structures	3	0	3	
CE405	Stability of Structures	3	0	3	
CE406	Building Drawing, Estimation & Costing	2	2	3	
Geotechnical Engineering Specialization					
Course Code	Course Title	L	P	U	
CE407	Foundation Engineering	3	0	3	
CE408	Ground Improvement Techniques	3	0	3	
CE409	Soil Dynamics and Machine Foundations	3	0	3	
CE 410	Structures on Expansive Soils	2	0	2	
CE 411	Environmental Geo-technology	3	0	3	
Transportation Engineering Specialization					
Course Code	Course Title	L	P	U	
CE412	Geo-Informatics in Transportation Engineering	3	0	3	
CE413	Railway, Dock and Harbor Engineering	3	0	3	
CE414	Urban Transportation Planning	2	0	2	
CE415	Pavement Evaluation, Rehabilitation And Maintenance	3	0	3	
Environmental Engineering Specialization					
Course Code	Course Title	L	P	U	
CE 416	Hazardous Waste Management	3	0	3	
CE417	Remote Sensing & GIS	3	0	3	
CE418	Environmental Impact Assessment	2	0	2	
CE419	Environmental Systems	3	0	3	
CE421	Water Supply & Waste Water Engineering	3	0	3	
Management Specialization					
Course Code	Course Title	L	P	U	
CE422	Project Planning and Management	3	0	3	
CE423	Natural Disaster Mitigation and Management	2	0	2	
CE424	Infrastructure Financing	3	0	3	
CE425	Policies, Reforms, Law and Risk Management in Infrastructure Projects	3	0	3	
CE426	Materials , Management and Estimation	3	0	3	
Emerging Trends in Civil Engineering					
Course Code	Course Title	L	P	U	
CE427	Emerging Trends in Structural engineering	1	0	1	
CE428	Emerging Trends in Geotechnical Engineering	1	0	1	
CE429	Emerging Trends in Transportation Engineering	1	0	1	
CE430	Emerging Trends in Environmental Engineering	1	0	1	
CE431	Emerging Trends in Construction Management	1	0	1	

### 2.4 List of electives for B.Tech (CSE)

Database Specialization					
Course Code	Course Title	L	P	U	
CS401	Database Administration	3	0	3	
CS402	SQL & DB Applications	3	0	3	
CS403	Database Security & Privacy	3	0	3	
Networks Specialization					
Course Code	Course Title	L	P	U	
CS404	Wireless Networks	3	0	3	
CS405	Network Administration	3	0	3	
CS406	Network Security	3	0	3	
CS407	Cyber Security	3	0	3	
Programming Languages & Applications Specialization					
Course Code	Course Title	L	P	U	
CS408	Advanced JAVA	3	0	3	
CS409	Mobile Application Development	3	0	3	
CS410	Scripting Languages	3	0	3	
CS411	Web Enabled Technologies	3	0	3	
CS412	Computer Graphics	3	0	3	
Software Engineering Specialization					
Course Code	Course Title	L	P	U	
CS413	Software Engineering	3	0	3	
CS414	Service Oriented Architecture	3	0	3	
CS415	Object Oriented Analysis & Design	3	0	3	
CS416	Software Testing Methodologies	3	0	3	
Advanced Computing Specialization					
Course Code	Course Title	L	P	U	
CS417	High Performance Computing	3	0	3	
CS418	Advanced Computer Architecture	3	0	3	
CS419	Multicore Architecture	3	0	3	
CS421	Parallel Computing	3	0	3	

### 2.5 List of electives for B.Tech (DS & AI)

Data Science Specialization					
Course Code	Course Title	L	P	U	
DS401	Predictive Analytics	3	0	3	
DS402	System for Data Analytics	3	0	3	
DS403	Data Visualization	3	0	3	
DS404	Big Data Systems	3	0	3	
DS405	Real Time Analytics	3	0	3	
Artificial Intelligence Specialization					
Course Code	Course Title	L	P	U	
DS406	Natural Language Processing	3	0	3	
DS407	Soft Computing	3	0	3	
DS408	Human Computer Interaction	3	0	3	
DS409	Computer Vision	3	0	3	
Cloud Computing Specialization					
Course Code	Course Title	L	P	U	
DS410	Distributed Cloud Computing	3	0	3	
DS411	Internet of Things	3	0	3	
DS412	Security & Privacy in Cloud Computing	3	0	3	
DS413	Cloud Administration	3	0	3	
Blockchain Specialization					
Course Code	Course Title	L	P	U	
DS414	Fundamentals of Blockchain Technology.	3	0	3	
DS415	Ethereum & Solidity Programming Essentials	3	0	3	

## 2.6 List of electives for B.Tech (ECE)

Communication Electives					
Course Code	Course Title	L	P	U	
EC401	MIMO Wireless Communication	3	0	3	
EC402	High Speed Communication Networks	3	0	3	
EC403	Wireless Communication Networks	3	0	3	
EC404	Optical Fiber Communications	3	0	3	
EC405	Satellite Communications	3	0	3	
EC406	Mobile Communication	3	0	3	
Microwave Electives					
Course Code	Course Title	L	P	U	
EC407	Antenna and wave propagation	3	0	3	
EC408	Radar Systems	3	0	3	
EC409	RF and Microwave MEMs	3	0	3	
EC410	Smart Antennas for Mobile Communication	3	0	3	
VLSI Electives					
Course Code	Course Title	L	P	U	
EC411	Low power VLSI Design	3	0	3	
EC412	Digital Design Using HDLS	3	0	3	
EC413	CMOS Analog Integrated Circuit Design	3	0	3	
EC414	VLSI Design for Testability	3	0	3	
EC415	Digital Systems	3	0	3	
Embedded Electives					
Course Code	Course Title	L	P	U	
EC416	Embedded Systems (H/W)	3	0	3	
EC417	Hardware Software Co- Design	3	0	3	
EC418	Embedded Real Time Operating System	3	0	3	
EC419	DSP Processors and Architecture	3	0	3	
EC421	Microcontrollers & Applications	3	0	3	
Design Electives					
Course Code	Course Title	L	P	U	
EC422	Image Processing	3	0	3	
EC423	Sensors & Actuators	3	0	3	
EC424	Data Compression & Encryption	3	0	3	
Controls					
Course Code	Course Title	L	P	U	
EE401	Stochastic Control Systems	3	0	3	
EE402	Process Control	3	0	3	
EE403	Digital Control Systems	3	0	3	
EE404	Power system controls and stability	3	0	3	
EE405	Vehicle Electric Power System	3	0	3	
Power Electronics					
Course Code	Course Title	L	P	U	
EE406	Power Electronics Applications and Drives	3	0	3	
EE407	Advanced Power Electronics	3	0	3	
EE408	Flexible AC Transmission System	3	0	3	
EE409	HVDC Transmission	3	0	3	
Power Systems					
Course Code	Course Title	L	P	U	
EE410	Power System Transients	3	0	3	
EE411	High Voltage Engineering	3	0	3	
EE412	Power Quality	3	0	3	
EE413	Power Generation Systems	3	0	3	
Electrical Machines					
Course Code	Course Title	L	P	U	
EE414	Special Machines	3	0	3	
EE415	Electrical Machine Design	3	0	3	
EE416	Utilization of Electrical Energy	3	0	3	
EE417	Machine Modeling And Analysis	3	0	3	

