

SHRI MADHWA VADIRAJA INSTITUTE  
OF TECHNOLOGY AND MANAGEMENT  
(A Unit of Shri Sode Vadiraja Mutt Education Trust®, Udupi)



15

YEARS OF  
EXCELLENCE

**ENGINEERING  
YOUR CAREER &  
CHARACTER  
WITH CARE**

PROSPECTUS



# ABOUT SMVITM

Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, situated in Udupi district, has been at the forefront of providing quality higher education in the coastal Karnataka region. The institute, with roots dating back 700 years to the esteemed Shri Sode Vadiraj Mutt, takes pride in its commitment to excellence by offering a conducive learning environment and consistently updating the facilities to align with the latest trends and developments. SMVITM is affiliated to Visvesvaraya Technological University, Belagavi; approved by AICTE, New Delhi; and recognized by the Government of Karnataka. The institution is a pioneer in technical education, with NAAC accreditation and programmes with NBA accreditation. SMVITM offers a Bachelor programme in Computer Science & Engineering, Electronics & Communication Engineering, Artificial Intelligence and Data Science, Artificial Intelligence and Machine Learning, Mechanical Engineering, and MBA in Marketing, Finance and Human Resources. The institute is a certified member of professional societies like IEEE and ISTE. Despite its rural location, SMVITM has made remarkable strides in its journey towards excellence with distinguished learning-centric facilities and an emphasis on staying abreast of the latest industrial trends and academic practices.

## VISION

To be recognized as an eminent center of education imparting holistic knowledge.

## MISSION

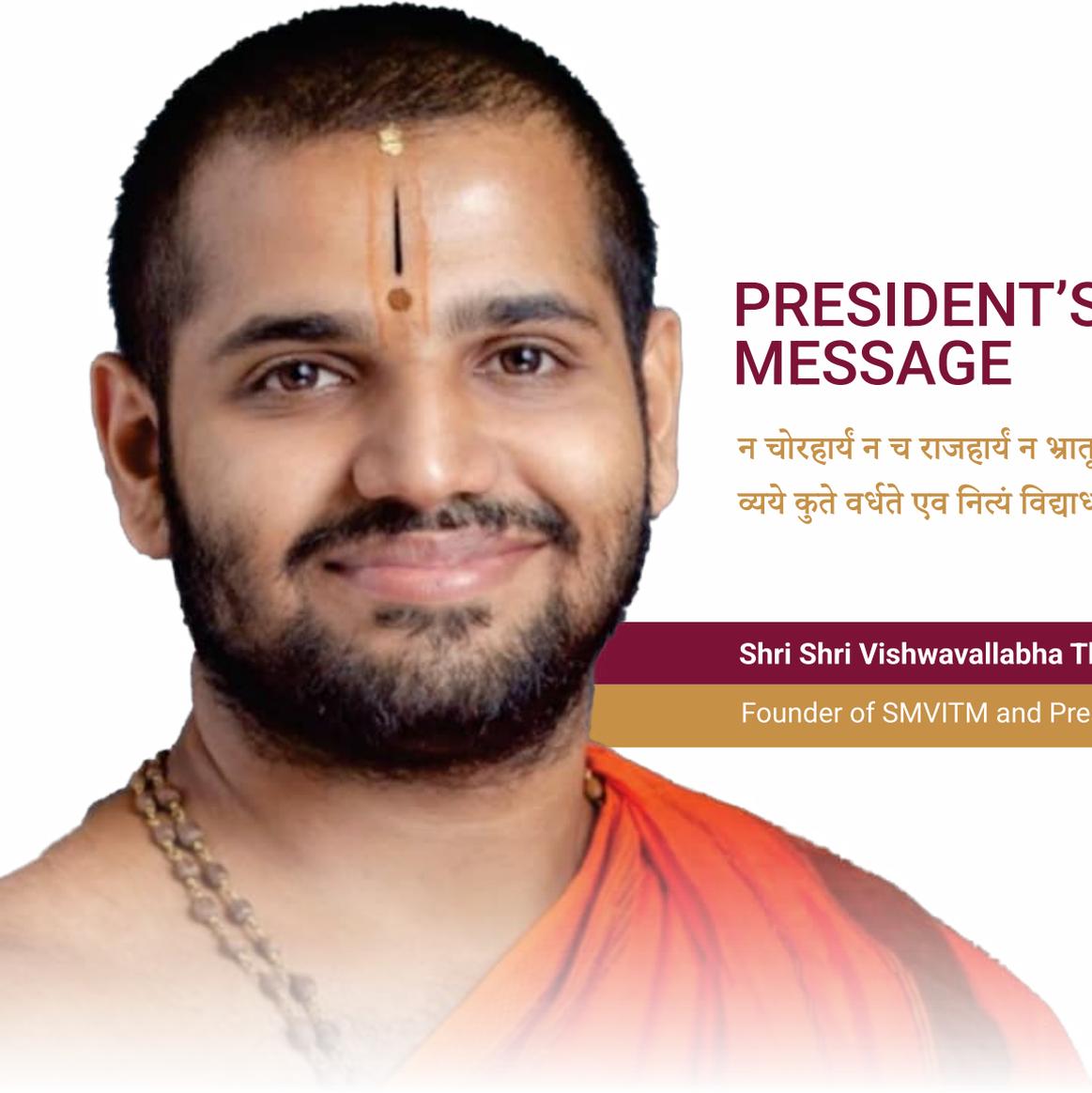
- ◆ Develop transformational leaders in technology, research, and innovation through integrated education to meet societal needs.
- ◆ Disseminate knowledge by providing a conducive academic ambiance at affordable costs.
- ◆ Nurture all-around personality development and impart value-based education founded on the tenets of humanity, integrity, ethics, and sustainability.

