

# 6 Point Oath for Students

- I Have to set a goal in my life and to achieve this goal, I will acquire the knowledge needed to succeed.
- I will work with courage to achieve success in all my tasks and enjoy the success of others.
- I shall always keep myself, my home, my surroundings, neighborhood and the environment clean and tidy.
- I realize righteousness in the heart leads to beauty in the character, beauty in the character brings harmony in the home, harmony in the home leads to order in the nation and order in the nation leads to peace in the world.
- I will lead an honest life free from all corruption and will set an example for others.
- I will light the lamp of knowledge in the nation and ensure that it remains lit for ever.



Professional  
Education  
With a  
Difference

## Prospectus

# VVIT

**VIJAYA VITTALA  
INSTITUTE OF TECHNOLOGY**



**VIJAYA VITTALA INSTITUTE OF TECHNOLOGY**

(Approved by AICTE, New Delhi & Karnataka State Government, Affiliated to VTU)  
35/1, Kothanur Post, Hennur-Bagalur Road, Bangalore - 560 077  
Phone: 080 28465969, 65472867. Fax: 080 28445045  
Mob: 98452 64811 / 94809 98948 / 98452 10865 / 97400 08238  
Email: vvit.info@gmail.com Website: www.svvit.org

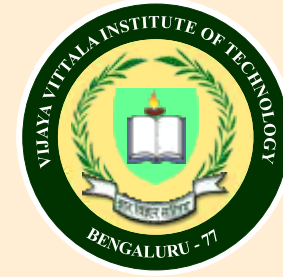


## Our Vision

“ To develop into an Institution with a commitment to extend the frontiers of knowledge through Research and Development. ”

## Our Mission

“ To impart superior engineering education to students that focuses on the current technological needs and industrial requirements matching with the international standards with awareness about ecological and environmental issues. To imbibe students with an indelible mark of values and principles coalesced with core values of our rich and vibrant heritage. ”



# Vijaya Vittala Institute of Technology

## In Pursuit of Knowledge

*"A Guru is far more than a teacher in the ordinary sense of the word.  
A teacher gives knowledge, but a Guru gives himself"*

*-Ana Angarika Govinda*

## About the Institute

India is a knowledge economy, one that creates, disseminates, and uses knowledge to enhance its growth and development. Vijaya Vittala Institute of Technology believes that knowledge can empower the youth into a national asset by providing proper education and guidance.

Vijaya Vittala Institute of Technology (VIT) was established by Sri Vijaya Vittala Charitable and Educational Trust, affiliated to Visvesvaraya Technological University, Belgaum and approved by All India Council for Technical Education, New Delhi.

Late Prof. K. Venkatagiri Gowda, a renowned academician and a noted economist from the London school of economics was the founder President of the trust. Dr. Venugopal K R, a visionary and educationist, is the Honorary Technical Advisor to the Trust. Smt Rukmini T the founder trustee of Alpha College of Engineering is the Chair Person of Vijaya Vittala Institute of Technology. This group of pioneering educators, have shaped the lives of many students into great careers.

The college is located in the salubrious outskirts of Bangalore, 15 Kilometers from the heart of the city and is located on the International Airport link road. The city is the fastest growing metropolis in India and is the Knowledge and Bio-Technology capital of India.





## Contents

Administration	1
From the Principals Desk	2
Faculty	3
A Unique Approach	3
Excellent Campus Amenities	4
Placement Activities	6
Programme Details	8
General Rules	21
Bangalore - The Knowledge Capital of India	26



Smt Rukmini T  
Chair Person

## Administration

### Smt Rukmini T

#### Chair Person

Vice President of Alpha College of Engineering, Chair Person of Aryabhata Educational Society, Treasurer of Prof. Venkatagiri Gowda Charitable & Educational Trust and Treasurer of Dr. K. Venkatagiri Gowda Memorial Trust. Smt Rukmini T is actively involved in organizing social and charitable activities.

### Dr. Venugopal K R

#### Honorary Technical Advisor

A visionary and educationist, He is the Honorary Technical Advisor to the college. He has doctorates in Economics and Computer Science. He has authored 40 books in Computer Science Engineering and Economics and published more than 400 research papers in International Journals and Conferences.

### Dr. Krishna Prasad T

#### Vice-President

He completed his MBBS from Bangalore Medical College and his MS Surgery from Vijaynagar Institute of Medical Sciences, DNB Surgery and DNB Urology from the National Board of Examinations.

### Sri Thyagaraj K

#### Secretary

Secretary of Alpha College of Engineering, and Treasurer of Aryabhata Educational Society. He is a builder and Developer and is actively involved in many construction works.

### Sri Shiv Prakash T

#### Treasurer

He is pursuing his Ph.D in Computer Science from University Visvesvaraya College. He completed his M.Sc. Engineering by Research in Computer Science from UVCE Bangalore. He has over ten years of IT experience in the field of Embedded Systems and Digital Multimedia. He is currently authoring three books namely "Mastering Java", "Mastering J2EE" and "Data Structures in C" to be published by Tata McGraw Hill in 2015 and 2017 respectively. His research interests include Ad Hoc networks, Sensor networks and Embedded Linux. He is involved in the Placement Training activities of the college.



Dr. Krishna Prasad T  
Vice-President



Sri Thyagaraj K  
Secretary



Sri Shiv Prakash T  
Treasurer







## From the Principal's Desk



Dr. S. B. Anadinni  
Principal

Welcome to VVIT, an institution that rests on a strong academic foundation, blending with a modern approach that seeks to mould young men and women who will make a success of themselves no matter where they go. Our system is designed to give students friendly support and professional guidance throughout their time here. Their experiences here enable them to develop a sound basic knowledge and understanding of engineering concepts

Engineering education must be designed to accommodate current trends and future needs and must create more connections and stronger partnership with the global society in which we are embedded. We must examine the relevance of curricula and strive for fulfillment of university, college, and professional missions. Use of current technologies and the creation of new technologies are at the heart of the engineering profession.

We believe that our motto "In Pursuit of Knowledge" will come only with hard work and dedication, that will be imbibed in all the students at VVIT.

### Advisory Board

Dr. N R Shetty  
Former VC, Bangalore University

Dr. L M Patnaik  
Former VC, Defence University, Pune

Dr. S Lakshmana Reddy  
Former Professor,  
Bangalore University

Dr. H N Shivashankar  
Former Principal, UVCE

Dr. K V Acharya  
Former Professor,  
Bangalore University

Dr. K Mallikarjuna Chetty  
Former Dean, UVCE

Dr. N Srinivasan  
Former Dean, UVCE

Dr. M Venkatachalappa  
Professor,  
Bangalore University

Dr. Venugopal K R  
Principal, UVCE

Smt. Achala Joshi  
Trustee, IES, Mumbai

## Faculty

At VVIT we are committed in providing quality education to all those who knock at its portals. The faculty members have extensive expertise and experience in their chosen fields and have a primary commitment to the welfare of their students. The faculty are constantly given opportunities to update their skills by attending conferences and workshops. They are enhanced by visiting experts, from both the academic field and the industry. Innovative methodology, individual attention and careful grooming which provides the students ample opportunity to excel and rise above mediocrity.