## 2.7 List of electives for B.Tech (Mechatronics)

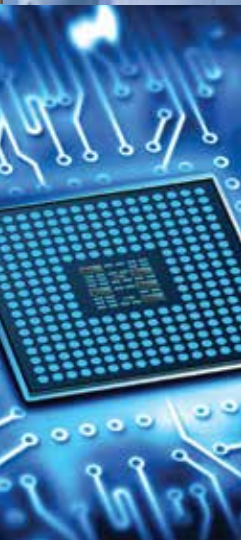
Robotics Specialization					
Course Code	Course Title	L	P	U	
MEC401	Advances in Robotics	3	0	3	
MEC402	Haptics	3	0	3	
MEC403	Computational Motion Planning	3	0	3	
MEC404	Humanoids	3	0	3	
MEC405	Human Robot Interaction (HRI)	3	0	3	
MEC406	Mobile Robotics	3	0	3	
MEC407	Unmanned Aerial Vehicles	3	0	3	
MEC408	Autotronics	3	0	3	
Bio-Robotics Specialization					
Course Code	Course Title	L	P	U	
MEC409	BioMechanics	3	0	3	
MEC410	BioMechatronics	3	0	3	
MEC411	Protein Kinematics	3	0	3	
MEC412	Neural Computation	3	0	3	
MEC413	Soft Robotics	3	0	3	
Medical Robotics Specialization					
Course Code	Course Title	L	P	U	
MEC414	Medical Devices	3	0	3	
MEC415	Tissue Modelling	3	0	3	
MEC416	Medical Image Processing	3	0	3	
MEC417	Cognitive Robotics	3	0	3	
MEC418	Surgical Robots	3	0	3	
MEC419	Machine Perception	3	0	3	
Manufacturing Specialization					
Course Code	Course Title	L	P	U	
MEC421	Nano Electro Mechanical Systems	3	0	3	
MEC422	Smart Materials	3	0	3	
MEC423	CNC Technology	3	0	3	
MEC424	Computer Integrated Manufacturing	3	0	3	
MEC425	Hydraulic and Pneumatic Systems	3	0	3	

## 2.8 List of Humanities electives for B.Tech. Program

Mathematics					
Course Code	Course Title	L	P	U	
HS311	Dynamics of Social Change	3	0	3	
HS312	Introduction to Psychology	3	0	3	
HS313	Heritage of India	3	0	3	
HS314	Modern Political Science	3	0	3	
HS315	Public Administration	3	0	3	
HS316	Professional Ethics	3	0	3	







# Five Year Dual Degree Programs

## Five Year Integrated Dual Degree Programs B.Sc. (First Degree)-B.Tech. (Second Degree): General Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U	
I	CHEM 111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U	
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
	-	First Degree CDC (1)	3	0	3	-	First Degree CDC (1)	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>22</b>	
<b>Summer Term IP221 Internship Program I</b>										<b>5</b>	
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U	
III	First Degree CDC (6) Second Degree CDC (1)		22			AO311	Numerical Methods	3	0	3	
						AO312	Control systems	3	0	3	
						-	Humanities Electives (2)		6	6	
							Elective	3	0	3	
							First Degree CDC (1)	3	0	3	
							Second Degree CDC (1)	3	0	3	
<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U	
IV		Electives (1)	3	0	3	-	Elective (1)	3	0	3	
	-	Second Degree CDC (4)			13	-	Second Degree CDC (4)			13	
	-	Humanities Elective	3	0	3		Special Project	3	0	3	
<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>		
Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 /	Internship Program-II OR	20				Electives (5)	18			
	TS401	Thesis and Seminar					Humanities Elective (1)				
		Electives (5)	18			IP401 /	Internship Program-II OR	20			
		Humanities Elective (1)				TS401	Thesis and Seminar				
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>		
<b>Total No of Credits</b>										<b>209</b>	

Note: Program Structure is tentative, subject to change.

## B.Sc (Mathematics) and B.Tech (CE) Integrated Dual Degree Program Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U		
I	CHEM 111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3		
	EGL112	English Language Skills	3	0	3	AO122	Probability & Statistics	3	0	3		
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3		
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3		
	TA115	Engineering graphics	2	4	4	TA125	Scientific Measurements	0	4	2		
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4		
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3		
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U		
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3		
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4		
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3		
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3		
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3		
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3		
	MATH217	Stochastic Process	3	0	3	MATH221	Partial Differential Equations & Systems of ODEs	3	0	3		
	<b>Total No of Credits</b>			<b>20</b>			<b>Total No of Credits</b>			<b>21</b>		
<b>Summer Term Internship Program IP 221</b>										<b>5</b>		
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U		
III	MATH311	Real Analysis	3	0	3	AO311	Numerical Methods	3	0	3		
	MATH312	Algebra	3	0	3	AO312	Control systems	3	0	3		
	MATH313	Graph Theory	3	0	3	-	Humanities Elective	3	0	3		
	MATH314	Combinatorial Mathematics	3	0	3		Elective (I)	3	0	3		
	MATH316	Statistical Methods	3	2	4	MATH315	Cryptography	3	0	3		
	MATH317	Differential Geometry	3	0	3	CE221	Mechanics of Solids	2	2	3		
	CE211	Surveying	2	2	3							
	<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U		
IV	CE311	Fluid Mechanics	2	2	3	CE321	Construction Materials & Practices	3	2	4		
	CE312	Soil Mechanics	3	2	4	CE322	Design of Concrete Structures	3	0	3		
	CE313	Analysis of Structures	3	0	3	CE323	Transportation Engineering	3	0	3		
	CE314	Water Resources Engineering	3	0	3	CE324	Data Structures	2	2	3		
	-	Elective (I)	3	0	3	-	Elective (I)	3	0	3		
	-	Humanities Elective	3	0	3	-	Special Project	3	0	3		
	<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>		
	Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 /	Internship Program-II OR	20				Electives (5)	18				
	TS401	Thesis and Seminar					Humanities Elective (I)					
		Electives (5)	18			IP401 /	Internship Program-II OR	20				
		Humanities Elective (I)				TS401	Thesis and Seminar					
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>			
<b>Total No of Credits</b>										<b>209</b>		

Note: Program Structure is tentative, subject to change.



