

**B.Tech.**  
**B.Sc.**  
**BCA**

IcfaiTech, Hyderabad





## N J Yasaswy

(1950-2011)

Mr. N. J. Yasaswy (1950-2011), the enigmatic founder of ICFAI Group of Educational Institutions envisioned to empower citizen through world-class education, paving the path for the establishment of the first ICFAI institute in 1985. The Institute announced its arrival in the Indian education fora by launching high end, innovative professional program that was first-of-its-kind in India, aimed at equipping students and working professionals with cutting-edge knowledge in contemporary areas.

Mr. Yasaswy, the 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 Associates Private 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 of 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 35 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 arena 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, 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 etc. 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



# **ICFAI** Foundation for Higher Education

(Deemed-to-be University under Section 3 of the UGC Act, 1956)

**Category I Autonomous Institution • Accredited by NAAC with 'A++' Grade**

## **The ICFAI Foundation for Higher Education**

(A Deemed to be University under Section 3 of the UGC Act, 1956)



**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 & canteen and faculty accommodation.**



IFHE received an award of recognition from NASSCOM for the fastest completion of Future Tech Courses by the students, among all the institutions in Telangana.



## Executive Body of the University

Chancellor	<b>Dr. C Rangarajan</b> Former Chairman of Economic Advisory Council to the Prime Minister Former Governor, Reserve Bank of India Former Member of the Rajya Sabha Former Chairman of the National Statistical Commission
Vice Chancellor	<b>Dr. L S Ganesh</b>
Registrar	<b>Dr. S Vijayalakshmi</b>
Eminent academicians as nominated by the Chancellor	<b>Prof. R. P. Kaushik</b> , Ambassador of India Turkmenistan, Professor (Retired) at Jawaharlal Nehru University, Delhi. <b>Dr. T Tirupati Rao</b> , Former Vice Chancellor, Osmania University <b>Prof. V. N. Rajasekharan Pillai</b> , Vice Chancellor, Somaiya Vidyavihar University and Provost, Somaiya Vidyavihar, Mumbai. Also, Prof. Pillai concurrently serves as the Chancellor of ICFAI University, Tripura. <b>Prof. Kavil Ramachandran</b> , Professor and Executive Director, Thomas Schmidheiny Centre for Family Enterprise at Indian School of Business, Hyderabad. <b>Prof. S. Kishore Kumar</b> , Member, Board of Governors, IIT Madras, Technical Advisor, NDRF, Institute of Engineering, Bangalore. <b>Prof. S. Raghunath</b> , Professor of Corporate Strategy and Policy and Dean (Admin) - Indian Institute of Management (IIM), Bangalore.
Directors / Heads of Schools	<b>Dr. K S Venugopal Rao</b> - Director, ICFAI Business School <b>Dr. K L Narayana</b> - Director, IcfaiTech & ICFAI School of Architecture <b>Dr. P Ravisekhara Raju</b> - Director, ICFAI Law School <b>Dr. C S Shylajan</b> - Director, ICFAI School of Social Sciences



## Schools of Study

IcfaiTech  
(Faculty of Science and  
Technology)

**B.Tech**

**B.Sc**  
(Mathematics)

**B.Sc**  
(Physics)

**B.Sc**  
(Data Analytics)

**B.Sc**  
(Computer Science)

**BCA**

**M.Sc**

**Ph.D**

ICFAI Business School  
(IBS)

**BBA**

**MBA**

**Exe. MBA**

**Ph.D.**

ICFAI Law School  
(Faculty of Law)

**BBA-LLB (Hons.)**

**BA-LLB (Hons.)**

**BAJ-LLB (Hons.)**

**LLM**

**Ph.D.**

ICFAI School of Architecture  
(Faculty of Architecture)

**B.Arch.**

ICFAI School of Social Sciences

**B.Com**

**B.Sc (Psychology)**

**BA (Economics)**

**MA (Economics)**

**Ph.D.**

ICFAI Online  
(Online & Distance Programs)

**BBA**

**MBA**

# Rankings of IcfaiTech

Rank  
**7**

**Emerging Engineering (Pvt) Colleges**  
-India Today Best Colleges in India 2024

Rank  
**1**

**List of best engineering colleges in Hyderabad**  
-Indian Institutional Ranking Frame Work (IIRF)

Rank  
**5**

**Category of Eminence**  
-GHRDC Engg Colleges  
CSR - GHRDC, 2023

Rank  
**3**

**State of Telangana**  
-GHRDC Engg Colleges  
CSR - GHRDC, 2023

Rank  
**8**

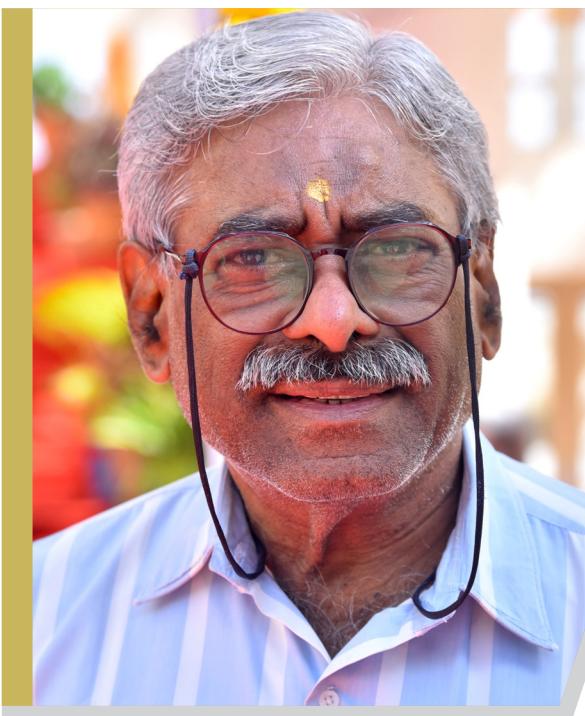
**Southern Region**  
-GHRDC Engg Colleges  
CSR - GHRDC, 2023

Rank  
**AAA+**

**India's Best Engineering College**  
-Careers 360







## Message from the Vice Chancellor

### L. S. Ganesh

Vice Chancellor,  
ICFAI Foundation for Higher Education.

Greetings!

I am delighted to warmly welcome you to the ICFAI Foundation for Higher Education (IFHE), a Deemed-to-be University established under Section 3 of the UGC Act, 1956.

IFHE is a beacon of academic excellence in Telangana state, accredited with an 'A++' grade by NAAC. Our steadfast dedication to upholding global standards in both teaching and research distinguishes us as a leading premier educational institution.

We offer a diverse array of programs, including BCA, B.Sc, B.Tech, B.Arch, M.Tech, M.Sc., BBA, BA (Economics), BBA-LLB (Hons), BA-LLB (Hons), LLM, MBA, and Ph.D., attracting talented students from across India, making our campus a vibrant reflection of the nation's rich cultural tapestry. Our thriving community comprises over 9,000 students and nearly 375 faculty members, all committed to fostering an environment of academic rigor and innovation.

We aim to develop professionals who excel in their respective fields and demonstrate the capability to create and implement cutting-edge scientific and technological solutions. We aim to set new benchmarks in operational excellence and contribute meaningfully to societal advancement.

The strength of our programs is underpinned by these five essential elements:

- Development of a relevant curriculum that includes soft skills and an Internship Program.
- A student and learning-centered teaching.
- Continuous assessment and feedback process.
- A strong focus on research driven by our dedicated faculty.
- Fostering strong alliances with industry leaders and international institutions.

Our University seamlessly integrates academic endeavours with co-curricular, extracurricular, and social activities. This holistic approach nurtures our students into well-rounded individuals who excel academically and are socially aware, making meaningful contributions to society.



## Message from the Director, IcfaiTech

**K.L. Narayana**

Director, IcfaiTech

Dear Prospective Students,

I am pleased to welcome you to IcfaiTech (Faculty of Science and Technology), one of the renowned schools of the ICFAI Foundation for Higher Education (IFHE). We aim at IcfaiTech to foster comprehensive educational development, producing graduates and researchers who are critical thinkers and societal innovators. From your first degree to advanced levels, we provide the flexibility to shape your academic journey with a wide array of elective courses.

Our educational approach includes dynamic teaching methods, a cutting-edge curriculum, engaging workshops, and practical internships to expand your intellectual and global perspectives. A hallmark of IcfaiTech is our robust Internship Program, designed to give you hands-on experience and foster an innovative mindset, preparing you for the professional world. Our dedicated faculty and industry mentors will closely monitor and evaluate your progress throughout this program.

To ensure holistic development, our curriculum integrates essential courses such as Principles of Economics, Principles of Management, Dynamics of Social Change, and Introduction to Psychology. This integrated approach distinguishes IcfaiTech, earning respect from employers, educators, and professional institutions.

I warmly invite all prospective students to join IcfaiTech Programs and become pioneers in technological advancement.

# Collaborations



In order to promote strong industry and academia partnership, IcfaiTech is associated with various Multinational and Indian companies listed below:

- |  |   |  |
|--|---|--|
| <ul style="list-style-type: none"><li>• Ahex Technologies Private Limited</li><li>• Blockfortrust Pvt Ltd</li><li>• Codecrux</li><li>• Dishaam Solutions</li><li>• DiyLabs</li><li>• EOS InfoTech IT Solutions</li><li>• eProSoft</li><li>• GHMEV</li><li>• Isthara Parks Pvt. Ltd.</li><li>• MSER Ventures</li><li>• Outshade Digital Media Pvt Ltd</li><li>• ParkOye</li><li>• PayMatrix</li><li>• Poker Launcher</li><li>• Qitech</li><li>• Sixpep Technovations Pvt Ltd.</li></ul> | <ul style="list-style-type: none"><li>• Your Mentor</li><li>• Cognoshoe Technologies (OPC) Pvt. Ltd.</li><li>• Hostel Owner</li><li>• TIE - Hyderabad</li><li>• ADGrid Digital Innovations Private Limited</li><li>• Erocampus Auitaine</li><li>• DEEPGRID Data Center Pvt. Ltd.</li><li>• SMS Grid IT Solutions Pvt. Ltd.</li><li>• Joraum Solutions Pvt Ltd.</li><li>• Smaat India Private Limited</li><li>• Blessed IT Solutions</li><li>• Rakshak Foundation</li><li>• SIDART - Society of Integrated Development Activities, Research &amp; Training</li></ul> | <ul style="list-style-type: none"><li>• GBCI</li><li>• SoftSpin Technologies Pvt. Ltd.</li><li>• AES Services</li><li>• VSD Enterprises</li><li>• ING Advertise</li><li>• Politecnico di milano</li><li>• Software Development Center - The University of Danang</li><li>• SIMS GBR Mircea Pakay &amp; Budescu IOAN</li><li>• Invest Cross Capital LLC</li><li>• New mark</li><li>• Airport Authority of India</li><li>• Talentfarm.ai</li></ul> |
|--|---|--|

# Infrastructure at IcfaiTech

## Academic Infrastructure

**IFHE boasts of a scenic campus with smart board classrooms, Learning Resource Center, library facilities, e-resources, well-equipped Laboratories, Computing Resource Center, hostels, sports and recreational facilities.**

### **1. Interactive Smart board/electronic white board class rooms**

The University is equipped with interactive smart boards in place of chalkboards and paper-based lessons do not connect with students in the present world. With the computer/laptop connected to the Internet, the faculty can access information around the world in the form of images/videos related to their courses. This technology also encourages active learning in students. Also, students take more notes and their active participation enables them to participate in the brainstorming and problem-solving sessions in the classroom. Multimedia content can also be shared with the students to keep them engaged.