## A Unique Approach

### Academic Governance

With a view to ensure that VVITians get the very best of academic exposure, all academic activities at the college are governed and monitored by the Advisory Board and Governing Council comprising of eminent personalities and experts from the field of academics. The board oversees critical aspects such as Programme Design, Implementation and Feedback.

### Feedback

Specific problems of the students are identified through monthly student feedback and remedial action is taken by the faculty.

### Academic Orientation

A strong academic orientation lays the foundation for life-long learning, ingraining in the youth the psyche of the eternal student. It is imperative that all students attend the orientation programs conducted in the campus. The orientation program enables the students to familiarize themselves with the teaching methodology and aids used in the classroom, campus and library. The program also focus on academic and personal counseling, enabling students with necessary study skills required for academic setting, enabling students to adjust to different methods of teaching. VVIT believes in regular parent teacher interaction to improve the student's performance, the college website provides individual logins to parents with accesses to student's academic results and attendance.

### Modular Curriculum

VVIT is affiliated to Visvesvaraya Technological University one of the biggest Technological University in India, having 210 colleges affiliated to it with Under Graduate courses in 27 disciplines and Post Graduate Programmes in 67 disciplines. The theory and practical syllabi is constantly revised by VTU to keep the students on par with industry demands.

### Continuous Internal Assessment

At VVIT students receive regular feedback from the respective faculty. The faculty employ a range of assessment methods through written work, Internals, Unit test, Presentation, Projects and Model Exams. Students receive constructive suggestions from their instructors. Be it by written comments, conferences or e-mail, the VVIT faculty pay careful attention to the academic performance and growth of every student.





- 
- Establish personal contact
  - Raise self esteem
  - Communicate 'potential' in the best possible way
  - Explore students approach to work outside class
  - Provide targeted support where appropriate
- 

### Discipline and Values

We at VVIT believe that if we are to succeed in the task of nation building, our youth need to develop a sense of values and discipline which will form the basis for their approach to everything around them, making them responsible and sensitive citizens. Instilling a deep sense of values and discipline in a continuous process of all activities of the college.

## Excellent Campus Amenities

We at VVIT believe that availability of new technology can make learning more creative, interactive and information driven by using multifaceted delivery techniques. The infrastructure at VVIT has been developed with students and faculty needs and to support rigorous academic study. Spread over 10 Acres of tranquil landscape and a built up area of 1,50,000 sq. ft. which houses lecture halls, a library, labs, workshops, seminar hall, canteen and residential area these have been designed with meticulous attention to detail and thoughtful design and use of space, making it a truly ambient environment to pursue higher studies. The vibrant interiors and exquisite touches, lend the college an ambience that is as delightful as it is inspiring.



### Lecture halls

The lecture halls are designed to be spacious as per AICTE regulations. The matchless overall approach and open door policy of the faculty lends as additional dimension to academic learning at VVIT.

### Library and Information Centre

The modern library houses over 15,000 volumes apart from subscriptions to leading nation and international periodicals and journals. The digital library sections houses an extensive range of CD-ROMs, & DVD's. The library serves as a rich workspace for students to do research and referencing.

### Modern Computer Labs

High-end hardware systems with modern computing facilities with the latest branded desktops(HP/Acer) are available to meet project requirements and encourage research activities. A 5Mbps dedicated line with 24 hour Internet connectivity, with a backup line for support. The college has several computer labs, each with a capacity to accommodate 25 students. The Gigabit networked systems are configured to allow individual internet access and data sharing from all the terminals. Students have extensive access to the internet for research and referencing. All labs have extended working hours enabling students to work late hours.

### Work Shops and Basic Science labs

The Work Shops and labs are completely geared to handle all requirements of the First year programmes. Bristling with the latest machines and equipment sourced from the best of manufactures.

### Student Housing

The college provides separate residential facilities for boys and girls. The facility caters to the needs of students from all over the country. Located conveniently in the proximity of the college campus, the well furnished hostels are equipped with modern amenities like recreation centers, generators, UPS, water heaters and water coolers. The well maintained catering service prepares hygienic and nutritious food and works round the clock to meet the needs of the students, faculty and guests. Security and doctor on call are provided to the students. The efficiently administered to provide the right atmosphere for student life.

### Scholarship and Financial Aid

The Management is committed to provide financial help to deserving students of all categories. The scholarships, offered by the Management are primarily aimed at promoting quality education among the students. Students with brilliant academic records (PCM aggregate greater than 85%) are eligible to apply for merit scholarship.

### Leisure and Sporting Activities

The college has adequate infrastructure facilities for indoor and outdoor games; students are encouraged to participate in all events. The Department of Physical Education and Sports focuses to imbibe in the student's discipline, team skills, leadership qualities and the sense of belonging through sports activities and the practice of yoga. Extra Curricular activities are student-driven, and new initiatives are encouraged.





# Placement Activities

Mr. Dhananjay Kumar an experienced IT professional who has worked extensively in the corporate sector leads the Placement Cell. Staff and students ably support the Placement Cell through the placement committee.

The Placement Cell helps to assist the development of graduates with a balanced set of technical skills, interpersonal skills and with a positive attitude to life. The Placement Cell provides one of a kind training to the students in three phases: C, C++ and Java training, Advanced Java and .NET training and Embedded and System Software training. These training programs are conveyed with live demonstrations and experts from Industry are invited to cover key topics, along with soft skill development, Personality Development (PD) and Career Orientation counseling. The Cell aims at building a computerized database of the students Curriculum Vitae to serve the industry through continuous interaction with reputed companies

## Soft Skill Training

With emphasis on communicating purpose and presenting projects perfectly, various soft skills are imparted in a variety of value added programmes at the college. Along with a strong academic base, these attributes are an important pre-requisite for success in the global market. The soft skill training is imparted from professional training centers.