## B.Sc (Mathematics) and B.Tech(CSE) Integrated Dual Degree Program Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U		
I	CHEM 111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3		
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3		
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3		
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3		
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2		
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4		
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3		
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U		
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3		
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4		
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3		
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3		
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3		
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3		
	MATH217	Stochastic Process	3	0	3	PHY221	Partial Differential Equations & Systems of ODEs	3	0	3		
	<b>Total No of Credits</b>			<b>20</b>			<b>Total No of Credits</b>			<b>22</b>		
<b>Summer Term Internship Program IP 221</b>										<b>5</b>		
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U		
III	MATH311	Real Analysis	3	0	3	AO311	Numerical Methods	3	0	3		
	MATH312	Algebra	3	0	3	AO312	Control systems	3	0	3		
	MATH313	Graph Theory	3	0	3	-	Humanities Elective	3	0	3		
	MATH314	Combinatorial Mathematics	3	0	3		Elective	3	0	3		
	MATH316	Statistical Methods	3	2	4	MATH315	Cryptography	3	0	3		
	MATH317	Differential Geometry	3	0	3	CS221	Data Structures	2	2	3		
	CS211	Discrete Structures for Computer Science	3	0	3							
	<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U		
IV	CS311	Microprocessor Programming & Interfacing	3	0	3	CS321	Programming Languages & Compiler Construction	3	0	3		
	CS312	Operating Systems	3	2	4	CS322	Computer Organization & Architecture	3	0	3		
	CS313	Theory of Computation	3	0	3	CS323	Computer Networks	3	0	3		
	CS314	Database Management Systems	2	2	3	CS324	Design & Analysis of Algorithms	3	2	4		
	-	Elective (I)	3	0	3	-	Elective (I)	3	0	3		
	-	Humanities Elective	3	0	3	-	Special Project	3	0	3		
	<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>		
	Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 /	Internship Program-II OR	20				Electives (5)	18				
	TS401						Humanities Elective (I)					
		Electives (5)	18			IP401 /	Internship Program-II OR	20				
						TS401	Thesis and Seminar					
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>			
<b>Total No of Credits</b>										<b>209</b>		

Note: Program Structure is tentative, subject to change.

## B.Sc (Mathematics) and B.Tech (DS&AI) Dual Degree Program Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U		
I	CHEM111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3		
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3		
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3		
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3		
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2		
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4		
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3		
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U		
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3		
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4		
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3		
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3		
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3		
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3		
	MATH217	Stochastic Process	3	0	3	PHY221	Partial Differential Equations & Systems of ODEs	3	0	3		
	<b>Total No of Credits</b>			<b>20</b>			<b>Total No of Credits</b>			<b>22</b>		
<b>Summer Term Internship Program IP 221</b>										<b>5</b>		
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U		
III	MATH311	Real Analysis	3	0	3	AO311	Numerical Methods	3	0	3		
	MATH312	Algebra	3	0	3	AO312	Control systems	3	0	3		
	MATH313	Graph Theory	3	0	3	–	Humanities Elective	3	0	3		
	MATH314	Combinatorial Mathematics	3	0	3		Elective	3	0	3		
	MATH316	Statistical Methods	3	2	4	MATH315	Cryptography	3	0	3		
	MATH317	Differential Geometry	3	0	3	DS221	Data Structures	2	2	3		
	DS211	Discrete Structures for Computer Science	3	0	3							
	<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U		
IV	DS311	Artificial Intelligence	3	0	3	DS321	Machine Learning	3	2	4		
	CS312	Operating Systems	3	2	4	DS322	Expert Systems	3	0	3		
	DS313	Introduction to Data Science	3	0	3	CS323	Computer Networks	3	0	3		
	DS314	Data Warehousing and Mining	3	0	3	DS324	Neural Networks & Fuzzy Logic	3	0	3		
	–	Elective (I)	3	0	3	–	Elective (I)	3	0	3		
	–	Humanities Elective	3	0	3	–	Special Project	3	0	3		
	<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>		
	Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 /	Internship Program-II OR	20				Electives (5)	18				
	TS401	Thesis and Seminar					Humanities Elective (I)					
		Electives (5)	18			IP401 /	Internship Program-II OR	20				
		Humanities Elective (I)				TS401	Thesis and Seminar					
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>			
<b>Total No of Credits</b>										<b>209</b>		

Note: Program Structure is tentative, subject to change.

**B.Sc (Mathematics) and B.Tech.(ECE)**  
**Integrated Dual Degree Program Structure**

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U	
I	CHEM 111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U	
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
	MATH217	Stochastic Process	3	0	3	PHY221	Partial Differential Equations & Systems of ODEs	3	0	3	
	<b>Total No of Credits</b>			<b>20</b>			<b>Total No of Credits</b>			<b>22</b>	
<b>Summer Term Internship Program IP 221</b>										<b>5</b>	
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U	
III	MATH311	Real Analysis	3	0	3	AO311	Numerical Methods	3	0	3	
	MATH312	Algebra	3	0	3	AO312	Control systems	3	0	3	
	MATH313	Graph Theory	3	0	3	-	Humanities Elective	3	0	3	
	MATH314	Combinatorial Mathematics	3	0	3		Elective	3	0	3	
	MATH316	Statistical Methods	3	2	4	MATH315	Cryptography	3	0	3	
	MATH317	Differential Geometry	3	0	3	EC221	Data Structures	2	2	3	
	EC211	Signals & Systems	3	0	3						
	<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U	
IV	EC311	Microprocessor Programming & Interfacing	3	0	3	EC321	Analog Electronics	2	2	3	
	EC312	Communication Systems	3	2	4	EC322	Analog & Digital VLSI Design	3	0	3	
	EC313	Electromagnetic Fields & Waves	3	0	3	EC323	RF & Microwave Engineering	3	2	4	
	EC314	Microelectronic Circuits	3	0	3	EC324	Digital Signal Processing	3	0	3	
	-	Elective (I)	3	0	3	-	Elective (I)	3	0	3	
	-	Humanities Elective	3	0	3		Special Project	3	0	3	
	<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>	
Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 /	Internship Program-II OR	20				Electives (5)	18			
	TS401	Thesis and Seminar					Humanities Elective (I)				
		Electives (5)	18			IP401 /	Internship Program-II OR	20			
		Humanities Elective (I)				TS401	Thesis and Seminar				
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>		
<b>Total No of Credits</b>										<b>209</b>	

Note: Program Structure is tentative, subject to change.