### **2. Laptops**

All the B.Tech. students should possess laptops. The purpose of having laptops is to solve programming related problems in the classroom which also takes care of laboratory related activities.

### **3. Learning Resource Center (LRC)**

The University has a central library 'Sri N J Yasaswy Memorial Library', named after the founder of ICFAI Group. The University also has two more libraries attached to the IcfaiTech (Faculty of Science & Technology) and the Faculty of Law. The three libraries are fully computerized with integrated library management software viz., Libsuite. The spacious central library is spread over three floors, and has a carpet area of 45,000 sq.ft. and is centrally air conditioned. It has a seating capacity of 700. The two libraries at Faculty of Science and Technology and Faculty of Law have a spacious carpet area. The library staff is professionally qualified and experienced. They maintain the library efficiently, catering to the needs of the users. 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, NPTEL & SWAYAM etc. These databases facilitate the research activities of students and faculty members.

### **4. Library Holdings**

The Central Library has a diverse collection of books, and national/international periodicals related to all functional areas of management, economics, science & technology, law, architecture, and general books. All the library activities are computerized with the help of Libsuite, the integrated library management software. The library documents are classified according to the Dewey decimal classification system. An online catalogue is maintained. This helps the students, faculty and staff to trace books easily. All the documents are bar-coded and bar-coded identity cards are issued to the users (students, faculty & staff) for borrowing the documents.

The library also subscribes to several online databases such as EBSCO, Emerald, Science Direct, and ProQuest, etc. To enable the users to access these databases as well as the library catalogue (WebOPAC) through the campus intranet. Photocopying facilities are also available within the library premises.

Research related software like IBM SPSS & SAS are made available to the students, scholars and faculty members. Research related books, monographs, and dissertations/theses are housed in the reference section. The latest books and revised editions in the related fields are procured every month keeping in view future requirements.

The library has a holding of 1,03,351 books and 23,900 e-books. 3,200 CDs/DVDs and 7,873 other holdings. It has subscribed to 53 printed international journals, 123 printed Indian journals, and 28,560 online international journals. The library has also subscribed to 18 printed international magazines and 101 printed national magazines..

### **5. E-resources**

It has 26 Online Databases (E-resources) that includes J-Gate Engineering; IEEE ASPP+POP; Springer E-Journals; EBSCO (Business Source Complete); EBSCO (Econlit); EBSCO E-Books Business Collection; Emerald Management e-Journal Portfolio; Marketline; ProQuest; JSTOR; Capitaline Plus; Cabell's Directories; CMIE (Prowess, Economic Outlook, Capex, Industry Outlook); Prime Database; Science Direct; Scopus; Web of Science; EPWRF Datasets; SCC Online (FOL); Lexis Nexis (FOL) and Manupatra Online (FOL)..

# Laboratory Infrastructure

## Civil Engineering laboratories

The State-of-the-Art Laboratories are special features of the department that endow its students with advanced technical knowledge. The Civil Engineering department has the following state-of-the-art laboratories:

1. Engineering Graphics
2. Surveying
3. Mechanics of solids
4. Fluid Mechanics
5. Hydraulics & Hydraulic Machines
6. Geotechnical Engineering
7. Transportation Engineering
8. Building Materials & Concrete Technology
9. Building Drawing using AutoCAD
10. Design of Concrete Structures
11. Finite Element Analysis using ANSYS

## Laboratories of B.Tech.-Computer Science & Engineering, B.Tech.-Artificial Intelligence & Data Science, B.Tech.-Artificial Intelligence and Machine Learning and B.Tech.-Artificial Intelligence courses

Computer Science & Engineering and Artificial Intelligence & Data Science departments are equipped with state-of-the-art academics and research laboratories. The academic laboratories are an important source of imparting a solid foundation on various core and fundamental courses like Computer Programming, Data Structures, Operating Systems, Computer Networks, Databases, Artificial Intelligence, Machine Learning, Internet of Things(IoT), Blockchain Technology, Data Visualization, Deep Learning and Natural Language Processing (NLP), Advanced courses like Cyber Security, Federated Learning, Human Robot Interaction, Clinical Decision Support system, Large Language Models (LLMs), Generative Adversarial Networks, Responsible AI, and Metaverse. The departments also ensure to provide facility to carry out academic/research projects so that students become industry ready. Some of the laboratories are connected to self-learning facilities like NPTEL, SWAYAM and Digital libraries.

CSE and AI& DS departments have four labs equipped with smart boards, Projector and a high-speed Internet access (100 MBPS) with UPS backup. Features that make us stand out are:

### 1. State-of-the-Art Facilities

- Advanced Workstations: Equipped with high-performance computers, the labs ensure a smooth coding experience, debugging, and testing.
- Software Suites: From IDEs (Integrated Development Environments) to version control systems, students have access to industry-standard tools necessary for modern software development practices.
- High-speed Internet: Access to high-speed internet connectivity enables swift research, collaboration, and communication, crucial for academic success.
- Specialized Software: From industry-standard programming tools to graphic design suites and statistical analysis software, the labs support a wide array of disciplines.
- Presentation Facilities: Multimedia capabilities allow for engaging presentations, enhancing communication and presentation skills.

### 2. Security and Accessibility

- 24/7 Access: Extended access hours accommodate diverse schedules, allowing students to work at their convenience.
- Secure Environment: The laboratories are equipped with security measures to protect personal and academic information, ensuring a safe learning environment.

### 3. Support Services

- Technical Assistance: Skilled technical support staff are on hand to assist with any hardware or software issues, ensuring minimal disruption to the work.
- Training Workshops: Regular workshops and training sessions are conducted to familiarize students with new technologies and software applications.

## Computer Labs: Logic Loop Lab (LLL) & Syntax Studio Lab (SSL)

LLL and SSL labs are equipped with the latest hardware and software, which can accommodate 80 students. These labs provide the tools and technologies for problem solving, create websites, edit research articles, complete class assignments, communicate via email, conduct data analyses and access online learning resources. These workstations have the Microsoft Windows software for word processing, statistical analysis, spreadsheets, and database management. Additionally, a range of graphics and website creation software programs are available and is accessed by all students, faculty and staff members. The labs provide specialized learning areas tailored to meet the specific needs of the curriculum.



#### Major learning activities are

- **Basic Programming:** Provides an ideal environment to grasp fundamental programming concepts and syntax. They are tailored for exploring data structures, mastering Object-Oriented Programming, and exploring the algorithms using any programming language like C, C++, Java etc. This provides a solid foundation for advanced studies.
- **Web Development:** From HTML and CSS for crafting stunning interfaces to JavaScript frameworks like React and Angular for dynamic functionality, students can immerse themselves in the diverse facets of modern web technologies. Be it building responsive websites, integrating APIs, or deploying cloud-based solutions, these labs provide a platform to enhance the student's skills and stay at the forefront of digital innovation.
- **Database Development:** Equipped with robust software like MySQL, Microsoft SQL Server and MongoDB, to offer hands-on experience in designing, querying, and optimizing databases. Students learn essential skills such as schema design, data normalization, and SQL querying techniques. Ranging from exploring transaction management, implementing relational databases, or delving into NoSQL solutions, perfect environment for creation and management of robust databases for diverse applications is provided in the labs.
- **Shell, OS and Network Programming:** With access to robust tools and environments like Unix/Linux systems, students gain hands-on experience in creating efficient shell scripts, understanding OS kernel operations, and implementing network applications using sockets and protocols such as TCP/IP and UDP. Students explore the intricate relationship between command shell scripting, operating system internals, and network programming protocols.



This lab is dedicated to some programming languages and tools such as,

#### 1. Integrated Development Environments (IDEs):

- **Visual Studio Code:** A lightweight but powerful code editor with support for many programming languages and extensions.
- **Eclipse:** An open-source IDE primarily used for Java development but supports several other languages through plugins.
- **NetBeans:** Another open-source IDE primarily for Java development but supports other languages like PHP and C/C++.

#### 2. Text Editors:

- **Atom:** A hackable text editor for the 21st century, developed by GitHub.
- **Sublime Text:** A sophisticated text editor for code, markup, and prose.

#### 3. Version Control:

- **Git:** A distributed version control system widely used for source code management.

#### 4. Programming Languages and Tools:

- **Python:** A versatile and beginner-friendly programming language with a rich ecosystem of libraries and tools.

# Laboratory Infrastructure

- **R:** A programming language and software environment for statistical computing and graphics.
- **Anaconda:** A distribution of Python and R programming languages for scientific computing, data science, and machine learning tasks.
- **MySQL:** A popular open-source relational database management system (RDBMS).

## 5. Web Development:

- **Node.js:** An open-source, cross-platform JavaScript runtime environment that executes JavaScript code outside of a web browser.
- **Apache NetBeans:** An open-source integrated development environment for Java, PHP, C++, and other languages.

## 6. Graphics and Design:

- **GIMP:** A free and open-source raster graphics editor used for tasks such as photo retouching, image composition, and image authoring.

## 7. Simulation and Modeling:

- **GNU Octave:** A high-level language for numerical computations and simulation, largely compatible with MATLAB.

## 8. Virtualization:

- **VirtualBox:** A powerful x86 and AMD64/Intel64 virtualization product for enterprise as well as home use.

## 9. Office Suites and Productivity Tools:

- **LibreOffice:** A powerful office suite with a clean interface and feature-rich tools.

## 10. Miscellaneous Tools:

- **Audacity:** A free, open-source, cross-platform audio software for multi-track recording and editing.
- **Blender:** A free and open-source 3D computer graphics software toolset used for creating animated films, visual effects, art, 3D printed models, interactive 3D applications, and video games.

## System Configuration:

- **LLL** - Intel(R) Core(TM) i7-8700 CPU @3.20 GHz, 16GB RAM with Windows 11 Home Single Language. No. of Systems: 80
- **SSL** - Intel(R) Core(TM) i5-6500 CPU @3.20 GhZ , 20GB RAM with Windows 11 Home Single Language. No. of Systems: 80
- All systems are connected to Gigabit Ethernet and UPS systems with good power backup.

## Laboratory for Imagination visualization and Artificial Intelligence (LIVIA)

LIVIA lab is equipped with powerful GPUs and state-of-the-art software frameworks like Tensor Flow, PyTorch and Keras. This lab empowers students to explore the realms of Machine Learning Algorithms and Deep Neural networks. From Supervised and Un-supervised learning to Reinforcement learning, Natural Language Processing, data visualization, cloud computing, data wrangling, and data operations students delve into hands-on projects that tackle real-world data challenges. Starting from analysing complex datasets, to building predictive models, or implementing deep learning architectures, this lab provides the resources and guidance to advance the skills in this rapidly evolving field of Artificial Intelligence.