## Technical Topics Covered

- Concepts of the C, C++ and Java Programming Languages
- Project Development using OOPS
- Objective Types in C, C++, Java
- Application Programming In Linux
- Java 2 Platform, Java Enterprise Edition Topics, Microsoft .NET Topics
- Operating Concepts: Semaphores, Dead Locks, Tasks, Threads etc
- Embedded Concepts: Embedded / Real Time Operating System concepts,
- Timers, BootLoader, BSP, Porting etc
- Linux Concepts: gmake, gcc, gdb, ddd, valgrind, shell scripting, device drivers application development etc



# Key Recruiters

- IBM India Pvt.Ltd.
- Syntel
- HP
- Razor Think
- Aryaka Systems
- Cognizant
- Suphalaam Technologies
- Tyco Electronics
- MS Triveni
- Turbines
- M/S Everest Industries
- Analytics Quotient
- Cisco
- Artech Infosystems
- Good Through Software Solutions
- Health Assist Retail – On
- Sobha Developers
- Savi Info Systems
- Unisys
- We-Chat
- Inwentra
- Common Floor
- Spectrum
- Planning Services
- BHEA

# Some of the students placed in Key Companies:

Name of Company	Name of Students
■ IBM India Pvt Ltd	Milchah V Thomas, Aishwarya N, Harshitha M, Supreeth S Desai, Vivek E, Karishma Chopra, Maria Shruthi
■ Unisys	Harshitha
■ HP	Md. Arfath Kamal, Jahnavi B Shetty, Manoj Kumar
■ M/S Everest Industries	Anirban Das
■ Retail On	Gosavi Mitesh
■ Aryaka Networks	Gayathri N, Khaja Moinuddin M
■ Cisco	Sumanth H R
■ Honda	Somanathan
■ Musashi	Ranjith V
■ Mahindra & Mahindra	Chirag Arora
■ L&T	Srinivas B N





## Programme Details

### Bachelor of Engineering

- Civil Engineering
- Computer Science & Engineering
- Electronics & Communication Engineering
- Mechanical Engineering
- Aeronautical Engineering\*

**Duration :** 4 Years (8 Semesters)- Full Time

**Eligibility :** Candidates should have passed PUC/10+2/ or equivalent with 45% aggregate in PCM (40% in case of candidates belonging to reserved category, SC/ST/CAT-I). Diploma Candidates should have minimum aggregate of 45% (40% in case of candidates belonging to reserved category) for Lateral Entry. Non-Karnataka Candidates are also eligible for Lateral Entry.

### Diploma programmes

- Civil Engineering ■ Mechanical Engineering
- Electrical and Electronics Engineering\* ■ Automobile Engineering\*

**Duration :** 3 Years (6 Semesters)- Part Time

### Master of Technology

- Structural Engineering ■ Construction Technology ■ Machine Design
- Computer Integrated Manufacturing ■ VLSI Design & Embedded Systems
- Signal Processing ■ Computer Network Engineering

**Duration :** 2 Years(4 Semesters) – Full Time

### Eligibility

Candidates who have passed the prescribed Qualifying Examinations (PG-CET) with not less than 50% of the marks in aggregate of all the semesters/years of the degree examination (cumulative sum of secured marks of all the semesters/years divided by the sum of the maximum marks). However, in the case of candidates belonging to SC/ST and CAT-1, marks shall not be less than 45 %.

### Original Certificates to be submitted at the time of admission

- PUC/Intermediate/10+2 Certificate/Diploma/ Marks Card/Diploma Certificate/ B.E Marks Cards
- CET Allotment Letter ■ Transfer Certificate ■ Medical Certificate
- Migration Certificate in the case of Non - Karnataka
- Eligibility fee for Non-Karnataka/Foreign students to be paid to Visvesvaraya Technological University

**Note :**  
\* Programmes under approval

## Diploma in Mechanical Engineering

### Semester I

- English Communication
- Applied Mathematics-I
- Basic Electrical & Electronic Engg
- Engineering Graphics
- Basic Electrical & Electronic
- Engg Lab
- Basic Computer Skills

### Semester II

- Applied Mathematics-II
- Applied Science
- Mechanical Engineering Science
- Fluid Mechanics
- Computer Aided Engg Graphics
- Applied Science Lab
- Basic Workshop Practice

### Semester III

- Engg Mechanics & Strength of Materials
- Fluid Mechanics & Machinery
- Manufacturing Technology-I
- Mechanical Measurements & Metrology
- Material Testing & Quality Control Lab
- Basic Workshop Practice-II
- Machine Shop-I

### Semester IV

- Theory of Machines
- Thermal Engg-I
- Manufacturing Technology-II
- Fluid Power Engg
- Fluid Power Lab
- Machine Shop-II
- Parametric Solid Modeling Lab

### Semester V

- Basic Management Skills & Indian Constitution
- Thermal Engg-II
- Design Of Machine Elements
- Mechatronics
- Mechatronics Lab
- C-Programming & Mat Lab
- CASP
- Project Work & Industrial Visit

### Semester VI

- Flight Vehicle Design
- Avionics
- Electives IV
- Electives V
- Project Work
- Seminar
- Thermal Engg Lab
- CNC & Casting Simulation Lab
- Project Work





## Diploma in Civil Engineering

### Semester I

- English Communication
- Applied Mathematics-I
- Applied Science
- Materials of Construction-I
- Applied Science Lab
- Basic Computer Skills
- Engineering Drawing

### Semester II

- Applied Mathematics-II
- Materials of Construction-II
- Surveying-I
- Engineering Drawing
- Surveying Practice-I
- CAD Lab-I

### Semester III

- Strength of Materials
- Environmental Engg-I
- Construction Technology
- Surveying-II
- Building Planning & Drawing
- Civil Engineering Materials Testing Lab
- Surveying-II

### Semester IV

- Hydraulics
- Environmental Engg-II
- Water Resources Engg
- Surveying-III
- Hydraulics & Environmental Lab
- Building Drawing Using CAD
- Surveying Practice-III

### Semester V

- Concrete Technology & RCC
- Highway Bridge & Airport Engg
- Estimating & Costing-I
- Elective
- Irrigation & Bridge Drawing
- Computer Applications Lab
- CASP
- Project Work

### Semester VI

- Railway, Tunnel & Harbor Engg
- Estimating & Costing-II
- Design of Steel & Masonry Structures
- Construction Management & Constitution of India
- Construction Practice
- Extensive Survey Project
- Project Work



## Diploma in Electrical & Electronics Engineering\*

### Semester I

- Applied Mathematics-I
- Applied Science
- Mechanical Engineering Science
- Elements of Electrical Engineering
- Applied Science Lab
- Basic Computer Skills
- Electrical Wiring Lab

### Semester II

- Applied Mathematics-II
- English Communication
- Electrical Circuits
- Electronics - I
- Computer Aided Engineering Drawing
- Electrical Circuit
- Lab
- Electronics - I Lab

### Semester III

- Electrical Machines - I
- Communication & Computer Networks
- Electrical & Electronics Measurements
- Electronics - II
- Electrical Measurements Lab
- Electronics Lab -II
- Computer Aided Electrical Drawing

### Semester IV

- Electrical Machines - II
- Electrical Power Generation
- Transmission & Distribution
- Power Electronics
- Electrical Machines Lab
- Power Electronics Lab
- C - Programming

### Semester V

- Estimation & Specification
- Switch Gear & Protection
- Elective
- Electrical Workshop Lab
- Elective Lab
- CASP
- Project Work - I

### Semester VI

- Industrial Drives & Control
- Utilization of Electrical Energy & Management
- Basic Management Skills & Indian Constitution
- Electric Motor Control Lab
- PLC & HDL Lab
- Project Work
- Industrial Visit





## Diploma in Automobile Engineering\*

### Semester I

- Applied Science
- Applied Mathematics-I
- Automotive Engines

- Engineering Graphics
- Automobile Workshop Practice
- Applied Science Lab

### Semester II

- Applied Mathematics-II
- Basic Electrical & Electronics Engg.
- English Communication
- Automotive Engine Auxiliary Systems