## B.Sc (Mathematics) and B.Tech(Mechatronics) Integrated Dual Degree Program Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U	
I	CHEM 111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U	
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
	MATH217	Stochastic Process	3	0	3	PHY221	Partial Differential Equations & Systems of ODEs	3	0	3	
	<b>Total No of Credits</b>			<b>20</b>			<b>Total No of Credits</b>			<b>22</b>	
<b>Summer Term Internship Program IP 221</b>									<b>5</b>		
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U	
III	MATH311	Real Analysis	3	0	3	AO311	Numerical Methods	3	0	3	
	MATH312	Algebra	3	0	3	AO312	Control systems	3	0	3	
	MATH313	Graph Theory	3	0	3	–	Humanities Elective	3	0	3	
	MATH314	Combinatorial Mathematics	3	0	3		Elective	3	0	3	
	MATH316	Statistical Methods	3	2	4	MATH315	Cryptography	3	0	3	
	MATH317	Differential Geometry	3	0	3	MEC221	Kinematics & Dynamics of Machinery	3	0	3	
	MEC211	Elements of Mechatronics	3	0	3						
	<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U	
IV	MEC311	Introduction to Robotics	3	0	3	MEC321	Mechatronics System Design	3	0	3	
	MEC312	Materials for Mechatronic Systems	3	0	3	MEC322	Actuators, Drives & Sensors	3	0	3	
	MEC313	Instrumentation & Measurement	3	0	3	MEC323	Manufacturing Processes	3	2	4	
	MEC314	Micro Processors & Controllers	3	2	4	MEC324	Micro Electro Mechanical Systems	3	0	3	
	–	Elective (I)	3	0	3	–	Elective (I)	3	0	3	
	–	Humanities Elective	3	0	3	–	Special Project	3	0	3	
	<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>	
Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 /	Internship Program-II OR	20				Electives (5)	18			
	TS401						Humanities Elective (1)				
		Electives (5)	18			IP401 /	Internship Program-II OR	20			
						Humanities Elective (1)	TS401				Thesis and Seminar
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>		
<b>Total No of Credits</b>									<b>209</b>		

Note: Program Structure is tentative, subject to change.

## B.Sc (Physics) and B.Tech(CE) Integrated Dual Degree Program Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U	
I	CHEM111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U	
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
	PHY211	Optics	3	0	3	PHY221	Partial Differential Equations & Systems of ODEs	3	0	3	
<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>22</b>		
<b>Summer Term Internship Program IP 221</b>									<b>5</b>		
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U	
III	PHY311	Solid State Physics	3	0	3	AO311	Numerical Methods	3	0	3	
	PHY312	Introductory Quantum Mechanics	3	0	3	AO312	Control systems	3	0	3	
	PHY313	Classical Electrodynamics	3	0	3	–	Humanities Electives (2)		6		
	PHY314	Introduction to Statistical Mechanics	3	0	3	–	Elective	3	0	3	
	PHY316	Instrumental Methods of Analysis	1	6	4	PHY321	Atomic Molecular & Nuclear Physics	3	0	3	
	PHY317	Introduction to Monte-Carlo Methods	3	0	3	CE221	Mechanics of Solids	2	2	3	
	CE211	Surveying	2	2	3						
<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U	
IV	CE311	Fluid Mechanics	2	2	3	CE321	Construction Materials & Practices	3	2	4	
	CE312	Soil Mechanics	3	2	4	CE322	Design of Concrete Structures	3	0	3	
	CE313	Analysis of Structures	3	0	3	CE323	Transportation Engineering	3	0	3	
	CE314	Water Resources Engineering	3	0	3	CE324	Data Structures	2	2	3	
	–	Elective (I)	3	0	3	–	Elective (I)	3	0	3	
	–	Humanities Elective	3	0	3	–	Special Project	3	0	3	
<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>		
Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 /	Internship Program-II OR	20				Electives (5)	18			
	TS401	Thesis and Seminar					Humanities Elective (1)				
		Electives (5)	18			IP401 /	Internship Program-II OR	20			
		Humanities Elective (1)				TS401	Thesis and Seminar				
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>		
<b>Total No of Credits</b>									<b>209</b>		

Note: Program Structure is tentative, subject to change.

## B.Sc (Physics) and B.Tech(CSE) Integrated Dual Degree Program Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U	
I	CHEM111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U	
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
	PHY211	Optics	3	0	3	PHY221	Partial Differential Equations & Systems of ODEs	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>22</b>	
<b>Summer Term Internship Program IP 221</b>									<b>5</b>		
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U	
III	PHY311	Solid State Physics	3	0	3	AO311	Numerical Methods	3	0	3	
	PHY312	Introductory Quantum Mechanics	3	0	3	AO312	Control systems	3	0	3	
	PHY313	Classical Electrodynamics	3	0	3	–	Humanities Electives (2)	6			
	PHY314	Introduction to Statistical Mechanics	3	0	3	–	Elective	3	0	3	
	PHY316	Instrumental Methods of Analysis	1	6	4	PHY321	Atomic Molecular & Nuclear Physics	3	0	3	
	PHY317	Introduction to Monte-Carlo Methods	3	0	3	CS221	Data Structures	2	2	3	
	CS211	Discrete Structures for Computer Science	3	0	3						
	<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U	
IV	CS311	Microprocessor Programming & Interfacing	3	0	3	CS321	Programming Languages & Compiler Construction	3	0	3	
	CS312	Operating Systems	3	2	4	CS322	Computer Organization & Architecture	3	0	3	
	CS313	Theory of Computation	3	0	3	CS323	Computer Networks	3	0	3	
	CS314	Database Management Systems	2	2	3	CS324	Design & Analysis of Algorithms	3	2	4	
	–	Elective (1)	3	0	3	–	Elective (1)	3	0	3	
	–	Humanities Elective	3	0	3	–	Special Project	3	0	3	
	<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>	
Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 / TS401	Internship Program-II OR Thesis and Seminar	20				Electives (5)	18			
		Electives (5)					Humanities Elective (1)				
		Humanities Elective (1)	18			IP401 / TS401	Internship Program-II OR Thesis and Seminar	20			
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>		
<b>Total No of Credits</b>									<b>209</b>		

Note: Program Structure is tentative, subject to change.

## B.Sc (Physics) and B.Tech.(DS&AI) Integrated Dual Degree Program Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U	
I	CHEM 111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U	
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
	PHY211	Optics	3	0	3	PHY221	Partial Differential Equations & Systems of ODEs	3	0	3	
<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>22</b>		
<b>Summer Term Internship Program IP 221</b>									<b>5</b>		
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U	
III	PHY311	Solid State Physics	3	0	3	AO311	Numerical Methods	3	0	3	
	PHY312	Introductory Quantum Mechanics	3	0	3	AO312	Control systems	3	0	3	
	PHY313	Classical Electrodynamics	3	0	3	–	Humanities Electives (2)	6			
	PHY314	Introduction to Statistical Mechanics	3	0	3	–	Elective	3	0	3	
	PHY316	Instrumental Methods of Analysis	1	6	4	PHY321	Atomic Molecular & Nuclear Physics	3	0	3	
	PHY317	Introduction to Monte-Carlo Methods	3	0	3	DS221	Data Structures	2	2	3	
	DS211	Discrete Structures for Computer Science	3	0	3						
<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>		
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U	
IV	DS311	Artificial Intelligence	3	0	3	DS321	Machine Learning	3	2	4	
	CS312	Operating Systems	3	2	4	DS322	Expert Systems	3	0	3	
	DS313	Introduction to Data Science	3	0	3	CS323	Computer Networks	3	0	3	
	DS314	Data Warehousing and Mining	3	0	3	DS324	Neural Networks & Fuzzy Logic	3	0	3	
	–	Elective (1)	3	0	3	–	Elective (1)	3	0	3	
	–	Humanities Elective	3	0	3	–	Special Project	3	0	3	
<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>		
Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 /	Internship Program-II OR	20				Electives (5)	18			
	TS401	Thesis and Seminar					Humanities Elective (1)				
		Electives (5)	18			IP401 /	Internship Program-II OR	20			
		Humanities Elective (1)				TS401	Thesis and Seminar				
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>		
<b>Total No of Credits</b>									<b>209</b>		

Note: Program Structure is tentative, subject to change.