### Salient Features of LIVIA

Students benefit from exposure to a diverse array of tools essential for their academic and professional growth:

#### AI and Machine Learning:

- TensorFlow
- PyTorch

#### Cloud Computing:

- Google Colab
- AWS Free Tier

#### Data Wrangling and Operations:

- Apache Spark
- Pandas

#### Data Visualization:

- Matplotlib
- Seaborn
- Plotly
- Tableau Public

#### Miscellaneous Tools:

- Jupyter Notebook
- RapidMiner
- Docker

## System Configuration:

- No. of Systems: 80
- 12th Gen Intel(R) Core (TM)-i9-12900 2.40GHz, 64.0GB RAM with Windows 11 Pro.
- All systems are connected to Gigabit Ethernet and UPS systems with good power backup.



## Laboratory of Adaptive Resonance Theory (LART)

LART Lab, like many research groups focused on cognitive and neural theories, contributes to both theoretical advancements and practical applications in fields that benefit from adaptive and robust pattern recognition capabilities. These software tools and frameworks are instrumental in their respective fields, enabling developers and researchers to create, analyse, and deploy solutions ranging from network analysis and deep learning models to block chain applications and computer vision tasks.

- Computer Networks:** The software tools used in computer networks are wire shark, cisco packet tracer, NS-3, open flow, Mininet. By using this software's student can learn and Improving network efficiency, reliability, and security; developing new protocols.
- Deep Learning:** It involves training algorithms to learn representations of data through multiple layers of abstraction. By using Tensor Flow, PyTorch students can build and deploy machine learning-powered applications.
- Blockchain:** It's used for secure transactions, supply chain tracking, voting systems, digital identities, and more, without the need for intermediaries like banks or governments. In Block chain technologies it includes Ethereum, Hyper ledger fabric, Solidity, Ganache, truffle.
- Computer Vision:** It involves developing algorithms and systems that can automatically extract, analyze, and understand information from images or videos. Open Source Computer Vision Library, You Only Look Once are the technologies used in computer vision.

### System Configuration:

- No. of Systems: 80
- HP Z1 Tower G9(NVIDIA RTX 4000 16GB)
- Core (TM)-i9-13900K 3.0GHz, 128GB 2TB SSD+2DB HDB
- All systems are connected to Gigabit Ethernet and UPS systems with good power backup.

## Electronics and Communication Laboratories

The Department of Electronics and Communication Engineering offers a range of state-of-the-art facilities designed to support the educational and research needs of our students across various academic levels, including undergraduate, postgraduate and Ph.D. courses. Our laboratories are equipped with cutting-edge technology and equipment to provide hands-on experience and foster a deep understanding of both theoretical and practical aspects of the field.

### Key Facilities Include:

**Basic Electronics Lab:** The Basic Electronics Lab provides hands-on experience with essential electronics concepts, helping students understand and apply fundamental principles in digital electronics, laws etc.,

**Analog Electronics Lab:** Based on the Basic Electronics prerequisites, the characteristics and functionists of fundamental electronic devices and their circuital behaviour are practically studied in this lab which is equipped with latest and high end practical kits and highly precise electronic measuring instruments of various electrical parameters.

**Communication Systems Lab:** Equipped with modern communication tools and simulation software, this lab allows students to explore and innovate in areas such as wireless communications, signal processing, and network systems.

**Microprocessor and Micro-controller Lab:** Providing a hands-on learning environment with a variety of microprocessors and micro controllers, this lab supports the development of embedded systems and real-time applications.

**Digital Signal Processing Lab:** This lab is furnished with advanced DSP kits and software like MATLAB, CC Studio to help students understand and implement digital signal processing techniques in various applications.

**VLSI Design Lab:** With industry-standard EDA tools Cadence, Xilinx and hardware, this lab offers facilities for the design and testing of very-large-scale integration (VLSI) circuits, preparing students for careers in semiconductor design and manufacturing.

# Laboratory Infrastructure

**RF and Microwave Lab:** Equipped with state-of-the-art RF and microwave testing equipment, this lab enables the study of high-frequency circuit design, antenna theory, and microwave communications.

**VLSI Fabrication Lab:** The Department of Electronics and Communication Engineering has established a cutting-edge VLSI Fabrication Lab, known as the Centre for Advanced Nano Fabrication and Characterization (CANFAC). This facility will specialize in the fabrication and testing of semiconductor devices, providing students and researchers with the advanced tools necessary to explore the latest developments in semiconductor technology.

## Mechanical Engineering Laboratories

The Department of Mechanical Engineering is a dynamic hub of innovation, exploration, and excellence in engineering education and research. It always strives to stay at the forefront of technological innovation. The department offers UG course in Mechanical Engineering, PG Course in Robotics and Automation and Doctoral program in Mechanical Engineering. The well-qualified faculty members ensure understanding of fundamental concepts with a view to lay a strong foundation. Students are trained in current technologies, analytical problem solving and product design skills to be employable in the industry. The pedagogy is designed such that students are able to connect theory with applications and are motivated to apply the same in enhancing their careers. It has established a Centre of Excellence (Robotics and Advanced manufacturing) in collaboration with industry for various research and training purposes. The syllabi of UG programs offered by the department includes core subjects as well as electives under department, institute, open and industry categories. The students are working with the faculties in the field of Additive manufacturing, biomechanics, robotics, renewable energy, CFD, modern-manufacturing, along with conventional thermal engineering and machine design. Students of the department are associated with Robotics club, Smart manufacturing, and other professional bodies.

The List of Laboratories under the department are:

- 3D Printing
- CAD/CAM/CAE
- Robotics & Automation
- Digital Fabrication
- Fluid Mechanics
- Hydraulics and Hydraulic Machines
- Mechanics of Solids
- Mechatronics

- Machining Processes and Metrology
- Thermal Engineering
- Engineering Graphics
- Engineering Materials
- IC Engines
- Heat and Mass Transfer

The laboratories and experiments are designed in such a way that the creativity and analytical skills of the student are enhanced so that he/she will be able to design and develop new mechatronic systems. The laboratories are equipped with advanced facilities/equipment like CNC trainer lathe, 3D Printer, Guider, Scanner, PLC Trainer Kit, Temperature Control Panel, Belt Conveyor Panel, Traffic Light Control Panel, Sensor Module, Sensor Trainer Kit, EDM Machine, UTM, Compression testing, Profile Projector, Strain, temperature, force and vibration measurement. The laboratories are equipped with advanced software's like AutoCAD, Creo, Ansys, Flash forge, Hercus, Ansys and MATLAB-Simulink.

## English Language Laboratory

The English Language Laboratory is in use to facilitate interactive and innovative teaching and learning activities along with computer-based exercises and activities to enhance the proficiency of the language learners.

The language Laboratory uses the Blended learning method; using both traditional and computer-based instruction and learning. Students are exposed to various standard accents and authentic recorded materials using licensed software. The software used in the Laboratories helps learners in practising pronunciation, grammar exercises, listening and speaking tasks. The language Laboratories provides access to various learning platforms like British Council and Cambridge University. The objectives of the language Laboratories are: a) To facilitate self-learning, b) To facilitate complimentary learning by using blended learning techniques.

## Science Laboratories

Science Laboratories are spacious teaching laboratories where each student can perform his /her experiments individually.

## Physics Laboratory

Physics Laboratory is well equipped with all the facilities and equipment required for B.Tech./B.Sc. students to do experiments in the areas of mechanics, optics, electricity and magnetism as part of their Curriculum. The physics laboratories has experimental facilities for experiments



like Compound Pendulum, Moment of Inertia of Flywheel, parallelogram law of forces, Dispersive power of the material of a prism, Diffraction Grating, Magnetic Field along the Axis of Current-Carrying Coil by Stewart and Gees Method, Hall effect, Planck's constant.

### **Chemistry Laboratory**

Chemistry Laboratory is well equipped with all the facilities and equipment required for B.Tech./B.Sc. students to do experiments in the areas of conventional titrimetry, colorimetry, conductometry and potentiometry.

Chemistry Laboratory has experimental facility for experiments like full-fledged volumetric analysis setup, digital pH meters, Conductivity meters, Colorimeters, Viscometers, UV-visible spectrophotometer, Double distillation unit, Melting point Apparatus, BOD and COD analyzer.



# Academic Features of IcfaiTech



## Interdisciplinary and broad-based Curriculum

Interdisciplinary and broad-based Curriculum

IcfaiTech follows an integrated and broad-based curriculum emphasizing an interdisciplinary approach. At IcfaiTech choice-based credit system is in practice. The curriculum is updated periodically to meet the requirements of industry and academia. The courses are broadly grouped into various categories as Analysis Oriented Courses (AOC), Discipline Courses (DC), and Humanities and Social Sciences (HSS). These broad spectra of courses enable students to have a strong foundation and training in inter-disciplinary areas.

## Holistic Development

This broad-based curriculum encompasses the values of NEP (2020) with multiple entry and exit level and implements the concept of Academic Banking Credit (ABC). It ensures a holistic development of students. The aim of the curriculum designed so is not restricted to gaining knowledge but learning 21st-century skills and becoming life-long learners. 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.

## Faculty Supervised Internship Program

IcfaiTech offers a unique faculty-supervised internship program. 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 a semester system with continuous and Internal Evaluation. The educational programs are modular, flexible, and interdisciplinary.

IcfaiTech operates educational programs at three tiers of education, namely, the first-degree programs, higher degree programs and doctoral programs.

All four year and three year first degree programs are designed with a broad-based curriculum. A broad-based curriculum ensures a certain number of common courses to all the students who are pursuing different degree programs in Engineering and Science.

The major advantage of this commonality among all students provides easy professional linkage, communication and collaboration, thereby ensuring the best possible peer group learning. This broad-based curriculum is further welded in the stronger professional bond when students work as interns during the internship program or as members of a team working on time-bound research and development projects.

The 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 of IcfaiTech

The educational process at IcfaiTech is embedded with several academic flexibilities. We list below the academic flexibilities that the students are entitled to:



### 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 that are interdisciplinary and need not be the electives of their program. For example, a student of Computer Science and Engineering can choose an elective that is offered in Electronics and Communication Engineering or for that matter Data Science or Mechanical Engineering. This choice of electives is possible as long as the student has satisfied the appropriate prerequisite conditions if any for that course.

### Audit Courses

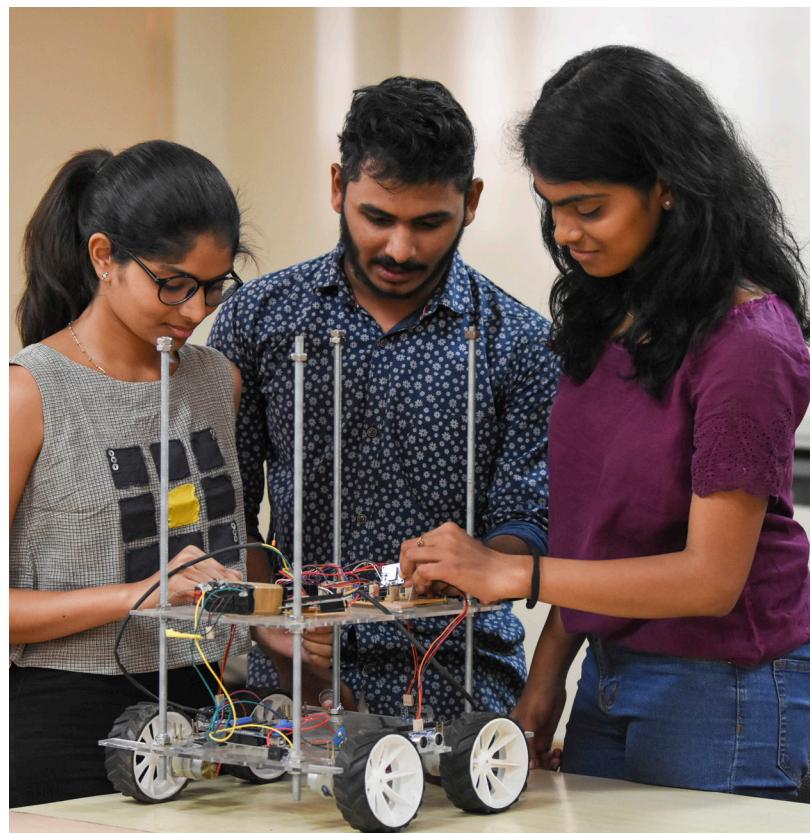
There are certain courses amongst the offering of the University which are neither part of programs nor available through electives. Any student who wishes to take such courses can take them only on an audit basis and also on payment of additional fees. The facility of taking a course on audit is principally conceived to allow a student to update his/her knowledge.