- Computer Aided Engineering Graphics
- Basic Computer Skills Lab
- Automotive Engine Auxiliary Systems Lab

### Semester III

- Engineering Mechanics & Strength Of Materials
- Thermal Engineering
- Manufacturing Technology
- Chassis & Transmission

- Workshop Practice
- Repair & Maintenance Lab
- CAD Practice

### Semester IV

- Mechanics Of Machines
- Hydraulic & Pneumatic Controls
- Auto Electrical & Electronics Systems
- Fuels & Pollution Control

- Machine Shop
- Auto Electrical & Electronics Systems Lab
- Material Testing & Measurements Lab

### Semester V

- Basic Management Skills & Indian Constitution
- Machine Design
- Modern Automotive Systems
- Vehicle Management & Estimation

- Modern Automotive Systems Lab
- Parametric Modeling
- CASP
- Project Work
- Driving Practice

### Semester VI

- Autotronics
- Automotive Mechanics
- Body Engineering & Earth Movers

- Engine Reconditioning Lab
- Engine Testing Lab
- Project Work & Industrial Visit
- Driving Practice



#### Industry Visits by Mechanical and Civil Engineering Departments

- National Aerospace Laboratories (NAL)
- Wheel and Axle Plant
- Shoba Developers Project Sites
- Hindustan Aeronautics Limited (HAL)
- Defence Research and Development Organisation (DRDO)

## Bachelor in Civil Engineering

### Semester III

- Engineering Mathematics -III
- Building Materials and Construction Technology
- Strength of Materials
- Surveying - I
- Fluid Mechanics
- Applied Engineering Geology

- Civil Engg. Material Testing Laboratory
- Surveying Practice - I

### Semester IV

- Engineering Mathematics -IV
- Concrete Technology
- Structural Analysis - I
- Surveying - II
- Hydraulics and Hydraulic Machines
- Building Planning & Drawing

- Surveying Practice-II Laboratory
- Applied Engineering Geology Laboratory

### Semester V

- Management & Entrepreneurship
- Design of RCC Structural Elements
- Structural Analysis - II
- Geotechnical Engineering - I
- Hydrology and Irrigation Engineering
- Transportation Engineering - I
- Hydraulics and Hydraulic Machinery Lab
- Computer Aided Design Lab

- Geotechnical Engineering Lab
- Extensive Survey Viva Voce

### Semester VI

- Environmental Engineering - I
- Design & Drawing of RC structures
- Transportation Engineering - II
- Geotechnical Engineering - II
- Hydraulic Structures and Irrigation
- Design-Drawing
- Elective-I

- Geotechnical Engineering Lab
- Extensive Survey Viva Voce

### Semester VII

- Environmental Engineering - II
- Design of Steel Structures
- Estimation and Valuation
- Design of Pre Stressed Concrete Structures
- Elective-II
- Elective-III

- Environmental Engineering Lab
- Concrete and Highway Materials Lab

### Semester VIII

- Advanced Concrete Technology
- Design and Drawing of Steel Structures
- Elective-IV
- Elective-V

- Project Work
- Seminar





## Bachelor in Computer Science & Engineering

### Semester III

- Engineering Mathematics – III
- Electronic Circuits Lab
- Logic Design
- Discrete Mathematical Structures
- Data Structures with C
- Unix and Shell Programming

- Data Structures Lab
- Electronic Circuits & Logic Design

### Semester IV

- Engineering Mathematics – IV
- Graph Theory and Combinatorics
- Analysis and Design of Algorithms
- Object Oriented Programming with C++
- Microprocessors
- Computer Organization

- Object Oriented Programming Lab
- Microprocessors Lab

### Semester V

- Software Engineering
- Systems Software
- Operating Systems
- Database Management Systems
- Computer Networks - I
- Formal Languages and Automata Theory

- Database Applications Laboratory
- Algorithms Laboratory

### Semester VI

- Management and Entrepreneurship
- Unix Systems Programming
- Compiler Design
- Computer Networks - II
- Computer Graphics and Visualization
- Elective

- Computer Graphics and Visualization Laboratory
- Systems Software and Compiler Design Laboratory

### Semester VII

- Object-Oriented Modeling and Design
- Software Architectures
- Programming the Web
- Embedded Computing Systems
- Elective

- Networks Laboratory
- Web Programming Laboratory
- Elective

### Semester VIII

- Advanced Computer Architectures
- System Modeling and Simulation
- Elective

- Project Work
- Seminar
- Elective



## Bachelor in Electronics & Communication Engineering

### Semester III

- Engg. Mathematics – III
- Analog Electronic Circuits
- Logic Design
- Network Analysis
- Electronic Instrumentation
- Field Theory

- Analog Electronics Lab
- Logic Design Lab

### Semester IV

- Engg. Mathematics – IV
- Microcontrollers
- Control Systems
- Signals & Systems
- Fundamentals of HDL
- Linear ICs & Applications

- Microcontrollers Lab
- HDL Lab

### Semester V

- Management and Entrepreneurship
- Digital Signal Processing
- Analog Communication
- Microwaves and Radar
- Information Theory & Coding
- Fundamentals of CMOS VLSI
- VLSI

- DSP Lab
- Analog Communication Lab + LIC Lab

### Semester VI

- Digital Communication
- Microprocessors
- Microelectronics Circuits
- Antennas and Propagation
- Operating Systems
- Elective-I

- Advanced Communication Lab
- Microprocessor Lab

### Semester VII

- Computer Communication Networks
- Optical Fiber Communication
- Power Electronics
- Embedded System Design
- Elective-II
- Elective-III