## B.Sc (Physics) and B.Tech.(ECE) Integrated Dual Degree Program Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U	
I	CHEM 111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U	
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
	PHY211	Optics	3	0	3	PHY221	Partial Differential Equations & Systems of ODEs	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>22</b>	
<b>Summer Term Internship Program IP 221</b>										<b>5</b>	
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U	
III	PHY311	Solid State Physics	3	0	3	AO311	Numerical Methods	3	0	3	
	PHY312	Introductory Quantum Mechanics	3	0	3	AO312	Control systems	3	0	3	
	PHY313	Classical Electrodynamics	3	0	3	–	Humanities Electives (2)	6			
	PHY314	Introduction to Statistical Mechanics	3	0	3	–	Elective	3	0	3	
	PHY316	Instrumental Methods of Analysis	1	6	4	PHY321	Atomic Molecular & Nuclear Physics	3	0	3	
	PHY317	Introduction to Monte-Carlo Methods	3	0	3	EC221	Data Structures	2	2	3	
	EC211	Signals & Systems	3	0	3						
	<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U	
IV	EC311	Microprocessor Programming & Interfacing	3	0	3	EC321	Analog Electronics	2	2	3	
	EC312	Communication Systems	3	2	4	EC322	Analog & Digital VLSI Design	3	0	3	
	EC313	Electromagnetic Fields & Waves	3	0	3	EC323	RF & Microwave Engineering	3	2	4	
	EC314	Microelectronic Circuits	3	0	3	EC324	Digital Signal Processing	3	0	3	
	–	Elective (1)	3	0	3	–	Elective (1)	3	0	3	
	–	Humanities Elective	3	0	3	–	Special Project	3	0	3	
	<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>	
Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 / TS401	Internship Program-II OR Thesis and Seminar	20				Electives (5)	18			
		Electives (5)					Humanities Elective (1)				
		Humanities Elective (1)	18			IP401 / TS401	Internship Program-II OR Thesis and Seminar	20			
<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>		
<b>Total No of Credits</b>										<b>209</b>	

Note: Program Structure is tentative, subject to change.



## B.Sc (Physics) and B.Tech (Mechatronics) Integrated Dual Degree Program Structure

Year	Course #	Semester I	L	P	U	Course #	Semester II	L	P	U	
I	CHEM111	Chemistry	3	0	3	ES121	Thermodynamics	3	0	3	
	EGL112	English Language Skills	3	0	3	AO122	Probability and Statistics	3	0	3	
	MATH113	Linear Algebra	3	0	3	MATH123	Higher Calculus	3	0	3	
	PHY114	Physics I	3	0	3	PHY124	Physics II	3	0	3	
	TA115	Engineering Graphics	2	4	4	TA125	Scientific Measurements	0	4	2	
	TA116	Computer Programming I	3	0	3	TA126	Workshop Practice	2	4	4	
	EVS117	Environmental Science	2	0	2	TA127	Computer Programming II	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester III	L	P	U	Course #	Semester IV	L	P	U	
II	ES211	Electrical Sciences I	3	0	3	ES221	Electrical Sciences II	3	0	3	
	ES212	Digital Electronics	2	2	3	TA222	Engineering Measurements	1	8	4	
	ES213	Engineering Mechanics	3	0	3	TA223	Professional Communication	3	0	3	
	ECON214	Principles of Economics	3	0	3	MGTS224	Principles of Management	3	0	3	
	MATH215	Complex Variables	3	0	3	AO225	Optimization Techniques	3	0	3	
	MATH216	Differential Equations & Fourier Series	3	0	3	ES226	Structure & Properties of Materials	3	0	3	
	PHY211	Optics	3	0	3	PHY221	Partial Differential Equations & Systems of ODEs	3	0	3	
	<b>Total No of Credits</b>			<b>21</b>			<b>Total No of Credits</b>			<b>22</b>	
<b>Summer Term Internship Program IP 221</b>										<b>5</b>	
Year	Course #	Semester V	L	P	U	Course #	Semester VI	L	P	U	
III	PHY311	Solid State Physics	3	0	3	AO311	Numerical Methods	3	0	3	
	PHY312	Introductory Quantum Mechanics	3	0	3	AO312	Control systems	3	0	3	
	PHY313	Classical Electrodynamics	3	0	3	–	Humanities Electives (2)	6			
	PHY314	Introduction to Statistical Mechanics	3	0	3	–	Elective	3	0	3	
	PHY316	Instrumental Methods of Analysis	1	6	4	PHY321	Atomic Molecular & Nuclear Physics	3	0	3	
	PHY317	Introduction to Monte-Carlo Methods	3	0	3	MEC221	Kinematics & Dynamics of Machinery	3	0	3	
	MEC211	Elements of Mechatronics	3	0	3						
	<b>Total No of Credits</b>			<b>22</b>			<b>Total No of Credits</b>			<b>21</b>	
Year	Course #	Semester VII	L	P	U	Course #	Semester VIII	L	P	U	
IV	MEC311	Introduction to Robotics	3	0	3	MEC321	Mechatronics System Design	3	0	3	
	MEC312	Materials for Mechatronic Systems	3	0	3	MEC322	Actuators, Drives & Sensors	3	0	3	
	MEC313	Instrumentation & Measurement	3	0	3	MEC323	Manufacturing Processes	3	2	4	
	MEC314	Micro Processors & Controllers	3	2	4	MEC324	Micro Electro Mechanical Systems	3	0	3	
	–	Elective (1)	3	0	3	–	Elective (1)	3	0	3	
	–	Humanities Elective	3	0	3	–	Special Project	3	0	3	
	<b>Total No of Credits</b>			<b>19</b>			<b>Total No of Credits</b>			<b>19</b>	
Year	Course #	Semester IX	L	P	U	Course #	Semester X	L	P	U	
V	IP401 / TS401	Internship Program-II OR Thesis and Seminar	20				Electives (5)	18			
		Electives (5)	18			IP401 / TS401	Internship Program-II OR Thesis and Seminar	20			
		Humanities Elective (1)									
	<b>Total No of Credits</b>			<b>20/18</b>			<b>Total No of Credits</b>			<b>18/20</b>	
<b>Total No of Credits</b>										<b>209</b>	

Note: Program Structure is tentative, subject to change.