### Electives

Apart from the prescribed number of electives as part of the curriculum, IcfaiTech also allows students to register for up to two additional electives. These courses chosen can be such that it enables the student to gain additional knowledge in a specialised subject over and above the ones that he/she has chosen as electives.

### Other Flexibilities

The IcfaiTech offers more academic flexibilities like allowing the students to learn during the summer term and auditing a course to improve their knowledge. The students are encouraged to refer to the regulations for more details.



# Internship Programs

Internships are educational and career development opportunities at IcfaiTech, providing practical experience in a particular domain. They are structured, short-term, supervised assignments often focused on particular tasks or projects with defined timescales. Undergraduate students at IcfaiTech are sent on internships with intended objectives such as to gain exposure to the industrial environment, which cannot be simulated in the classroom and hence creating competent professionals for the industry, provide possible opportunities to learn, understand and sharpen the real time technical/managerial skills required at the job, exposure to the current technological developments relevant to the subject area of training, create conditions conducive to the quest for knowledge and its applicability on the job.

IcfaiTech adopts two tier internship program model, one offered after the 2nd year of B.Tech/ BCA/B.Sc. program which is of almost 2 months duration. Second internship program of 5.5 months duration is offered during the final year of the B.Tech. program. In addition, students opting for the thesis work can do the same during any one of the 7th or 8th semester of B.Tech. program, under the supervision of IcfaiTech faculty.

## Internships Abroad

**Students have done their internships in the following organisations (a partial list).**

- Blue Eye soft, USA
- Skill Banc, USA
- Techhub LLC, USA
- Watcher Digital Partner (WDP), Germany
- Internships in India
- Students have done their internships in the following organisations (a partial list).
- National Informatics Centre (NIC)
- New Mark
- Recykal
- CDK Global
- L & T
- CDK Global
- Lion Orbit
- Eficens IT
- Posidex
- Four Serv Global
- KPMG
- Modak Analytics
- Caspian Debt



#### **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 industry-relevant research areas.

#### **Benefits to the Industry**

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

#### **Benefits to the Institute**

- Faculty enrichment.
- Industry-Academia connect increases.
- An internship is supportive and complimentary to the placement activity of the Institute.
- Get access to industrial problems and thereby consulting opportunities for the faculty.

# Technology Innovation Center



**Technology Innovation Center (TIC) at IcfaiTech is offering a parking space for start-ups and Micro, Small & Medium Enterprises (MSMEs). Budding entrepreneurs having innovative ideas and seeking resources in terms of manpower and infrastructure, are mentored and assisted by faculty members for mutual benefit of the institute and the start-up. It is a platform for students of IcfaiTech to develop their corporate skills. Students are provided with ample opportunity to work on real time problems solved by both start-ups and MSMEs. The students spend the entire duration of the semester working on real time project, which replicates the actual working environment of industry. As a result, TIC enables the students to acquire knowledge on recent technologies, need of the industry and inculcate the entrepreneurship skill to establish their own start-ups.**

# Placements & Higher studies

IcfaiTech gives utmost importance to ensure that the successful graduates receive suitable placements. Over the years ICFAI and its constituents have developed a strong placement network among blue-chip companies in the manufacturing sector, engineering sector, financial services sector, information technology sector, consultancy, etc. A number of national and multinational companies specializing in product and service sectors have recruited the students of IcfaiTech through campus placements. This has been achieved through constant interaction with the industry by way of seminars, internships, research projects and on-campus and off-campus initiatives. As a part of the placement efforts, IcfaiTech placement team has been visiting a number of potential employers and consultants and apprising them of the level of knowledge and practical application skills acquired by their graduates in their respective areas of specialization. The profiles of the students seeking placement assistance are made available

to prospective employers. Placement conclaves and personality development workshops are organized as a part of the placement program. All the students are provided guidance in career planning as they progress to higher levels of the program. CRT is included in the curriculum from 2nd year onwards to enhance the employability of students. IcfaiTech believes that the entire placement exercise is a joint effort between IcfaiTech and the students. While IcfaiTech provides guidance, support and a wide network with potential employers, the students have the responsibility to put in the maximum possible efforts to obtain suitable placements. IcfaiTech also encourages and supports the efforts of the students wanting to pursue higher studies in Science, Technology and Management subjects. A number of Universities abroad and Institutes of Higher Learning in India have been offering admissions to the meritorious students of IcfaiTech.

## Reputed Companies which provide placements to IcfaiTech students (A partial list)

• Accenture	• Delta Cubes Technology	• Leoforce India Pvt. Ltd	• Talent Serve
• Altudo	• DeltaX	• Magnitude Software	• Tavant
• Amazon	• DSCI	• Medha servo	• TCS
• Anitha Dairy Products	• Edifecs	• Medplus	• Tech Mahindra
• Apps Associate	• Emicon	• MICROSOFT	• Technovert
• Astrocas Technology - ASCASD	• EPAM	• Milekal	• Techwave
• Atmecs	• ETG	• Modhak Analytics	• Tempsens Instruments
• Auro Pro	• Fincart Finvest Pvt. Ltd	• Mordor Intelligence	• TURING MINDS
• Belcan	• Finormaic	• MTX Group	• Unistring Tech Solutions
• Brane Enterprises Pvt. Ltd	• Goldman Sachs	• My capatin	• UpGrad Campus
• Byju's	• Goldstone Technologies	• Nalsoft Techologies	• Vigocare
• Capgemini	• Hexware Technologies	• NTT DATA	• Vinove Software Services
• Capital Now	• Hitachi Vantara	• NVEST	• Vistex Technologies
• Career labs	• HP	• Ojas Innovite Technologies	• Wilco source
• Choice Solutions Limited	• InfoR	• Onward Health	• Wiley Edge
• Cisco	• Infosys	• Pro Team Advisory (Bytes)	• Wipro
• Citius Techy.	• Innomatics Research Labs	• Proflics	• Zen Technologies
• Ck Birla Group of Companies (GMMECO)	• INNOVACX TECH	• Prolifics	• Alumni Speaks
• Cognizant Technologies	• Intellect Design	• Rexnord	• 12 alukmi blurbs
• CSS Corp	• Intellipaat	• RT Solutions	• Microa
• Ctrl-S	• Jaro education	• Saasken	• Blue Eye Soft
• D E Shaw	• JP Morgan Stanely	• Sagarsoft	• Zerocode HR
• Data Intensity	• Keka	• Shure Audio	• NWEMARK
• DBS Asia Hub	• Kelton	• Silicon Labs India	• OSI Digital
• Dell	• Kelton	• Smart Serve	• Recykal
	• Kanerika	• Sonata Software	
	• Legato Health Technologies	• Streebo Solutions Pvt. Ltd	

# Alumnus Speaks (Snippets)

## Chatbot as a Service: Transforming Customer Interactions

Chatbot as a Service (CaaS) is reshaping customer interactions for large enterprises, leveraging generative AI to deliver personalized experiences. The latest developments in chatbots are blurring the lines between human and machine interaction, offering businesses unprecedented opportunities to engage with customers in meaningful ways. One of the transformative developments is Generative AI which has revolutionized Conversational AI by enabling chatbots to understand and respond to human language with remarkable accuracy and sophistication. Traditional rule-based chatbots are giving way to dynamic conversational agents capable of generating human-like responses in real-time. From limited interactions, chatbots have evolved into charismatic personalities. Positive and engaging chatbots improve user experience and drive traffic to websites.

Metrics from the industry showcase the impact of generative AI on Conversational AI. Businesses employing generative AI-powered chatbots have witnessed significant improvements in customer satisfaction scores, with a reported increase of up to 30%. Additionally, average response times have decreased by approximately 40%, leading to enhanced user experiences and higher engagement levels. Further Enterprise AI initiatives are predicted to enhance productivity and creative problem-solving by 50% and up to 40% improvements in software development tasks.

Hence it is not surprising that by 2025, organizations will allocate over 40% of their core IT spending to AI-related initiatives, driving product and process innovations.



**Manish Kumar Nirala,**

Product Manager, Artificial intelligence, ABB Inc.  
Alumnus, IcfaiTech Hyderabad, (2004-2008)  
MBA, IIM-Ahmedabad  
[linkedin.com/in/manishnirala](https://www.linkedin.com/in/manishnirala)

## Path to Success

Reflecting on my college days at ICFAITECH Hyderabad from 2002 brings forth a flood of cherished memories, painting a vivid picture of a simpler time. Amidst the bustling campus life, it was the connections we formed and the camaraderie we shared during moments of need that truly enriched our experiences.

Fast forward to today, the IT landscape has matured, presenting a plethora of options in technology from AI and Cloud to digital solutions. As we stand on the precipice of a world brimming with technological wonders and engineering marvels, it's crucial to recognize our pivotal role as the vanguards of innovation. The knowledge and skills we've cultivated are the very tools that will shape the future—a future where our endeavours will not only showcase human ingenuity but also pave the way for hope and progress.

Embracing the challenges that lie ahead, we must allow our curiosity to guide us and our creativity to serve as our compass. The world eagerly awaits the emergence of our daring ideas and revolutionary solutions. It's time for the engineers of tomorrow to gear up and seize the boundless opportunities that await us. The canvas of possibilities stretches infinitely before us, offering us the chance to leave an indelible mark, to innovate, to inspire, and to reshape the world, one ingenious solution at a time. With courage and passion, we march forward, for the future is ripe for our shaping!

As budding engineers, we possess a unique vantage point to spearhead innovation and shape the trajectory of future technologies.



**Naresh Kumar Erothi,**

Vice President, Area Product Owner Data and Analytics  
JP Morgan Chase, Hyderabad  
IcfaiTech Hyderabad (2002-06)  
[enareshkumar@gmail.com](mailto:enareshkumar@gmail.com)



## Renewable Energy Integration to Grid: Challenges and Solutions

Renewable energy sources, such as wind and solar power, have gained significant traction in recent years as the world looks to transition to more sustainable energy sources. However, integrating these renewable sources into the existing grid poses several challenges that must be addressed to ensure a reliable, stable & better quality of energy supply to customers.

Till March 2024, India has installed renewable energy capacity of 18.5 gigawatts (GW) and by 2030 the capacity expected to reach 35-40GW. Today, our country ranks fourth in the world in Renewable Energy Installed Capacity. Around 40 percent of India's installed capacity comes from non-fossil fuels, which is great achievement.