- VLSI Lab
- Power Electronics Lab

### Semester VIII

- Wireless Communication
- Digital Switching Systems
- Elective-IV
- Elective-V

- Project Work
- Seminar





## Bachelor in Mechanical Engineering

Semester III	<ul style="list-style-type: none"> <li>Engineering Mathematics – III</li> <li>Material Sc. &amp; Metallurgy /</li> <li>Mechanical Measurements &amp; Metrology</li> <li>Basic Thermodynamics</li> <li>Mechanics of Materials</li> <li>Manufacturing Process I (Fundamentals of Foundry and Welding)</li> <li>Computer Aided Machine</li> <li>Drawing / Fluid Mechanics</li> <li>Fluid Mechanics</li> </ul>	<ul style="list-style-type: none"> <li>Metallography &amp; Material Testing Lab / Mech. Measurements &amp; Metrology Lab</li> <li>Foundry &amp; Forging lab / Machine Shop</li> </ul>
Semester IV	<ul style="list-style-type: none"> <li>Engineering Mathematics – IV</li> <li>Material Sc. &amp; Metallurgy /</li> <li>Mechanical Measurements &amp; Metrology</li> <li>Applied Thermodynamics</li> <li>Kinematics of Machines</li> <li>Manufacturing Process II</li> <li>Computer Aided Machine Drawing /</li> <li>Fluid Mechanics</li> </ul>	<ul style="list-style-type: none"> <li>Metallography &amp; Material Testing Lab / Mech. Measurements &amp; Metrology Lab</li> <li>Foundry &amp; Forging lab / Machine Shop</li> </ul>
Semester V	<ul style="list-style-type: none"> <li>Management and Entrepreneurship</li> <li>Design of Machine Elements I</li> <li>Energy Engineering</li> <li>Dynamics of Machines</li> <li>Manufacturing Process III</li> <li>Turbo Machines</li> <li>Engineering Economics</li> </ul>	<ul style="list-style-type: none"> <li>Fluid Mechanics &amp; Machines Lab</li> <li>Energy Conversion Engg. Lab</li> </ul>
Semester VI	<ul style="list-style-type: none"> <li>Computer Integrated Manufacturing</li> <li>Design of Machine Elements II</li> <li>Heat &amp; Mass Transfer</li> <li>Finite Element Methods</li> <li>Mechatronics &amp; Microprocessor</li> <li>Elective A</li> </ul>	<ul style="list-style-type: none"> <li>Heat &amp; Mass Transfer Lab</li> <li>CAMA Lab</li> </ul>
Semester VII	<ul style="list-style-type: none"> <li>Economics</li> <li>Mechanical Vibrations</li> <li>Hydraulics and Pneumatics</li> <li>Operations Research</li> <li>Elective B</li> <li>Elective C</li> </ul>	<ul style="list-style-type: none"> <li>Design Lab</li> <li>CIM and Automation Lab</li> </ul>
Semester VIII	<ul style="list-style-type: none"> <li>Operations Management</li> <li>Control Engineering</li> <li>Elective D</li> <li>Elective E</li> </ul>	<ul style="list-style-type: none"> <li>Project Work</li> <li>Seminar</li> </ul>

### Technical Talks from Industry Experts in Mechanical and Civil Engineering

- Automobile Industry
- CAD/CAM/CAE Design Centers
- Geographic Information Systems
- PLM solutions



## Bachelor in Aeronautical Engineering\*

Semester III	<ul style="list-style-type: none"> <li>Engineering Mathematics-III</li> <li>Material Science and Metallurgy</li> <li>Basic Thermodynamics</li> <li>Mechanics of Materials</li> <li>Manufacturing Processes</li> <li>Computer Aided Machine Drawing</li> </ul>	<ul style="list-style-type: none"> <li>Metallographic &amp; Material Testing Lab</li> <li>Foundry &amp; Forging Laboratory</li> </ul>
Semester IV	<ul style="list-style-type: none"> <li>Engg. Maths – IV</li> <li>Measurements &amp; Metrology</li> <li>Applied Thermodynamics</li> <li>Kinematics of Machines</li> <li>Elements of Aeronautics</li> <li>Fluid Mechanics</li> </ul>	<ul style="list-style-type: none"> <li>Mechanical Measurements &amp; Metrology</li> <li>Machine Shop</li> </ul>
Semester V	<ul style="list-style-type: none"> <li>Management and Entrepreneurship</li> <li>Introduction to Composite Materials</li> <li>Dynamics of Machines</li> <li>Aerodynamics – I</li> <li>Aircraft Propulsion</li> <li>Aircraft Structures – I</li> </ul>	<ul style="list-style-type: none"> <li>Aerodynamics Lab</li> <li>Energy Conversion Lab</li> </ul>
Semester VI	<ul style="list-style-type: none"> <li>Applied Gas Dynamics</li> <li>Aircraft Performance</li> <li>Aerodynamics – II</li> <li>Finite Element Analysis</li> <li>Theory of Vibrations</li> <li>Elective - I</li> </ul>	<ul style="list-style-type: none"> <li>Structures Lab</li> <li>Propulsion Laboratory</li> </ul>
Semester VII	<ul style="list-style-type: none"> <li>Control Engineering</li> <li>Aircraft Structures - II</li> <li>Aircraft Stability and Control</li> <li>Gas Turbine / Technology</li> <li>Electives II</li> <li>Electives III</li> </ul>	<ul style="list-style-type: none"> <li>Design, Modeling and Analysis Laboratory</li> <li>Simulation Laboratory</li> </ul>
Semester VIII	<ul style="list-style-type: none"> <li>Flight Vehicle Design</li> <li>Avionics</li> <li>Electives IV</li> <li>Electives V</li> <li>Project Work</li> <li>Seminar</li> </ul>	





## M. TECH : Civil Engineering Construction Technology

Semester I	<ul style="list-style-type: none"> <li>Quantitative Methods in Construction</li> <li>Construction Planning and Control</li> <li>Advances in Construction Materials</li> <li>Structural Masonry</li> <li>Component Assessment Lab &amp; Software Applications</li> </ul> <b>Elective-I :</b> - Energy and Buildings - Structural Dynamics - Advanced Design of Foundations
Semester II	<ul style="list-style-type: none"> <li>Construction Economics &amp; Finance</li> <li>Mechanization in Construction</li> <li>Construction Quality and Safety</li> <li>Advanced Reinforced Concrete Design</li> <li>Technical Seminar</li> </ul> <b>Elective-II :</b> - Remedial Engineering - Pavement Design & Construction - Soil Exploration & Ground Improvement Techniques
Semester III	<ul style="list-style-type: none"> <li>Construction and Contract Management</li> <li>Project work Phase I</li> </ul> <b>Elective-III :</b> - Prestressed Concrete Design - Building Science - RS and Applications of GIS in Civil Engineering <b>Elective-IV :</b> - Building Services & Maintenance - Reuse and Recycle Technology - Design of Earthquake Resistant Structures
Semester IV	<ul style="list-style-type: none"> <li>Project work Phase II</li> <li>Project work Phase III</li> <li>Project work Evaluation and Viva Voce</li> </ul>

## M. TECH : Mechanical Engineering Machine Design

Semester I	<ul style="list-style-type: none"> <li>Applied Mathematics</li> <li>Finite Element Method</li> <li>Theory of Elasticity</li> <li>Experimental Stress Analysis</li> <li>Elective-I</li> <li>Seminar</li> </ul>	Semester II	<ul style="list-style-type: none"> <li>Composite Material Technology</li> <li>Advanced Machine Design</li> <li>Dynamics &amp; Mechanism Design</li> <li>Advanced Theory of Vibrations</li> <li>Elective-II</li> <li>Project Phase-I</li> <li>Seminar</li> </ul>
Semester III	<ul style="list-style-type: none"> <li>Tribology and Bearing Design</li> <li>Elective-III</li> <li>Elective-IV</li> <li>Project Phase-II (5 Week Duration)</li> <li>Evaluation on Project Phase-I</li> </ul>	Semester VI	<ul style="list-style-type: none"> <li>Evaluation on Project Phase-II</li> <li>Evaluation of Project work</li> <li>Project Work Evaluation &amp; Viva-Voce</li> </ul>