# Higher Degree Programs



## M.Tech. Programs: General Structure

Year	Semester I		Semester II	
	Course	Credits	Course	Credits
I	Research Methods-I	5	Research Methods-II	5
	Discipline Course-I	5	Interdisciplinary Course-I	5
	Discipline Course-II	5	Interdisciplinary Course-II	5
	Discipline Course-III	5	Elective-I	5
	Discipline Course-IV	5	Elective-II	5
	<b>Total Credits</b>	<b>25</b>	<b>Total Credits</b>	<b>25</b>
<b>Summer</b>				
II	Elective-III	5	Internship/Thesis	20
	Elective-IV	5		
	Special Project	10		
	<b>Total Credits</b>	<b>20</b>	<b>Total Credits</b>	<b>20</b>
<b>Total Units for the Program</b>				<b>90</b>

*Note: Program structure is tentative, subject to change.*

# List of Courses for the M.Tech Programs at IcfaiTech

M.Tech. (Data Analytics)	
S.No	Discipline Course
1	Research Methods I
2	Principles of Data Analytics
3	Marketing & Fraud Analytics
4	Time Series Analysis & Its Applications
5	Digital Marketing Analytics
6	Research Methods II
Interdisciplinary Courses	
1	Decision Theory & Statistical Inference
2	Applied Machine Learning
Electives	
1	Web Analytics
2	Financial Analytics
3	Credit & Insurance Risk Analysis
4	Health Analytics
5	Real Time Analytics
6	Information Visualization

M.Tech. (IoT)	
S.No	Discipline Course
1	Research Methods I
2	Communication Protocols in IoT
3	Platforms & Tools for Application Development in IoT
4	Cloud, Edge & Fog Computing with IoT
5	Web of Things
6	Research Methods II
Interdisciplinary Courses	
1	Data Analytics with IoT
2	Security & Privacy in Wireless Internet of Things
Electives	
1	Introduction to Industrial IoT
2	IoT for Health Care
3	Semantic Web
4	Software Defined Networking
5	Sensors, Actuators & Signal Processing
6	Smart Irrigation

M.Tech. (Robotics)	
S.No	Discipline Course
1	Research Methods I
2	Robotics: Analysis & Systems
3	Drives & Control Systems for Automation
4	Sensors Applications in Robotics
5	Robotic Engineering Applications
6	Research Methods II
Interdisciplinary Courses	
1	Analytics in IoT
2	Applied Machine Learning

M.Tech. (Product Design)	
S.No	Discipline Course
1	Research Methods I
2	Product Design
3	Design Engineering
4	Advanced Machine Design
5	Design for Manufacture
6	Research Methods II
Interdisciplinary Courses	
1	Artificial Intelligence
2	Embedded Systems Design
Electives	
1	Mechanisms Design
2	Industrial Design
3	Mobility & Vehicle Design
4	Finite Element Methods
5	Collaborative Design
6	Computer Aided Engineering
7	Advanced Mechanics of Solids
8	Theory of Vibration
9	Digital Imaging & 3D Printing
10	Design of Experiment

M.Tech. (Machine Learning)	
S.No	Discipline Course
1	Research Methods I
2	Applied Machine Learning
3	Natural Language Processing & Cognitive Computing
4	Deep Learning
5	Reinforcement Learning
6	Research Methods II
Interdisciplinary Courses	
1	Recommender System Using Machine Learning
2	Computational Intelligence
Electives	
1	Algorithmic Complexity
2	Computational Aspects of Robotics
3	Computational Genomics
4	Image Processing & Detecting Anomalies
5	Pattern Recognition & Computer Vision
6	Real Time Intelligent Systems

Electives	
1	Advances in Robotics
2	Bio-Robotics
3	Finite Element Methods
4	Automation Manufacturing
5	Computer Aided Engineering
6	Embedded Systems
7	Automatic Control Systems
8	Digital Image Processing
9	Human Computer Interaction
10	Robotics Science & Systems

# Faculty Profiles



# Faculty Profiles

## Civil Engineering



**Ms. Manisha G**  
M.Tech.

**Research Interests:** Soil Structure and Soil Pollutant Interaction, ground improvement techniques.



**Mr. I.V. Sarma**  
M.Tech.

**Research Interests:** Rock Slope Stability and Design of underground Structures.



**Ms. Priya S. Natesh**  
M.Tech.

**Research Interests:** Steel Structures under Dynamic Loading, Composite Structures and Composite Structural members under extreme Thermal conditions.



**Dr. M. Srinivas Reddy**  
MBA, Ph.D., Director, IcfaiTech

**Research Interests:** Thermal Performance of Building Envelope and Materials.



**Mr. Sarit Chanda**  
M.Tech.

**Research Interests:** Active and Passive Control of Structures, Seismology and Dynamics of Structures.



## Computer Science & Engineering



**Dr. R. Balamurali**  
M.Tech., Ph.D.

**Research Interests:** Energy Efficiency in Wireless Sensor Networks, Wireless Body Area Networks, IoT and Deep Learning.



**Mr. Brahmanaidu Kakarla**  
M.Tech.

**Research Interests:** Artificial Intelligence, Data Analytics and Information Retrieval Systems.



**Dr. B. Deevena Raju**  
M.Tech., Ph.D.

**Research Interests:** Big Data Systems, Image Processing and Algorithms.



**Mr. Madhu Bandari**  
M.Tech.

**Research Interests:** Computer Networks and Cyber Security.



**Dr. P. Pavan Kumar**  
M.Tech., Ph.D.

**Research Interests:** Real Time Systems, Distributed Computing, High Performance Computing.



**Dr. R. Radha**  
M.Tech., Ph.D.

**Research Interests:** Mobile adhoc Networks, Internet of Things and Big data Analytics.



**Ms. P. Rohini**  
M.Tech.

**Research Interests:** Data Mining, Image Retrieval and Information Security.



**Dr. Sachi Nandan Mohanty**  
MCA, M.Tech., Ph.D.

**Research Interests:** Data mining, Big Data Analysis, Cognitive Science, Fuzzy Decision Making, Brain-Computer Interface, Cognition, and Computational Intelligence.