One of the main challenges of integrating renewable energy into the grid is its intermittent nature & absence of grid inertia. Unlike traditional fossil fuel-based power plants, which can generate electricity around the clock, renewable sources like wind and solar power are dependent on weather conditions and can fluctuate throughout the day. This variability can pose challenges for grid operators in managing the supply and demand of electricity.

Grid inertia refers to the ability of the grid to maintain its stability and reliability in the face of fluctuations in supply and demand. Traditional power plants that rely on fossil fuels have inherently high levels of inertia, which helps to stabilize the grid by providing a stable frequency response.

Furthermore, the integration of renewable energy sources can also pose technical challenges, such as voltage and frequency fluctuations, which can impact the overall stability of the grid. Grid operators must implement advanced control systems and technologies to ensure that the grid can effectively handle the variability of renewable energy sources.

To Academician/Students:

In renewable energy integration, now a days control system & Power electronics together play vital role. Our academicians should try to focus on discussing, developing tuning efficient control models along with power electronics for Generators, turbine governor, exciter, power system stabilisers to visualise voltage & frequency behaviour. We are dependent on west/European countries for the control models. MATLAB helps in testing & visualising models.



**Sunil Kumar,**

Alumnus, (2005-2009)

Consultant Sr. Electrical Engineer (Quality & Network Analysis)

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# Alumnus Speaks (Snippets)

## Embracing Challenges: My Journey Through Academia and Research

My experience: Embarking on a journey through academia and the professional world, one quickly realizes the interconnectedness of various fields and their collective impact on our understanding of the world. My personal academic odyssey, spanning Machine Learning (ML), Neuroscience, and Natural Language Processing (NLP), exemplifies this interplay of technology and human insight. My journey through the dynamic landscape of academia began in the classrooms of ICFAI University Hyderabad, where I pursued my B.Tech in Computer Science. It was here that I first encountered the transformative power of Machine Learning (ML) and its potential to address real-world problems. My research, centered on using ML to mitigate food wastage, wasn't just an exploration of complex algorithms; it was an endeavor to harness technology for the greater social good. In today's fast-paced, tech-driven world, the boundaries between disciplines are increasingly blurred. The intersection of AI, ML, neuroscience, and other fields represents a frontier of untapped potential. It's in these intersections where groundbreaking discoveries and innovations are made - where we not only solve complex technical problems but also address deeper questions about human behavior and cognition. The journey, however, was not without its challenges.

The support from ICFAI University during this period was pivotal. The faculty played a crucial role in shaping my research ideas, providing guidance that helped navigate the complexities of my project. Their expertise was invaluable in refining my approach and methodology. Additionally, the university's provision of resources, including access to an extensive library and state-of-the-art technology, was instrumental in my research.

Equally important was the university's support outside the lab. They provided funding for attending conferences and workshops, which opened new vistas of learning and networking opportunities. These experiences were crucial in broadening my understanding of ML and its applications and allowed me to stay abreast of the latest developments in the field.



### Madhukar Dwivedi,

(Alumnus of IcfaiTech, Hyderabad (2015-2019))  
Ph.D. Candidate in Natural Language Processing (NLP), University of Amsterdam, Netherlands  
Data Scientist at ZS Associates, Pune (2022-2023)  
Gold Medalist, MS by Research in Computer Science, IIIT Hyderabad (2019-2022)  
B.Tech. Graduate, ICFAI University (2015-2019),  
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Facebook: Madhukar Dwivedi

## INTO THE BLUE

It's a great feeling with which I am writing for students of IcfaiTech Hyderabad. It is the place where I studied mechanical engineering. Apart from studies I could participate in host of activities, technical events and contests both on and off campus. It laid foundation for a successful career for me. Later on I went to study Naval Architecture & Ocean Engineering in Sweden. Back in India, I joined Titagarh Rail Systems Limited in Kolkata. We are shipbuilders and cater to both commercial and defence sectors. Right now we are building 11 vessels for the Indian Navy. Previously (as in since I joined) we have built Patrol Vessel for Indian Coast Guard and a Cargo cum Passenger Ferry for Republic of Guyana.

The general consensus is that shipbuilding industry is on rise globally. However, in India we are still lacking shipyards capable of competing with the Chinese, Japanese, Korean and nowadays even Vietnamese. The closure of ABG, Pipav and Bharti shipyards in the past has significantly hurt our capacity and capability but hopefully they can comeback with new thrust and push from GoI under make in India initiative.

In shipbuilding, the launch of a vessel signifies a pivotal transition from construction on land to floating in water, a moment that not only marks a major milestone but also reflects the collaborative efforts and expertise of the construction team. This dynamic and visually impressive phase, often celebrated with a launching ceremony, is where shipyards showcase their launching method, each tailored to the specific ship types and the yard's capabilities. Techniques range from traditional gravity-based launches to the more contemporary floating-out practices, demonstrating the adaptability and ingenuity required in maritime construction. It's important to note that launching a ship doesn't signal the project's end; rather, it's a strategic step to free up space for the next build.



**Vinayak Shukla,**

Designation: Naval Architect, Ship Design  
Company: Titagarh Rail Systems Limited, Kolkata, India  
Alumnus, Mechanical Engineering, IcfaiTech Hyderabad 2015  
Post BTech.: Master of Science in Naval Architecture & Ocean Engineering from Chalmers University of Technology-Gothenburg, Sweden  
LinkedIn: [www.linkedin.com/in/vinayakshukla1010](https://www.linkedin.com/in/vinayakshukla1010)

# Alumnus Speaks (Snippets)

## Embracing Change: Navigating the Evolving Landscape of Technology

In today's rapidly changing world, professionals across all industries are faced with the challenge of staying ahead of the curve. From technological advancements to shifting market dynamics, the pace of change can often feel overwhelming. However, for those who are willing to adapt and embrace new opportunities, the possibilities for success are endless.

As an AI and Automation Strategy Head at Rakuten Mobile Inc., I've had the privilege of witnessing firsthand the transformative power of embracing change. In my role, I've had the opportunity to work with cutting-edge technologies and innovative solutions that are reshaping the telecommunications industry. From implementing AI-driven automation systems to optimizing network performance, our team is committed to driving meaningful impact and delivering exceptional value to our customers.

One of the key lessons I've learned throughout my career is the importance of continuous learning and professional development. In today's fast-paced world, the ability to adapt and acquire new skills is essential for staying relevant and competitive. That's why I've made it a priority to stay informed about the latest trends and developments in the field of technology. By attending conferences, participating in workshops, and seeking out opportunities for growth, I've been able to stay ahead of the curve and position myself as a leader in my field.

One area that has particularly fascinated me is the intersection of AI and telecommunications. As AI technologies continue to mature, we're seeing a wealth of opportunities emerge for revolutionizing the way we operate and deliver services. For example, by leveraging machine learning algorithms, we've been able to optimize network performance, reduce downtime, and enhance the overall customer experience. These advancements have not only improved operational efficiency but have also opened up new revenue streams and business opportunities for our organization.

Together, let's embrace the future and unlock the endless possibilities that lie ahead.



**Amandeep Rana,**  
Alumnus, (2005-2009)  
Company: Rakuten Mobile Inc.  
Designation: AI & Automation Strategy Head.

## COUNTERING ROBOTIC SWARMS: INNOVATIVE SOLUTIONS TO FUTURISTIC AERIAL THREAT

The United States Department of Defence has launched the search for a "Third Offset Strategy," an approach to sustain United States military technology superiority against potential adversaries. The first two strategies were aimed at "Offsetting" the Soviet numerical advantage in conventional weapons in Europe, first with nuclear weapons and later with information enabled precision-strike weapons. Focus of the third strategy is likely to harness the value of mass, which they strongly tried to "Offset" previously.

Uninhabited and autonomous system enables them to field a large number of assets at affordable cost resulting in the future of warfare, especially the air war drifting towards the employment of swarms. They can take greater risk and therefore are low-cost and expendable, or willing to accept some attrition.

### **Understanding a Swarm.**

A swarm consists of disparate elements that coordinate and adapt their move in order to give rise to an emergent, coherent and exponential threat. Ant colonies can build structures and wage wars, however a large number of un-coordinated ants can accomplish neither. Harnessing the full potential of the robotics revolution will require building a robotic system that are able to coordinate their behaviours, both with each other and with human controllers.

Robot swarms may consist of heterogeneous agents a mixture of different types of robots working together to perform a task. Large number of uninhabited aerial vehicles forming the robot swarm have several potential advantages as given below

- (a) Combined power can be dispersed, giving the enemy more targets, forcing the adversary to expend more munitions.
- (b) Mass allows the gradual degradation of combined power as individual platforms are attired, as opposed to a sudden loss in combined power if a single, more exquisite platform is lost.
- (c) Missile batteries can be exhausted. Guns can only shoot in one direction at a time. Robotic swarms can overwhelm enemy air defence such that leakers get through, taking out the target.
- (d) Targeting a swarm is difficult due to smaller individual platform size.

**Conclusion:** Affordability, software domination, reduction in mission costs and risk reduction are some of the consummate advantages that swarm technology promises in military campaigns. Drone swarms could be engineered out of COTS components and are software dominated. These aspects would probably lead to their quick proliferation even among not-so-affluent militaries and even terrorists. Though employment of swarms technology is still a nascent phase, its future dominance is inevitable. It would be prudent to be prepared to both harness the technology is that it must be capable of adapting to changes which too are inevitable after fielding of the same. While initially, the focus would be developing technology to harness the prowess of mass, all development must be guided by well thought out document of likely employment. Moreover, the armed forces must be open to the idea of employment of robotic swarms in all dimensions and facets of warfare. To be ahead of our adversaries in military capabilities we need to think ahead and commence research to meet futuristic military challenges.



**Sangeetha Nath,**

(Alumnus, IcfaiTech Hyderabad, 2008-12)  
Major Indian Army

# Life on Campus

Despite a hectic academic schedule, students of IcfaiTech, very actively participate in co-curricular and extra-curricular activities. Highly self-motivated and capable students run several student bodies – twelve student 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 a team of 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. Thus, IcfaiTech helps students to develop their overall personalities and become leaders.

### IcfaiTech Student Clubs

- Astitva - Music Club
- Yantrikee - Technical Club
- Asana- Yoga Club
- Dansation - Dance Club
- Game Development Club
- Nexus Club
- Innozant - Entrepreneur's Club
- Paritantra - Environmental Club
- Gambol - Sports Club
- Invictus - Literature Club
- Photography Club
- Spotlit Club

# B.Tech. | BCA B.Sc | M.Tech M.Sc

## Programs



IcfaiTech offers Three and Four year first degree programs. The programs are:

### Three/four-year Programs

- BCA
- B.Sc. Computer Science
- B.Sc. Data Analytics
- B.Sc. Mathematics
- B.Sc. Physics

### Four-year Programs

- B.Tech in Artificial Intelligence
- B.Tech Artificial Intelligence and Machine Learning
- B.Tech in Artificial Intelligence and Data Science
- B.Tech in Computer Science and Engineering
- B.Tech in Electronics and Communication Engineering
- B.Tech in Mechanical Engineering





**IcfaiTech offers 2 year full-time Higher degree programs (M.Tech) with the following specialisation:**

- M. Tech. Computer Science (AI & ML)
- M.Tech. Digital Electronics and Communication System
- M.Tech. Robotics & Automation

The curriculum of all the above programs is designed as per industry requirements.