## M. TECH : Civil Engineering Structural Engineering

Semester I	<ul style="list-style-type: none"> <li>Computational Structural Mechanics</li> <li>Advanced Design of RCC Structures</li> <li>Mechanics of Deformable Bodies</li> <li>Structural Dynamics</li> <li>Elective-I Seminar</li> </ul>	Semester II	<ul style="list-style-type: none"> <li>Design of Plates &amp; Shells</li> <li>Earthquake Resistant Structures</li> <li>Finite Element Method of Analysis</li> <li>Design concepts of Substructures</li> <li>Elective-II Project Phase-I Seminar</li> </ul>
Semester III	<ul style="list-style-type: none"> <li>Optimization Techniques</li> <li>Elective-III</li> <li>Elective-IV</li> <li>Project Phase-II (5week duration)</li> <li>Evaluation on Project Phase-I</li> </ul>	Semester VI	<ul style="list-style-type: none"> <li>Evaluation of Project Phase-II</li> <li>Evaluation of Project Work</li> <li>Project work evaluation and Viva-Voce</li> </ul>

## M. TECH : Electronics & Communication Engineering VLSI Design & Embedded System

Semester I	<ul style="list-style-type: none"> <li>CMOS VLSI Design</li> <li>SoC Design</li> <li>Advanced Embedded system</li> <li>VLSI Design Verification</li> <li>Elective-I</li> <li>Mini project and seminar</li> </ul>	Semester II	<ul style="list-style-type: none"> <li>Design of analog &amp; Mixed mode</li> <li>VLSI circuits</li> <li>Real time Operating System</li> <li>Advanced Microcontrollers</li> <li>Elective-II</li> <li>Miniprojects</li> </ul>
Semester III	<ul style="list-style-type: none"> <li>CMOS RF Circuit Design</li> <li>Elective-III</li> <li>Elective-IV</li> <li>Evaluation of Project Phase -I</li> </ul>	Semester IV	<ul style="list-style-type: none"> <li>Evaluation of Project Phase-II</li> <li>Evaluation of Project Phase-III</li> <li>Evaluation of Project work and Viva-Voce</li> </ul>

## M. TECH : Electronics & Communication Engineering Signal processing

Semester I	<ul style="list-style-type: none"> <li>Linear algebra</li> <li>Statistical Signal Processing</li> <li>Audio and Speech Processing</li> <li>DSP Algorithm and Architecture</li> <li>Elective-I</li> <li>Mini Project and seminar</li> </ul>	Semester II	<ul style="list-style-type: none"> <li>Digital Signal Compression</li> <li>Modern DSP</li> <li>Modern spectral analysis and Estimation</li> <li>Real time Digital Signal Processor</li> <li>Elective-II Mini Projects</li> </ul>
Semester III	<ul style="list-style-type: none"> <li>Image and video processing</li> <li>Elective-III</li> <li>Elective-IV</li> <li>Evaluation of Project Phase-I</li> </ul>	Semester VI	<ul style="list-style-type: none"> <li>Evaluation of Project Phase -II</li> <li>Evaluation of Project Phase -III</li> <li>Evaluation of Project work and Viva-Voce</li> </ul>





## M. TECH : Mechanical Engineering Computer Integrated Manufacturing

### Semester I

- Applied Mathematics
- Finite Element Method
- Computer Aided Design
- Computer Control of Manufacturing Systems
- Elective-I
- Seminar

### Semester II

- Advanced Material Technology
- Flexible Manufacturing Systems
- Management Information Systems
- Non Traditional Machining
- Elective-II
- Project Phase-I
- Seminar

### Semester III

- Experimental Techniques
- Elective-III
- Elective-IV
- Project Phase-II( 5 Week Duration)
- Evaluation on Project Phase-I

### Semester IV

- Evaluation on Project Phase-II
- Evaluation of Project work
- Project Work Evaluation & Viva-Voce

## M. TECH : Computer Science & Engineering Computer Network Engineering

### Semester I

- Advanced Digital Communication
- Computer Networks
- Network Programming
- Information Security
- Seminar
- Elective I
- Elective I : - Stochastic Models and Applications**
- System Modeling and Simulation

### Semester II

- Wireless & Mobile Networks
- Client-Server Programming
- Optical Networks
- Switching & Statistical Multiplexing in Telecommunications
- Elective II
- Project Phase I
- Seminar
- Elective II**
- Distributed systems
- Computer Systems Performance Analysis
- Web Engineering

### Semester III

- Network Management
- Elective III ■ Elective IV
- Project Phase-II
- Evaluation of Project Phase I
- Elective III**
- Protocols Engineering
- Topics in Multimedia Communications
- Advances in Storage Area Networks
- Elective IV**
- Wireless Sensor Networks
- Advances in Digital Image Processing
- Topics in Analysis of Computer Networks

### Semester IV

- Evaluation of Project Phase II
- Evaluation of Project Phase III
- Project work Evaluation and Viva-Voce



## General Rules

- All the students should be present on the reopening day.
- Students are to be punctual and regular for lecture classes and submit assignments, records, homework etc., in time.
- Regularity, obedience, courtesy in speech and conduct, respect for elders, cleanliness in dress and person is expected from every student.
- Students are to maintain strict silence in the classes and labs and must not wander about.
- Students are encouraged to maintain good progress and conduct.
- Students are expected to develop the habit of wishing Inmates, Faculty and Elders.
- Students are to equip themselves with approved drawing materials, instrument boxes and record notebooks as required.
- Nobody should sit on the corridor walls.
- Give way to teachers, staff and visitors while moving in the corridors, on the staircases and other places in the campus.
- Behave in such a manner that suits a cultured engineer.

Ragging in any form is illegal and is strictly forbidden. Severe action will be taken against those who indulge in ragging, strike or any such undesirable activities. Govt. of Karnataka has banned Ragging in Educational Institutions by passing government Order.

### Hence any one indulging in Ragging will be punished as follows:

- Imprisonment up to a term of 2 years
- A fine up to Rs. 10,000/-
- Student convicted for Ragging will be dismissed from the Institution and shall not be admitted to any other Educational Institution
- Hence all students particularly the senior students have been advised not to indulge in Ragging but to rise up totally against this evil.
- Students are required to wear their Identity Cards whenever they are in the college campus and also when they travel using the college transport. Not wearing the identity card will be considered an act of indiscipline.
- All students are expected to fill the student file which will be supplied to them after they joining the college. These files form a record of their progress and achievements throughout their study in the college.
- Students have follow the Lab dress code in the respective Laboratory.
- Lab equipments should be handled carefully with precaution as per laid down instructions. Students will have to pay for the breakages, if any.
- Safety Norms are to be adopted in the day to day working.
- Any malfunctioning and damage of equipments must be informed to lab instructors.
- Prior permission is required from lab-in-charge for doing experiments/Project work in extra lab hours.
- Students are expected to submit the records in respect of previous experiment when they come for the next laboratory class.
- Students should not miss theory classes and are not to visit the labs/Internet during lecture hours.
- The observation notebooks should be ready before the commencement of any experiment students should get the readings/calculations/result approved by the end of the lab session.