**Dr. Sandeep Kumar Panda**  
M.Tech., Ph.D.

**Research Interests:** Web Engineering, Software Engineering, Cloud Computing, Fog Computing and IoT.



**Ms. A.R. Sathya**  
ME

**Research Interests:** Database Management Systems, Software Engineering and Cloud Computing.



**Dr. Sayaji Hande**  
M.Stat, MS, Ph.D.

**Research Interests:** Analytics / Algorithmic side of software industry.



**Dr. Seetharamulu Banoth**  
M.Tech., Ph.D.

**Research Interests:** Automation Using ML, Cloud Security and Cognitive Computing.

# Faculty Profiles

## Computer Science & Engineering



**Dr. Shanta Pendkar**  
M.Sc., Ph.D.

**Research Interests:** Computing in Bioinformatics.



**Ms. Shubhangi V. Urkude**  
M.Tech.

**Research Interests:** Big Data and Data Visualization.



**Ms. Sirisha Potluri**  
MCA, M.Tech.

**Research Interests:** Cloud Computing.



**Dr. S.Vairachilai**  
MCA, Ph.D.

**Research Interests:** Recommender System, Social Network Analysis.



**Mr. K.Vara Prasad Rao**  
M.Tech.

**Research Interests:** Software Defined Networks, Virtual Networks and Information Security.





# Faculty Profiles

## Electronics & Communication Engineering



**Mr. P. Chandrasekar**  
ME

**Research Interests:** Artificial Intelligence in Embedded Application and Electronics System Design.



**Mr. D.V. Nair**  
M.Tech.

**Research Interests:** Robust Controls and Stability Analysis of Power Systems.



**Ms. Harika Devi Kotha**  
M.Tech.

**Research Interests:** Internet of Things, Machine Learning



**Mr. K. Kishore Kumar**  
M.Tech.

**Research Interests:** Image Processing, Wireless Communication and VLSI.



**Mr. Ranganadh Narayanam**  
MBA, MS

**Research Interests:** Signal & Image Processing Software and Hardware Design and their specific Applications in Neuroscience.



**Mr. T. Narasimha Murthy**  
M.Tech.

**Research Interests:** Reconfigurable Antennas.



**Dr. B. Naresh Kumar Reddy**  
M.Tech., Ph.D.

**Research Interests:** VLSI, Embedded Systems, on Chip Multiprocessors and Reconfigurable Systems.



**Mr. Syed Shakeel Hashmi**  
ME

**Research Interests:** Wireless Communication, Heterogeneous Wireless Networks and Signal Processing.



**Dr. G. Sucharitha**  
M.Tech., Ph.D.

**Research Interests:** Image Processing, Signal Processing and Digital Electronics.



**Dr. H. Sudheer**  
M.Tech., Ph.D.

**Research Interests:** Neural Networks and Fuzzy Logic Applications in Power Electronics Drives.



# Faculty Profiles

## Mechatronics Engineering



**Dr. Appala Tharakeshwar**  
M.Tech., Ph.D.

**Research Interests:** Kinematics, Dynamics, Synthesis of Mechanisms, Mechanisms Design, Robotics and Mechanisms for Rural and Agriculture Development.



**Dr. Barla Madhavi**  
ME, Ph.D.

**Research Interests:** Design and Manufacturing and Hybrid Welding (Laser Welding + FSW) for advanced high strength steels.



**Dr. Manmadhachary Aiamunoori**  
ME, Ph.D.

**Research Interests:** Additive Manufacturing, Bio-Manufacturing, Computer Aided Geometric Modelling & Analysis and Customized Prosthesis and Implant Design & Manufacturing.



**Ms. Priyanka Chatteraj**  
MBA, M.Tech.

**Research Interests:** Unconventional Machining Process like EDM, Ultrasonic Machining.



**Dr. Ashok Kumar Dewangan**  
M.Tech., Ph.D.

**Research Interests:** Boiling and Condensation of Refrigerants, Transfer Processes in Microchannels, and Pulsating Heat Pipe for Hybrid Vehicle Applications.



**Dr. Chandrashekhar A**  
MBA, M.Tech., Ph.D.

**Research Interests:** Robotics, Automation, Mechatronics, Neural Networks and Fuzzy Logic.



**Dr. M.L. Pavan Kishore**  
ME, Ph.D.

**Research Interests:** Computational Fluid dynamics, Composite materials, Computer Aided Design, Computer Aided Engineering, Optimization techniques



**Mr. D.V. Raghunatha Reddy**  
M.Tech.

**Research Interests:** Refrigeration system Simulation, Neural Networks, Fuzzy Logic.



**Mr. Avinash Malladi**  
ME

**Research Interests:** Additive Manufacturing-3D Printing in Bio printing.



**Dr. T Govardhan**  
M.Tech., Ph.D.

**Research Interests:** Vibration based condition monitoring of Machinery, Control of Dynamic Systems.



**Dr. Pravat Ranjan Pati**  
M.Tech., Ph.D.

**Research Interests:** Plasma Spray Coatings, Polymer Composites, Tribology, Surface Engineering and Thermal science.



**Mr. Shaik Himam Saheb**  
M.Tech.

**Research Interests:** Parallel Manipulators and Vehicle Dynamics and Control.

# Faculty Profiles

## Mechatronics Engineering



**Dr. Srinivasa Rao Tadivaka**  
M.Tech., Ph.D.

**Research Interests:** Friction stir welding and Additive manufacturing



**Dr. G. Suresh Kumar**  
ME, Ph.D.

**Research Interests:** Gasification Technologies, CO<sub>2</sub> Capture, Computational Fluid Dynamics, Manufacturing Systems and Artificial Intelligence.



**Dr. Syed Quadir Moinuddin**  
ME, Ph.D.

**Research Interests:** Metal Additive Manufacturing, Advanced Materials Joining Methods, Arc Physics, Welding Metallurgy Advanced Manufacturing.



**Mr. Chittamsetty Venugopal**  
M.Tech.

**Research Interests:** Composite materials and nano refrigerants.



**Dr. Vivekananda Kukkala**  
M.Tech., Ph.D.

**Research Interests:** Ultrasonic Vibration Assisted Manufacturing Process, Extrusion Process, LASER cutting/welding Process, Wire Cut EDM Process, Optimization Techniques.



# Faculty Profiles

## English



**Dr. Loreina Pagag**  
MA, Ph.D.

**Research Interests:** Linguistics, Phonetics and Phonology, Psycholinguistics, Cognitive Science, English Literature and Language Pedagogy.