**IcfaiTech offers 2 year full-time Higher degree programs (M.Sc.) with the following specialisation:**

- M.Sc. Chemistry
- M.Sc. Physics



# Doctoral Degree Programs

IcfaiTech offers Doctoral Program in the areas of Civil Engineering, Computer Science and engineering, Electronics and Communication Engineering, Mechanical Engineering, Mechatronics, Chemistry, Physics and Chemistry both in Part-time and full-time mode. The PhD program is rigorous, multidisciplinary and broad in scope. Students are provided research training, encouraged to attend conferences and publish their research work leading to the creation of a highly skilled and independent researcher. The program has four phases, namely Coursework, Qualifying Examination, Preparation & defence of Research Proposal and Thesis work & Submission.

## Financial Assistantship

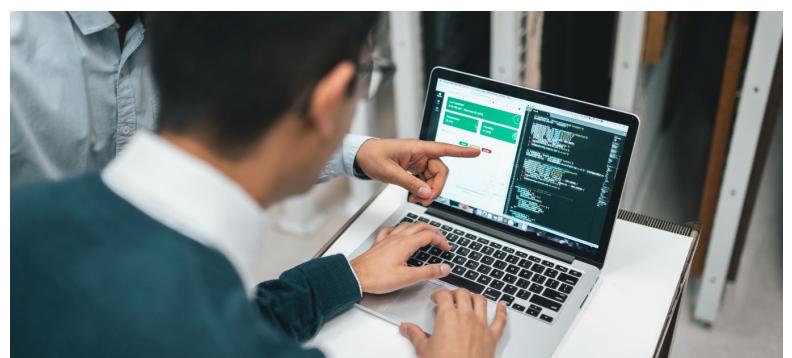
Candidates admitted into the Ph.D program are given sufficient financial support and it is in the form of Research Assistantship (RA)/Teaching Assistantship (TA). The maximum financial support is ₹ 40,000 per month (for full-time).

## Fee Waiver

The program fee for the deserving candidates is waived as per the terms and conditions stipulated by the Admissions Committee of IcfaiTech.

## Research Areas

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





## Ph.D. in Sciences

### Mathematics

- Operations Research
- Boolean Algebra
- Fluid Dynamics
- Fixed Point Theory
- Commutative Algebra
- Queuing Theory
- Markov/Non-Markovian Analysis, and Stochastic Modeling, Computational Fluid Dynamics
- Mathematical Modelling, Mathematical Physics

### Physics

- Experimental Solid State Physics
- Applications of quantum mechanics
- Mathematical Physics and Quantum optics
- Laser matter interaction (Experimental): 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.

### Chemistry

- Chemical kinetics
- Nano-scale energy materials – synthesis and applications
- Synthesis and applications of nano-composites based on transition metals
- Heterogeneous catalysis



# Faculty Profiles

## Dept. of AI & DS



**Dr. Sandeep Kumar Panda**

Ph.D

Professor

**Research Interest areas:** Blockchain Technology, Internet of Things, AI & ML, W3, Metaverse



**Dr L Lakshmi**

Ph.D

Associate Professor

**Research Interest areas:** Machine Learning, Deep Learning, Data Science



**Dr. P. Pavan Kumar**

Ph.D

Associate Professor

**Research Interest areas:** Deep Learning, High Performance Computing, Real-time systems



**Dr. S. Kaushik**

Ph.D

Associate Professor

**Research Interest areas:** Cloud Computing, Blockchain Technologies



**Dr. Deevena Raju**

Ph.D

Senior Assistant Professor

**Research Interest areas:** Image Processing, Data Science, Algorithms



**Dr. T Lakshmi Siva Rama Krishna**

Ph.D

Senior Assistant Professor

**Research Interest areas:** Distributed Systems, Cloud Computing, Artificial Intelligence and Speculative Processing



**Dr. Meena Kumari**

Ph.D

Senior Assistant Professor

**Research Interest areas:** Software Testing, Artificial Intelligence, Machine Learning



**Dr. Rashmi Sahay**

Ph.D

Senior Assistant Professor

**Research Interest areas:** IoT, Network Security, Blockchain, Cryptography, Applied Deep Learning



**Dr. S Jayanthi**

Ph.D

Senior Assistant Professor

**Research Interest areas:** Data Science, Big Data Analytics



**Dr. T Venkata Satya Vivek**

PDF, Ph.D

Assistant Professor

**Research Interest areas:** Cryptography, Data Hiding in Images/Audio/Video, Medical Image Processing



**Dr Srinivasa Rao Dhanikonda**

Ph.D

Assistant Professor

**Research Interest areas:** Big Data, ML, DL, and OCR



**Dr Ramakrishna Reddy K**

Ph.D

Assistant Professor

**Research Interest areas:** Data Mining, Machine Learning, AI



**Dr. Sukanta Das**

Ph.D

Assistant Professor

**Research Interest areas:** Vehicular Network, Machine Learning**Mr. Abhiram D**

M.Tech

Assistant Professor (Prob)

**Research Interest areas:** Facial Emotion Recognition, Convolutional Neural Networks, Natural Language Processing, Image Processing.**Dr. Pradosh Kumar Gantayat**

Ph.D

Assistant Professor

**Research Interest areas:** Network Security, Blockchain Technology, Optimization Techniques, Quantum Computing**Mr. Nath Sayannath**

M.Tech

Assistant Professor (Prob)

**Research Interest areas:** Computer vision, machine learning, deeplearning.**Dr. D. Krishna Madhuri**

Ph.D

Assistant Professor

**Research Interest areas:** Natural Language Processing and Block chain**Dr. Pallavi Mishra**

Ph.D

Faculty Associate

**Research Interest areas:** Natural Language Processing, Machine Learning, Deep Learning**Mr. Madhu Bandari**

M.Tech (Ph.D)

Assistant professor

**Research Interest areas:** Networks and Cyber security**Mr. Arram Sriram**

M.Tech (Ph.D)

Faculty Associate

**Research Interest areas:** Computer Networks**Dr. Priyanka Parimi**

Ph.D

Assistant Professor

**Research Interest areas:** Social Media Analysis, IoT, Soft Computing, Machine Learning**Mr. V V Satyanarayana Murty Bolla**

M.Tech (Ph.D)

University Academic Fellow

**Research Interest areas:** Multivariate Analysis, Inferential Statistics, Data Science**Mr. P Jagdish Kumar**

M.Tech(Ph.D)

Assistant Professor

**Research Interest areas:** AI,ML,Cyber Security, Deep Learning**Dr. P Rohini**

Ph.D

Associate Professor

**Research Interest areas:** Machine Learning, Computer Vision and Deep Learning**Mr. K Brahma Naidu**

M.Tech (Ph.D)

Assistant Professor

**Research Interest areas:** Artificial Intelligence, Data Analytics and Information Retrieval Systems.**Dr. K. Adi Narayana Reddy**

Ph.D

Associate Professor

**Research Interest areas:** Computer Vision, NLP

# Faculty Profiles

**Dr Kuncham Sreenivasa Rao**

Ph.D

Associate Professor

**Research Interest areas:** Machine Learning, Deep Learning, NLP & Artificial Intelligence**Dr. Vamsinath Javangula**

Ph.D

Senior Assistant Professor

**Research Interest areas:** Data Mining, Machine Learning**Dr. Madhusudana Rao Nalluri**

Ph.D

Associate Professor

**Research Interest areas:** Machine Learning, Deep Learning, Evolutionary Computing, Healthcare Analytics, Developing Heuristics for solving NP problems.**Dr. Banoth Seetha Ramulu**

Ph.D

Assistant Professor

**Research Interest areas:** Cloud Computing and Security, Big Data with Machine Learning and Deep Learning for SAR Images Healthcare Domains**Mr. K Varaprasada Rao**

M.Tech (Ph.D)

Senior Assistant Professor

**Research Interest areas:** Blockchain Technology, Cyber Security & Computer Networks**Dr. Dileep Kumar Murala**

Ph.D

Assistant Professor

**Research Interest areas:** Blockchain Technology, Meta Verse**Mrs. Sathyaraj Ar**

M.Tech(Ph.D)

Senior Assistant Professor

**Research Interest areas:** Blockchain Technology, Metaverse, Web3.0**Dr. Srinivasa Rao Kongara**

Ph.D

Assistant Professor

**Research Interest areas:** Machine Learning, Deep Learning and NLP**Dr. R Balamurali**

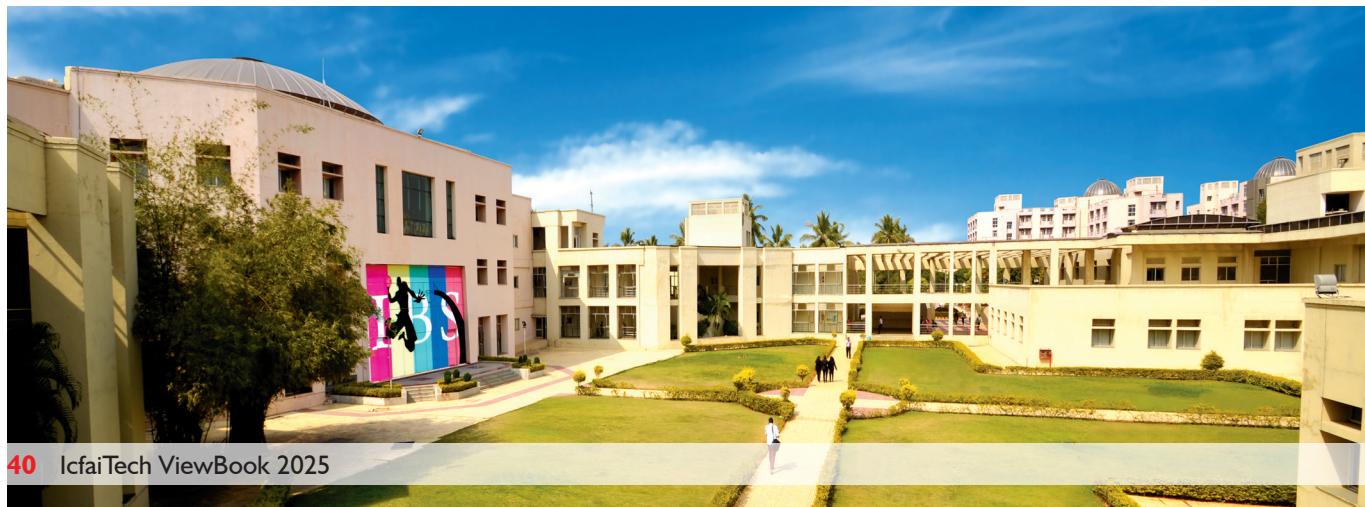
Ph.D

Senior Assistant Professor

**Research Interest areas:** WSN, ML, DL, Ethical aspects of AI**Dr. Santosh Kumar Sahoo**

Ph.D

Assistant Professor

**Research Interest areas:** Vehicular Fog Computing

**Dr. Shadab Ahmad**

Ph.D

Assistant Professor

**Research Interest areas:** Image Processing, Biometrics, Deep Learning**Mr. Joydeep Roy**

M.Tech(Ph.D)

Assistant Professor(Prob)