- Male students should wear trousers and tucked-in shirts with collar. T-Shirts and Jeans are not permitted. Indecent buckles in belt are not allowed. Female students are expected to wear Salwar kameeze or Chudidhars with duppattas neatly pinned. Half sarees, skirts, jeans, frocks or any other indecent tight fitting dresses are not permitted.
- No loose Garments are permitted in the workshop/Laboratories. Footwear used should be securely strapped at the heel. All students have to wear leather shoes in the workshops and also overcoats/uniform as needed. Wearing Hawaii slippers is prohibited from the point of view of safety and decency.
- A candidate will be permitted to appear for the VTU examinations, only if he/she.
- Puts in the required attendance.
- Maintains satisfactory academic progress and
- Maintains good conduct/character.
- Attendance in Unit Tests, Internals and model examinations is compulsory.
- Leave will be granted in exceptional cases for valid reasons like hospitalizations.
- The original certificates submitted by students at the time of admission to the college will be returned after completion of the course. The course completion certificate, transfer certificate and conduct certificates will be issued only when the students complete the course satisfactorily and leave the college.
- Cell-phones are not allowed in college premises. Failure to adhere to this instruction will lead to disciplinary action/Fine of Rs.500/-will be charged.
- Smoking/chewing tobacco, spitting is strictly forbidden in the college & Hostel premises.]
- The use of alcohol and drugs are strictly prohibited. A student found using or having used alcohol, drinks, drugs or any other intoxicants will be summarily dismissed from the college.
- Students are advised to participate in in-house/outside conferences and seminars and present technical papers with the guidance and prior permission of HOD/Principal.
- Loss/Theft of ID Cards/Library cards and change of address or contact Telephone Numbers should be informed to HOD/College Office without delay. fine of Rs.100/- will be charged.



► Students from Arunachal Pradesh.



## Attendance and Leave

- The attendance rules are given below and will be strictly followed.
- Below 85%: Not permitted to appear for VTU Examinations. Detained in the respective year/semester of the course and to repeat the course next year.
- 85% and above: Allowed to appear for VTU Examinations and proceed to next semester.
- A student who is continuously absent for 15 days without a valid reason will be removed from the rolls of the College.
- Remaining absent from the Institute without prior permission of the authority is strictly prohibited.
- The students involved in common off (mass bunking) are liable to heavy fine, and Punishment decided by the Institute from time to time.
- The students involved in common off or having less attendance in class shall be expelled from the hostel. The authorities will lose sympathy towards such students.
- Leave letters should be counter signed by parents/guardians/ hostel warden.
- Leave letters on medical grounds should be accompanied by medica certificate.
- Medical Certificates, if necessary, will be verified and the decision of the principal is final.
- Generally prior permission should be obtained, before availing leave.
- Whenever prior permission could not be obtained, the leave letter should be submitted within 2 days after reporting to the college or within 4 days from the commencement of leave whichever is earlier.
- Students who are participating in state/national/inter College level sports. They should get prior permission from principal followed by physical education director. The number of day's permission can be given per students is under VTU norms only.
- **Academic progress:** 70% or more marks in each subject will be considered as satisfactory performance in class tests and model examinations. If the performance is not satisfactory student may be prevented from appearing for University examination.
- **Internal Assessment marks:** Internal Assessment of 25 marks will be calculated based on the marks scored in the Unit Tests/Internals/ Assignments / Class works/ Attendance.
- If the students have not completed assignment (subject wise), attendance will not be given till they submit the assignment.
- The cases of students who have poor academic performance or inadequate attendance will be reviewed at staff council meeting every week/Month such students will be counseled. If the poor perform an cecontinues they will not be recommended for campusplacement/given letter of recommendations for higher studies etc.





## Library Rules

- Students and Staff have to sign in the register when entering the library.
- A maximum of two books can be borrowed from the Library at any time, books will be issued only if the staff/student produces his/her ID Card to the Librarian.
- Personal books and files are not to be taken inside the Library, and are to be placed in the bag rack in the library.
- Books issued should be returned within 7 days.
- Books issued are to be returned within the due date, over due charge is Rs. 2/- per day per book.
- Maintain silence and discipline in the library, mobiles are not allowed in the college and will be confiscated if found.
- Reference, Management and Humanities books are not for circulation.
- Rs. 1000 refundable deposit has to be paid during the admission time.
- Do not make any mark with pen/pencil in the books; do not fold/tear the pages.
- The issued books will be checked for damages on return, the student/staff are liable to pay fines for damages.
- If any book is reported lost after borrowing then twice the cost of the book will payable as fine.
- The reference books taken from the shelves must be left on the table.

## Hostel Rules

- To use Water and Electricity economically in the institute/hostel.
- To Switch off the lights, fans, computers, equipments while going out of the room/ lab.
- To carry the identity card and produce on demand.
- Those who join hostels are to abide by rules/regulations of the hostel.
- Maintain general hygiene while in canteens and throw away wastes only in Dustbins.
- Observe timings for going to Canteens. During College hours, students must not visit canteens.
- Not to write on benches, walls or doors.
- To throw the garbage only in the dustbins.
- To keep our campus neat and clean.
- Observe speed limits while riding /driving within the campus.



## Extra Curricular Activities



▶ Electronics & Communication Engineering-Project.



▶ Computer Science & Engineering-Project.



▶ Civil Engineering-Project.



▶ Mechanical Engineering Project-1.



▶ Seminar Hall



▶ Mechanical Engineering Project -2.



▶ Inauguration.