**Dr. Swathi Mulinti**  
MA, Ph.D.

**Research Interests:** Pedagogy and Material Production



## Mathematics



**Dr. Anjana Matta**  
M.Tech., Ph.D.

**Research Interests:** Computational Fluid Dynamics, Convection in Porous Media, Hydrodynamic Stability.



**Dr. Jyotiranjana Nayak**  
M.Sc., M.Phil., Ph.D.

**Research Interests:** Non Convex Programming, Optimization Theory and Fuzzy sets.



**Mr. P. Ramana Vijaya Kumar**  
M.Sc., M.Phil.

**Research Interests:** Algebra, Fuzzy Logic, Soft Computing.



**Dr. S. Srinivas Rau**  
M.Sc., M.Phil., Ph.D.

**Research Interests:** Analytic Number Theory and Mathematical Physics



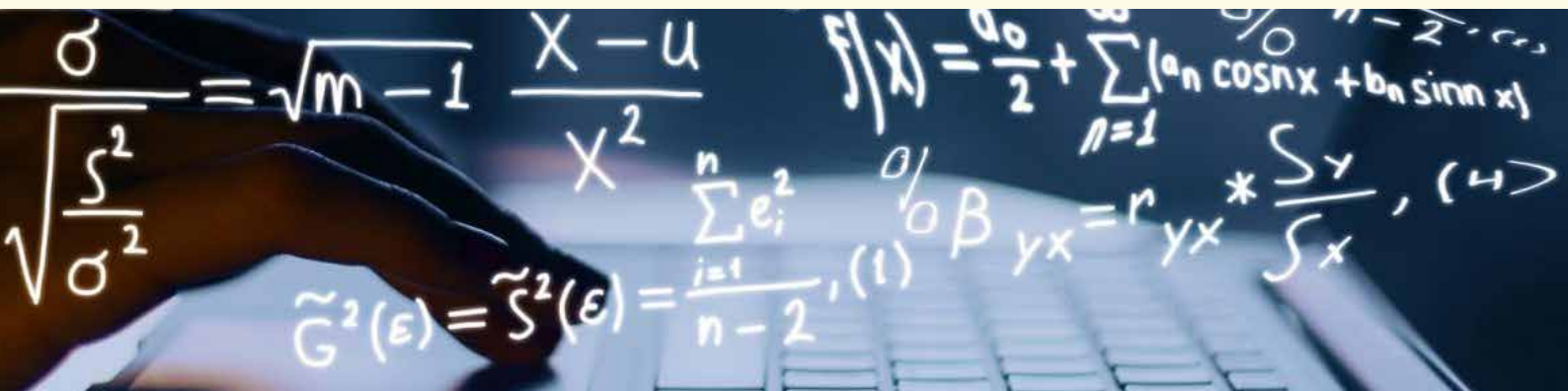
**Dr. DPRV Subba Rao**  
M.Sc., M.Phil., Ph.D.

**Research Interests:** Algebra, Generalized Inverses of Matrices over special rings.



**Dr. G. Sudhaamsh Mohan Reddy**  
M.Sc., Ph.D.

**Research Interests:** Number Theory and Applied Mathematics.



# Faculty Profiles

## Physical Sciences



**Dr. Gouri Sankhar Brahma**  
M.Sc., M.Phil., Ph.D.

**Research Interests:** Synthesis, Characterization and Reactivity study of some Novel Transition Metal Complexes.



**Dr. Renu Rani**  
M.Sc., Ph.D.

**Research Interests:** Synthetic Organic Chemistry and Coordination Chemistry.



**Dr. V. Srilalitha**  
M.Sc., M.Phil., Ph.D.

**Research Interests:** Green Chemistry, Environmental Pollution studies, Electrochemical, Spectroscopic Studies and Analytical applications of complexes of Hydrazones



**Dr. Elizabeth Zacharias**  
M.Sc., M.Phil., Ph.D.

**Research Interests:** Experimental Solid State Physics.



**Dr. Ch. Leela**  
M.Sc., Ph.D.

**Research Interests:** Laser Matter Interaction, Imaging of Laser induced Shock Waves from Materials, Time and Spatially Resolved Spectral Studies, Laser Ablation Propulsion, Filamentation, Acoustic and Radio Frequency Detection of Shock Waves.



**Dr. Mahendra Shinde**  
M.Sc., Ph.D.

**Research Interests:** Pattern formation in the Dynamics of Particulate Systems and Modelling and Advanced Simulation Techniques for Non-cohesive and Cohesive Granular Media.



**Dr. T. Shreecharan**  
M.Sc., Ph.D.

**Research Interests:** Mathematical Physics and Quantum Optics.



**Dr. S. Sree Ranjani**  
M.Sc., Ph.D.

**Research Interests:** Applications of Quantum Mechanics, Sturm-liouville Theory and Soliton Dynamics.



## Academic Calendar for Integrated First Degree Programs 2020-2021

Activity	Date
Internship - II Starts (I Semester)	01 July, 2020 (Wed)
Reporting for admission by freshers	15 July, 2020 (Wed)
Immersion program for freshers	16 (Wed) – 31 (Fri) July, 2020
Registration for all students	01 Aug, 2020 (Sat)
Classwork begins	03 Aug, 2020 (Mon)
Late registration	08 Aug, 2020 (Sat)
Substitution of courses	08 Aug, 2020 (Sat)
Last day for withdrawal from courses	01 Oct, 2020 (Thu)
Cultural festival - Icknighted	07 (Sat) - 08 (Sun) Nov, 2020
Comprehensive examinations Begin	01 Dec, 2020 (Tue)
Comprehensive examinations End	15 Dec, 2020 (Tue)
First semester Ends	15 Dec, 2020 (Tue)
Internship - II Ends (I Semester)	15 Dec, 2020 (Tue)
<b>Winter Break</b>	<b>16 Dec 2020 to 1 Jan 2021</b>
Second Semester Begins	02 Jan, 2021 (Sat)
Registration for all students	02 Jan, 2021 (Sat)
Classwork Begins	04 Jan, 2021 (Mon)
Internship - II Starts (II Semester)	04 Jan, 2021 (Mon)
Late registration	09 Jan, 2021 (Sat)
Substitution of courses	09 Jan, 2021 (Sat)
Academic festival - Impulse	27(Sat)-28(Sun) Feb, 2021
Last day of withdrawal from courses	01 Mar, 2021 (Mon)
Sports meet - Icatcholon	25(Thu)-28(Sun) Mar, 2021
Comprehensive examinations Begin	03 May, 2021 (Mon)
Comprehensive examinations End	15 May, 2021 (Sat)
Second semester ends	15 May, 2021 (Sat)
Internship Program I Starts	17 May, 2021 (Mon)
Internship Program II Ends (II Semester)	15 Jun, 2021 (Tue)
Internship Program I Ends	17 July, 2021 (Sat)



## Executive Body of the University

Chancellor	<p><b>Dr. C Rangarajan</b></p> <ul style="list-style-type: none"> <li>• Former Chairman of Economic Advisory Council to the Prime Minister</li> <li>• Former Governor, Reserve Bank of India</li> <li>• Former Member of the Rajya Sabha</li> <li>• Former Chairman of the National Statistical Commission</li> </ul>
Vice Chancellor	<b>Dr. J Mahender Reddy</b>
Registrar	<b>Dr. S Vijayalakshmi</b>
Eminent academicians as nominated by the Chancellor	<p><b>Dr. Abad Ahmad</b> President, Aga Khan Foundation, Former Pro-Vice Chancellor, Delhi University</p> <p><b>Dr. R Natarajan</b> Former Chairman, All India Council for Technical Education, Former Director, IIT Madras.</p> <p><b>Dr. T Tirupati Rao,</b> Former Vice Chancellor, Osmania University</p> <p><b>Dr. S Raghunath,</b> Dean Administration, IIM, Bangalore</p>
Directors / Heads of Faculties	<p><b>Dr. S Venkata Sessaiah,</b> ICFAI Business School</p> <p><b>Dr. M Srinivasa Reddy,</b> IcfaiTech</p> <p><b>Dr. A V Narsimha Rao,</b> ICFAI Law School</p> <p><b>Prof. V V L Narasimham,</b> ICFAI School of Architecture</p>





**IcfaiTech**

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