**Research Interest areas:** Deep Learning, Machine Learning**Dr. K.Bhargavi**

Ph.D

Assistant Professor

**Research Interest areas:** Networks and Cryptography, Cyber Forensics**Ms. Madhusmita Majhi**

M.Tech(Ph.D)

Faculty Associate

**Research Interest areas:** Blockchain Technology, Internet of Things, Machine Learning**Dr. Ramesh Ponnala**

Ph.D

Assistant Professor

**Research Interest areas:** Software Engineering, Machine Learning**Mr. Behera Jyothi Krishna**

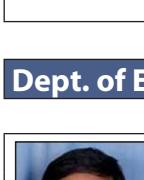
M.Tech

University Academic Fellow

**Research Interest areas:** Deep Learning, Computer vision, Generative mode (stable diffusion)**Dr. Sowjanya Ramisetty**

Ph.D

Assistant Professor

**Research Interest areas:** Wireless Networks, Internet of Things, Cyber Security, Machine Learning, Deep Learning**Dr. Asisa Kumar Panigrahy**

Ph.D

Associate Professor

**Research Interest areas:** Novel Nano devices, Nano- Micro sensors, Nanofabrication Technologies**Dr. Priyadarshini M**

Ph.D

Assistant Professor

**Research Interest areas:** Machine Learning**Dr. Sudheer Hanumanthakari**

Ph.D

Associate Professor

**Research Interest areas:** Neural Networks and Fuzzy Logic, Deep and Machine Learning, EV's**Ms.V Anitha**

M.Tech (Ph.D)

Assistant Professor

**Research Interest areas:** Deep Learning,

BioInfotmatics

**Dr. Padavala Akhendrakumar**

Ph.D

Senior Assistant Professor

**Research Interest areas:** Analog/ RF Circuits Design , Optimization and Machine Learning**Mr. Sanjib Kumar Raul**

M.Tech (Ph.D)

Assistant Professor

**Research Interest areas:** Online Social Networks, Internet of Things, Machine Learning, Deep Learning**Dr. Soumit Samadder Chaudhury**

Ph.D

Senior Assistant Professor

**Research Interest areas:** SiC based microwave and mm wave multi-band filter design, Metamaterial inspired filter and antenna design, Independent band tunning developments.

# Faculty Profiles



## Dr. Digvijay Vishwanathan Nair

Ph.D

Assistant Professor

**Research Interest areas:** Control systems, Renewables Integration with Grid, EVs



## Dr. Syed Shakeel Hashmi

Ph.D

Assistant Professor

**Research Interest areas:** Federated Machine Learning



## Dr. Rajesh Kumar Jha

Ph.D

Assistant Professor

**Research Interest areas:** Thin Film, Semiconductor Devices, Memory, Triboelectric nanogenerator



## Dr. M. Sandhya

Ph.D

Assistant Professor

**Research Interest areas:** Design of Wearable Antennas, Electromagnetic Bandgap structures, Defected ground structures, Optimization of Design parameters of Antenna using Machine Learning



## Dr. V. A. Sankar Ponnappalli

Ph.D

Assistant Professor

**Research Interest areas:** Antennas, Microwaves, and Radars



## Dr. N. Prasad

Ph.D

Assistant Professor

**Research Interest areas:** Signal Processing, Speech Enhancement



## Dr. Kousik Midya

Ph.D

Assistant Professor

**Research Interest areas:** Modeling and simulation of Nano-structured Devices

## Dept. of Humanities & Sciences

### Dept. of Chemistry



## Dr. Gouri Sankhar Brahma

Ph.D

Professor

**Research Interest areas:** Synthesis and application of nano energy storage materials



## Dr. Srilalitha Vinnakota

Ph.D

Associate Professor

**Research Interest areas:** Inorganic nano synthesis, Green Synthesis, Green Chemistry



## Dr. Sathish Kumar Kurapati

Ph.D

Assistant Professor

**Research Interest areas:** Design and development of Functional Materials based on Metal Organic Frameworks, Polyoxometalates and Nanographene derivatives Electrocatalytic reduction of water and CO<sub>2</sub>



## Dr. Kesavaraao Sykam

Ph.D

Assistant Professor

**Research Interest areas:** Protective coatings; Flame retardants; Polytriazoles; Bio-polymers; Microcarriers; Guar Gum Derivatives

## Dept. of English



## Dr. M Swathi

Ph.D

Assistant Professor

**Research Interest areas:** Pedagogical practices, Writing and Reading Skills, Learner differences, Material Design and Development, Cognitive Psychology

**Dr. Loreina Pagag**

Ph.D

Assistant Professor

**Research Interest areas:** Linguistics**Dr. Bonala Kondal**

Ph.D

Assistant Professor

**Research Interest areas:** Second Language Writing, Academic Writing, Second Language Learning and Acquisition, CALL and MALL**Dr. Nilanjana Debnath**

Ph.D

Assistant Professor

**Research Interest areas:** Indian English Literature, Women's Writing**Dr. V. Madhupama**

Ph.D

Assistant Professor

**Research Interest areas:** Applied Linguistics, Language acquisition Studies, Syntax, Morphosyntax, Computational Linguistics and Morphology**Dr. Swamy Bairi**

Ph.D

Assistant Professor

**Research Interest areas:** English Language Teaching and Learning, Corpus Linguistics, Second Language Acquisition, Materials Evaluation, Testing and Evaluation**Dr. Maloth Upender**

Ph.D

Assistant Professor

**Research Interest areas:** Sociolinguistics, Language Endangerment, Historical Linguistics**Dept. of Mathematics****Dr. Jyotiranjan Nayak**

Ph.D

Professor

**Research Interest areas:** Operation Research Non-Convex Programming, Optimal Control Theory, Fuzzy Sets**Dr. Anjanna Matta**

Ph.D

Associate Professor

**Research Interest areas:** Computational Fluid dynamics**Dr. D P R V Subba Rao**

Ph.D

Associate Professor

**Research Interest areas:** Algebra**Dr. Rakesh Reddy. T**

Ph.D

Senior Assistant Professor

**Research Interest areas:** Commutative Algebra**Dr Kesetti Ramesh**

Ph.D

Senior Asst Professor

**Research Interest areas:** Fluid Dynamics, Heat and Mass transfer, Nano fluids**Dr G Sudhaamsh Mohan Reddy**

Ph.D

Assistant Professor

**Research Interest areas:** Fixed Point Theory , Number Theory and Applied Mathematics.**Dr. Gautam Kumar**

Ph.D

Assistant Professor

**Research Interest areas:** Convection in porous media, Hydrodynamics stability, Geophysical Fluid Dynamics

# Faculty Profiles



**Dr. Sunil Das**

Ph.D

Assistant Professor

**Research Interest areas:** Matrix Theory



**Dr. Ashwin Kumar Myakalwar**

Ph.D

Associate Professor

**Research Interest areas:** Laser Spectroscopy, Chemometrics, Optical instrumentation and automation



**Dr. T. Divya**

Ph.D

Assistant Professor

**Research Interest areas:** Computational Fluid Dynamics, Flow Accelerated Corrosion, Bone Tissue Engineering



**Dr. T. Shreecharan**

Ph.D

Associate Professor

**Research Interest areas:** Quantum computation and Machine learning



**Dr. Anjalaiah**

Ph.D

Assistant Professor

**Research Interest areas:** Statistical Inverse Problems



**Dr. Ch. Leela**

Ph.D

Senior Assistant Professor

**Research Interest areas:** Experimental: Laser matter interaction, imaging of laser induced shock waves from materials and explosives, time and spatially resolved spectral studies, laser ablation propulsion, filamentation, acoustic and radio frequency detection of shock waves.



**Dr. Pijush Panday**

Ph.D

Assistant Professor

**Research Interest areas:** Ecological Modeling, Disease Modeling, Nonlinear Dynamics



**Dr Thokala Solomon Raju**

Ph.D

Assistant Professor

**Research Interest areas:** PINN for PDEs and Quantum Computation



**Dr. Upendar Mendum**

Ph.D

Assistant Professor

**Research Interest areas:** Data Science - Machine learning - Deep Learning - Fluid Mechanics, Micropolar and couple stress fluids-Convective heat and mass transfer - porous, media - CFD, Nanofluids, Stability Analysis.



**Dr. A. Suneetha Rajesham**

Ph.D

Assistant Professor

**Research Interest areas:** Psychology, Counselling

## Dept. of Physics



**Dr. Elizabeth Zacharias**

Ph.D

Professor

**Research Interest areas:** Experimental solid state physics-Dielectric materials



**Dr .K. Shyamala Reuben**

Ph.D

Assistant Professor

**Research Interest areas:** Psychology(Social Psychology) & Sociology



**Dr.Kota Madhusudhana Rao**

Ph.D

Assistant Professor

**Research Interest areas:** Accounting and Finance

	<p><b>Dr. Balaji Veju</b> Ph.D Assistant Professor <b>Research Interest areas:</b> Women Empowerment and SHGs, Women Entrepreneurship</p>	 <p><b>Dr. Grandhi Suresh Kumar</b> Ph.D Associate Professor <b>Research Interest areas:</b> Intelligent Manufacturing, Sustainable and clean energy systems, CO2 capture, Applications of AI and ML in thermal energy and production systems</p>
<p><b>Dept. of Mechanical Engineering</b></p>		
	<p><b>Dr. K L Narayana</b> Ph.D Professor &amp; Director, IcfaiTech <b>Research Interest areas:</b> 3D Printing - Rapid Prototyping, Kinematic Analysis, Rotor Dynamics &amp; Vibrations, Condition Monitoring, Machine Component Design, Material Science</p>	 <p><b>Dr. Barla Madhavi</b> Ph.D Sr. Asst. Professor <b>Research Interest areas:</b> Design and Advanced Manufacturing, Analysis</p>
	<p><b>Dr. M. Srinivasa Reddy</b> Ph.D Professor <b>Research Interest areas:</b> Thermal Performance of Building Envelope and Materials</p>	 <p><b>Mr. Ivaturi Veereshwara Sarma</b> M.Tech (Ph.D) Senior Assistant Professor <b>Research Interest areas:</b> ML applications for Structural Health Monitoring</p>
	<p><b>Dr. A Chandrashekhar</b> Ph.D Associate Professor &amp; Associate Dean - IQAC <b>Research Interest areas:</b> Robotics, Additive Manufacturing, AI, ML, IOT</p>	 <p><b>Ms. Priya S Natesh</b> M.Tech (Ph.D) Sr. Assistant Professor <b>Research Interest areas:</b> Structural Engineering, Composite beam behavior, fire loading, structural analysis and design, mechanics</p>
	<p><b>Dr. A. Manmadha Chary</b> Ph.D Associate Professor <b>Research Interest areas:</b> 3D Printing, Additive Manufacturing, Bio-Manufacturing</p>	 <p><b>Dr. Sarit Chanda</b> Ph.D Senior Assistant Professor <b>Research Interest areas:</b> Earthquake Engineering, Machine Learning, Deep Learning, Structural Engineering</p>
	<p><b>Dr Avinash Malladi</b> Ph.D Associate Professor <b>Research Interest areas:</b> Metal Additive Manufacturing, 3D Printing, Composite Materails, CAD/CAM</p>	 <p><b>Ms. Priyanka Chatteraj</b> M.Tech (Ph.D) Sr. Assistant professor <b>Research Interest areas:</b> 3D printing , additive manufacturing</p>

# Faculty Profiles



**Mr. Chittemsetty Venugopal**

M.Tech (Ph.D)

Assistant Professor

**Research Interest areas:** Internal Combustion Engines, Alternate fuels



**Dr. K. Vivekananda**

Ph.D

Assistant Professor

**Research Interest areas:** Ultrasonic Vibration-assisted Manufacturing Processes, Biomedical applications of Ultrasonic Vibration-assisted Techniques, Wire Cut EDM Process, Extrusion Processes, LASER Cutting/Welding Processes, Additive Manufacturing, Finite Element Analysis (FEA), Optimization Techniques.