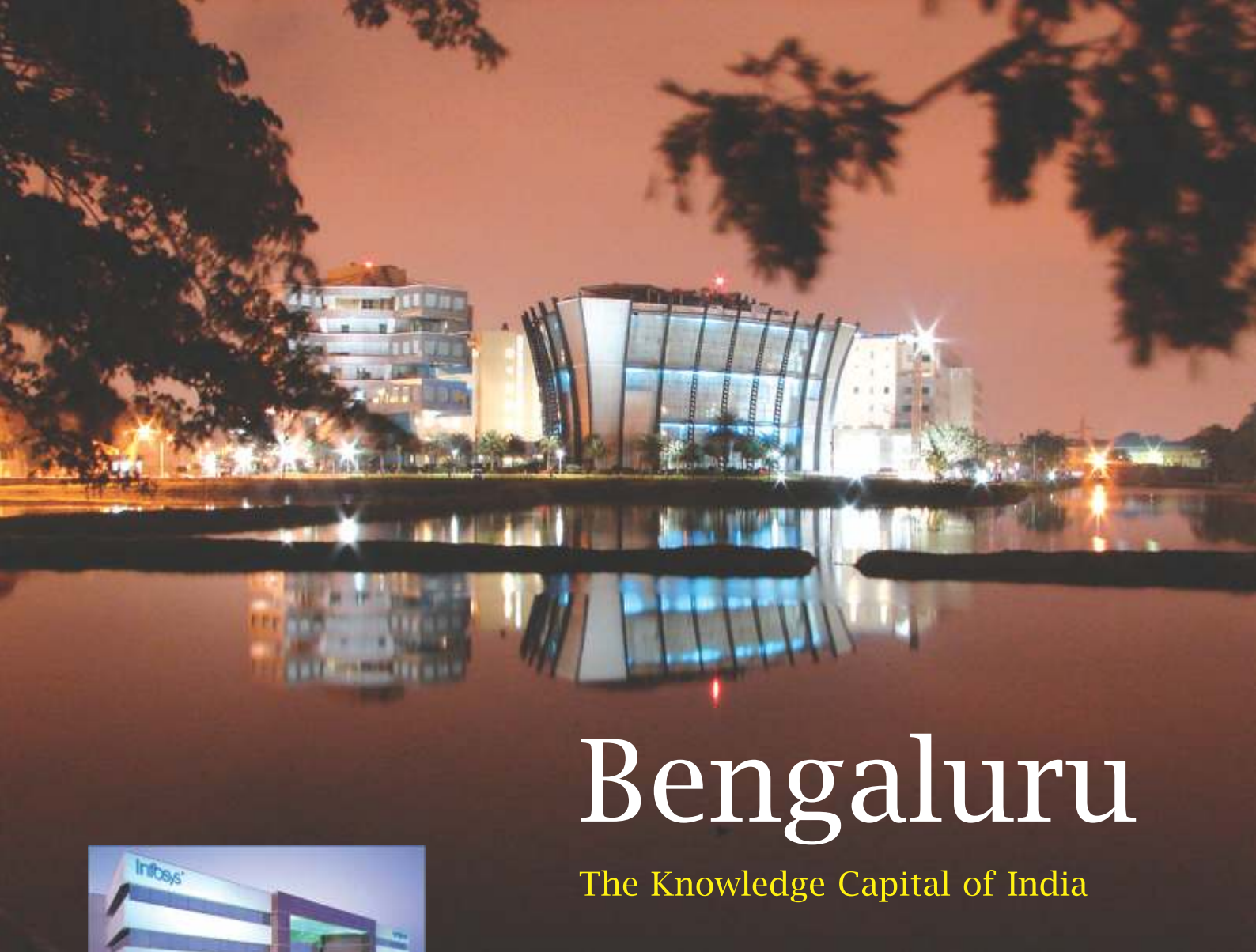


▶ Smt. Achala Joshi



▶ Cultural activities.





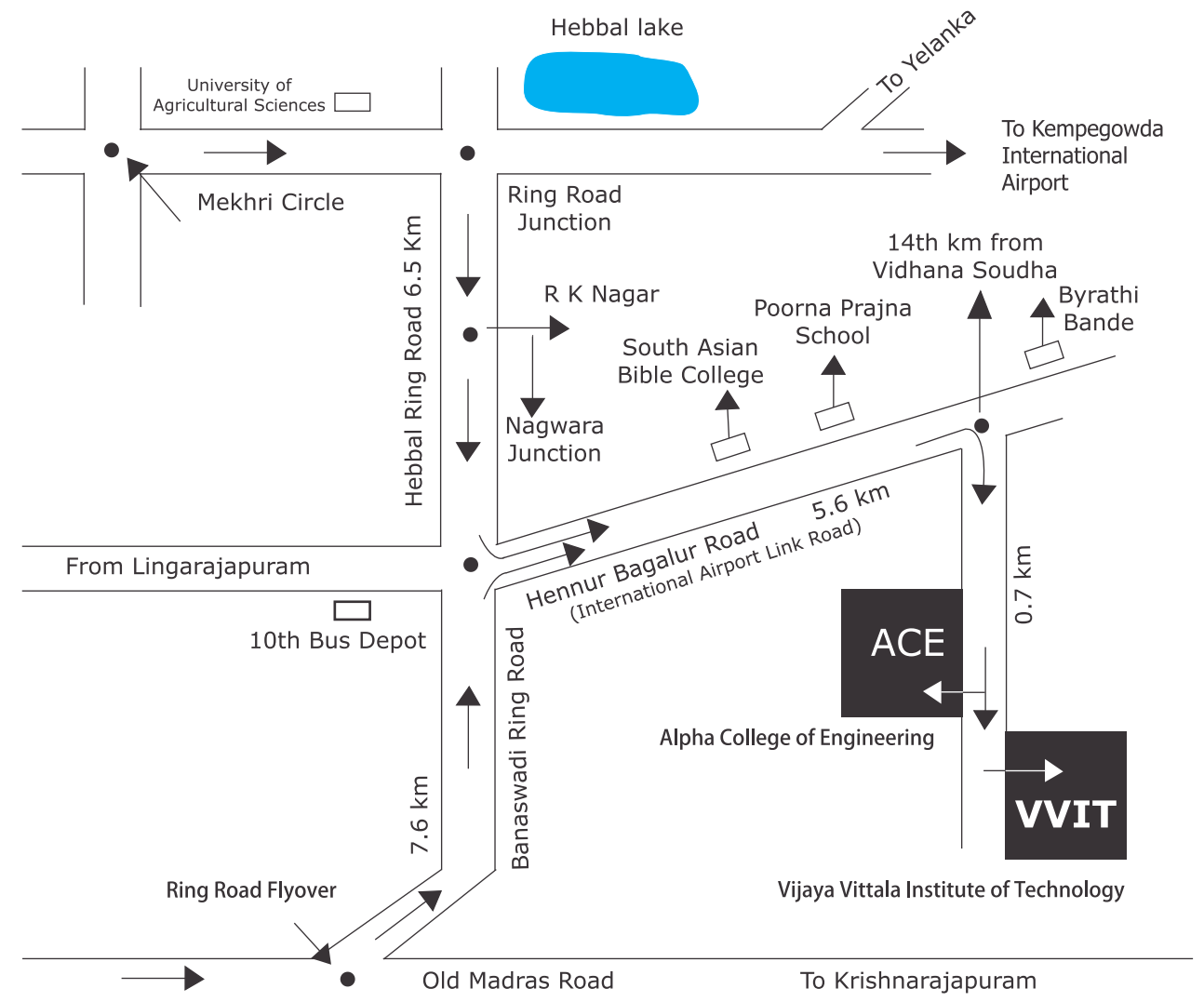
# Bengaluru

The Knowledge Capital of India



Bengaluru is regarded as one of India's safest cities and is rich in history, culture, diversity and activity. Bengaluru, once known primarily for its climate and beautiful gardens, has over the years transformed into a breathtaking landscape of premier research institutions and global majors engaged in hi-tech industries of Space Research, Satellite Technology, Software and Hardware Design Centres, even while retaining and preserving all its old world charm.

Bengaluru is leading the country into the twenty-first century with booming software exports, and it has put India firmly on the world map of cutting edge technology and rightly called the Knowledge Capital of India.



## BMTC ROUTE NUMBERS:

City Bus Station (Majestic): 296, 296A, 296N

KR Market: 293, 293B, 294D

Shivaji Nagar: 293G