**Dr. M.L.Pavan Kishore**

Ph.D

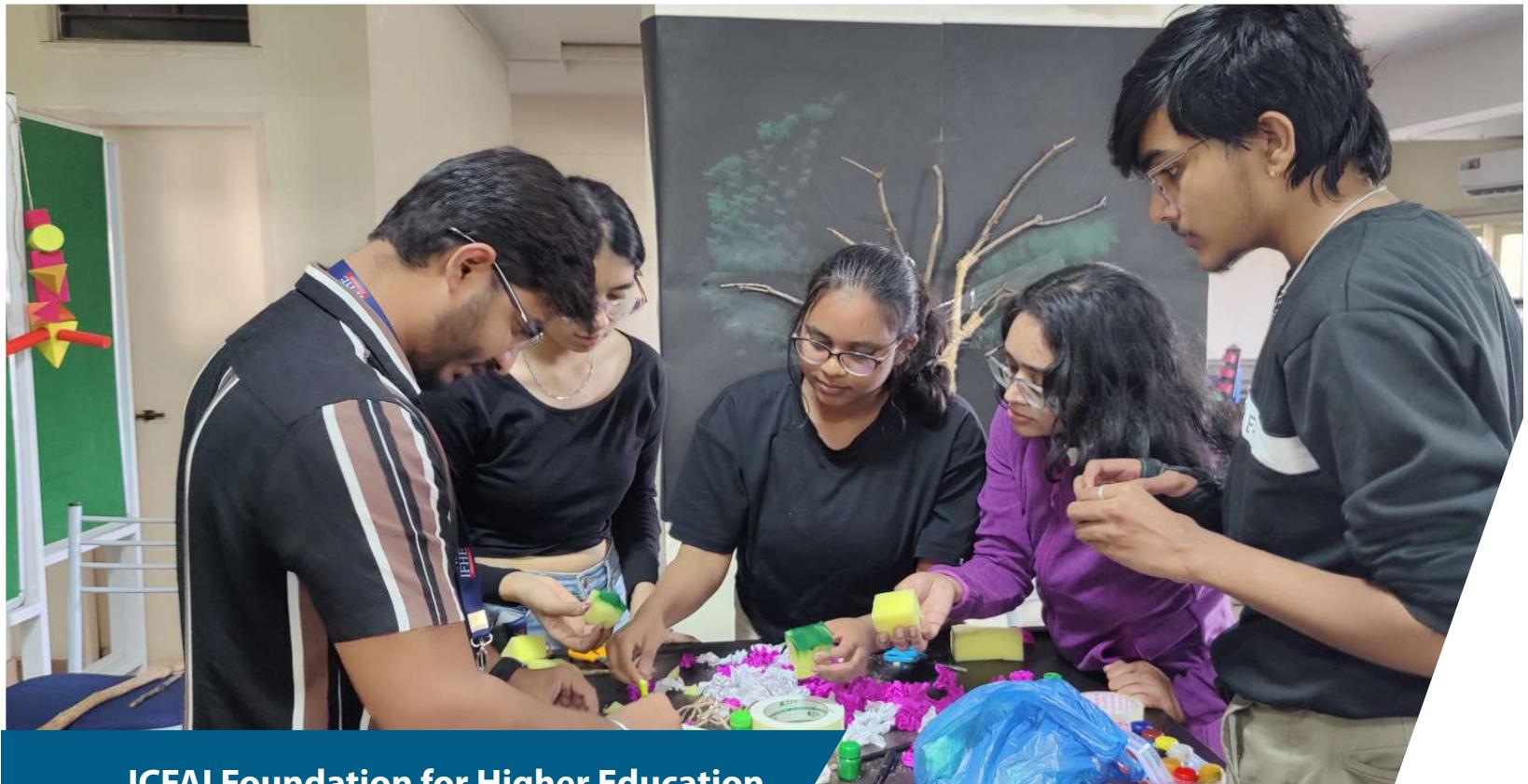
Assistant Professor

**Research Interest areas:** Composites, Structural Dynamics





# ICFAI School of Architecture



**ICFAI Foundation for Higher Education**

**The ICFAI Foundation for Higher Education** is a NAAC A++ institute which is declared as a Deemed to be University, under Section 3 of the UGCAct. 1956. It has evolved a comprehensive student-centric learning approach consisting of several stages, designed to add significant values to the learner's understanding in an integrated manner, covering relevant knowledge, practical skills and positive attitudes. The IFHE is a member of the Association of Indian Universities (AIU) and the Association of Commonwealth Universities (ACU).

## What makes ISArch Unique?

**Campus esprit-** ISArch curriculum is such that it merges the experience of campus life and academics into a blend so smooth that architecture seems like calm seas. While along the line the academics show a unique syllabus that is constantly updated to keep the students up-to date with the present and the future.

**An All-Inclusive Approach** - The three-fold approach of Theory, practice and fun is to create an all-inclusive experience of learning at ISArch comprising of Vocational Skill Training & Transferable Skills. ISArch focuses on training its students toward necessary transferable skills. Such as communication skills, necessary leadership abilities, and imposing teamwork through its studio culture, and finally aims to create a comprehensive personality of each one of its students.

**Toward a Sustainable Cause** - The Program builds on a unique project-based approach and focuses on the role of the architect as the designer with specialised sustainable context specific design knowledge and skills. The strong emphasis is targeted to the successful integration of renewable and sustainable energy technologies into buildings, which requires an understanding of both design and technology and hence the close cooperation



**The ICFAI School of Architecture (ISArch), ranked best private architectural institute in Telengana by IIRF, is a constituent of IFHE. It is established in the year 2018. ICFAI School of Architecture offers 5 years (10 semesters) full-time Bachelor of Architecture (B. Arch.) degree program, approved by the Council of Architecture. ISArch was established to evolve a Center for Excellence in Architecture, through a wholesome approach in Architectural pedagogy. At ISArch, we strongly believe that teaching should focus on having the student achieve an awareness of ideas and values which needs to be focused on and realized. The idea is to expose the student to various dimensions in Architecture and to support them with the latest technology and infrastructure that enables them to express themselves.**

of architecture and engineering. ISArch has an MoU with USGBC (United States Green Building Council).

**MoUs** - The department enjoys strong collaborative links with overseas institutions. The students shall have the opportunity to attend conferences, seminars and training courses both in India and abroad, and dual degree program. ICFAI School of Architecture signed an MOU with Politecnico De Milano, A 150-year-old Top Italian University, facilitating Several Exchange Programs for Students and Faculty Members. It has also signed an MoU with Boston Architecture College, a top institution in USA.

**Ready for Global Exposure** - The department has strong collaborative links with architectural practices in India and abroad; experts in the field are often invited to give you lectures, tutorials, and participate in design reviews.

**The reality in Studio** - ISArch enables and aims at creating in-studio experiments of real-time problems and possible futures to take up as challenges that we all face today are evolving in scale and complexity.

**Industrial Know-how**- The program offers cross disciplinary interaction and debate with experts from the Industry, as the students get to listen to professionals from other industrial sectors as well and share experience, and can enhance their professional network of contacts and support.

**Internship Programs**- ISArch boosts the students' knowledge by letting them take up summer internships and Practical Training to improve their field experience thereby making them professionally competent.

**Emphasis on research skills development** - Curriculum at ISArch emphasises imparting research aptitude to students to enable scientific inquiry in them. ISArch curriculum is planned to include Architectural research courses allowing students to realise their core areas of competence and a direction for the future.

**Architecture Readiness** - The curriculum at ISArch emphasises skill-development courses. Development of critical thinking skills, development of interpersonal communication and professional presentation skills, cross-disciplinary interaction and debate, working with professionals from other industrial sectors and sharing experience, as well as enhancing your professional network of contacts and support.

**Placement Assistance** - IFHE has a full-fledged placement cell team for the campus placement with top-notch companies. It gives assistance for preparing interviews, personality development and portfolio making workshops. Faculty members from internationally acclaimed universities are invited to conduct workshops and interact with the students. We encourage students and guide them to be placed in renowned architectural firms in India and abroad for their practical training and internship programs.

### State-of-the-Art Infrastructure

#### The Studios

The studios are equipped with the best of facilities to enhance the quality of the teaching and learning process. Every studio, lecture hall, labs and library is networked and are equipped with audiovisual tools to enhance the teaching - learning experience. The IT infrastructure and library provide the necessary support to the faculty and students to update their knowledge for learning, research and consultancy.

#### Laboratories

##### Climatology Laboratory

This laboratory is envisioned to equip ICFAI School of Architecture, IFHE with research capabilities in the direction of sustainability and climatological studies within the built environment.

##### Modeling & Prototyping Facility

Architecture as we believe draws its knowledge from both traditional and modern scientific worlds. The modelling and prototyping facility at ICFAI School of Architecture facilitates construction with traditional techniques as well with modern Computer-Aided Manufacturing CAM.

##### Carpentry workshop

A 650 sqm workshop facility with an outdoor spill out area. Equipped with state of the art multiple Wood Lathe machines, Drilling machines, Mechanised sawing (band Saw, circular saw, jigsaw), Grinding wheel, Boring machines, Chisels, Levelers, filing and even a CAM section.

##### Construction Yard

Along with various lab facilities on the campus, ISArch offers Construction Yard to conduct experiments and build hands-on with traditional and alternate construction systems

# ICFAI School of Architecture

## Material Museum

Various types of Materials and Product samples from industries are maintained on campus for students to refer to and understand practically the real-world practices. This facility is constantly being upgraded with samples. The list of Samples includes (but not limited to) drywall construction systems, plumbing and water supply systems, UPVC window systems, Paints and finishes, construction blocks of varied materials, multiple tools etc.

## Merit based Scholarship

ISArch offers Merit Scholarships to the students pursuing the B.Arch Program. The scholarships are based on past academic record in Class XII and Semester-wise performance during the B.Arch Program. 100 percent scholarship is available for eligible students.

## Eligibility Criteria

Pass in 10+2 scheme of examination with 45% marks in Physics, Chemistry and Mathematics and also 45% marks in aggregate.

OR

Pass in 10+3 Diploma Examination

In addition to the above, Pass in National Aptitude Test in Architecture (NATA) conducted by Council of Architecture (COA) or Valid Score in JEE Mains Paper 2

## Contact

Ph: +91 90491813 / 9874244063

Toll-free: 1 800 599 0767

E-mail: barchinfo@ifheindia.org



MoU Exchange Ceremony



Thesis Jury



ISArch Students on World Heritage Day





**IcfaiTech**

Faculty of Science & Technology (FST)

The ICFAI Foundation for Higher Education

Dontanapalli, Shankarpalli Road, Hyderabad-501 203

[www.ifheindia.org/icfaitech](http://www.ifheindia.org/icfaitech)