## OBJECTIVES

- ◆ To create a transparent and attractive academic environment that encourages the pursuit of excellence and free from commercial interests and questionable practices.
- ◆ To inculcate in the students and the teachers, a scientific temper and a spirit of enquiry.
- ◆ To develop and nurture a value-based, but thoroughly professional educational system in which the teacher and the student alike are at their innovative best at all times, encouraging each other to keep pace with the ever-expanding frontiers of knowledge.
- ◆ To make a significant contribution towards the growth of a healthy society through pioneering education and effective industry- institute interactions.
- ◆ To be the role model in higher education and the most preferred choice of students, faculty and industry.

## CORE VALUES

- ◆ Discipline
- ◆ Determination
- ◆ Dedication
- ◆ Integrity & Trust
- ◆ Humanity
- ◆ Ethics
- ◆ Sustainability
- ◆ Interest & Involvement



## PRESIDENT'S MESSAGE

न चोरहार्यं न च राजहार्यं न भ्रातृभाज्यं न च भारकारि  
व्यये कुते वर्धते एव नित्यं विद्याधनं सर्वदनप्रधानं ॥

**Shri Shri Vishwavallabha Theertha Swamiji**

Founder of SMVITM and President

Education or knowledge is such a unique wealth which no robber can rob, no king can capture, nor can it be divided among siblings. Most importantly, the more it is used, the more it increases.

Today we all are living in a technology-led era. The gadgets which are outputs of technological innovations are a part of our daily lives. It is very difficult to imagine even a single day without these gadgets. This Institution was established with the realization of the importance of these technological advancements, and to encourage as many students to use this knowledge towards innovations and contribute to the betterment of society. SMVITM aims to ensure a holistic and value-based education to the students by providing staff-of-the-art infrastructure & facilities along with a well-qualified and experienced team of teaching and non-teaching staff.

We wish the interested and deserving students to make the best use of the facilities provided at SMVITM and become pioneers in the domain of technology in the days to come.

**May God bless you all!**

# TRUST MEMBERS



**Shri Shri Vishwvallabha Theertha Swamiji**  
Founder of SMVITM and President.



**Shri P. Srinivas Tantry**  
Diwan - Sode Shri Vadiraja Matha  
& Vice President of  
Shri Sode Vadiraja Mutt Education  
Trust (SSVMET)



**Shri Rathnakumar**  
Secretary - SSVMET



**Shri H. V. Gowthama**  
Chartered Accountant  
at Bengaluru



**Prof. B. S. Revankar**  
Former Director,  
NITK-STEP

# GOVERNING COUNCIL MEMBERS



**Shri Shri Vishwvallabha Theertha Swamiji**  
Chairman



**Prof. Udipi Srinivas**  
Former Professor  
IISc. Bengaluru  
Trust (SSVMET)



**Justice R Gururajan**  
Former Judge  
High Court of Karnataka



**Prof. S G Gopalakrishna**  
Director, Nagarjuna  
Engineering College.  
Bengaluru



**Shri B Y Rajeshwar Singh**  
Industrialist, Bellary



**Prof. Gopala Mugeraya M**  
Vice President (Technical  
Education), NITTE(DU), NITTE  
Education Trust



**Shri Sunder Madakshira**  
Head of Marketing,  
Adobe India



**Shri P Ramdas**  
MD - Ace Manufacturing  
System, Bengaluru



**Shri Nanda Kumar Upadhyaya**  
Assistant Commissioner  
of Central Taxes, Puducherry



**Prof. Radhakrishna S. Aithal**  
Former Director of ICAS, MAHE,  
Manipal



**Shri Jagadish Acharya**  
Chief Executive, JADE HEAD -  
Managers & Associates Mumbai



**Shri Sham Sunder**  
CEO & President, Paajaka  
Consultancy Services (PCS)



**Shri Harish Belman**  
Premier Investments,  
Udupi



**Dr. M. S. Moodithaya**  
Vice Chancellor,  
Nitte University



**Prof. Aswath M U**  
Principal,  
BIT Bengaluru



**Dr. P G Diwakar**  
ISRO Chair Professor  
School of Natural Sciences and  
Engineering



**Prof. Thirumaleshwara Bhat**  
Principal & Member Secretary,  
Consultancy Services (PCS)



**Prof. Ganesh Aithal**  
Vice Principal and  
Staff Representative

**The Director, AICTE,**  
South Western Regional Member,  
AICTE Representative

**Principal Secretary**  
Higher Education Dept.,  
GoK



**Shri Rathnakumar**

Secretary- Shri Sode Vadiraja Mutt Education Trust

## SECRETARY'S MESSAGE

It is with immense pride and enthusiasm that I welcome you to Shri Madhwa Vadiraja Institute of Technology and Management (SMVITM), Bantakal, a premier institution dedicated to academic excellence, holistic development, and technological innovation.

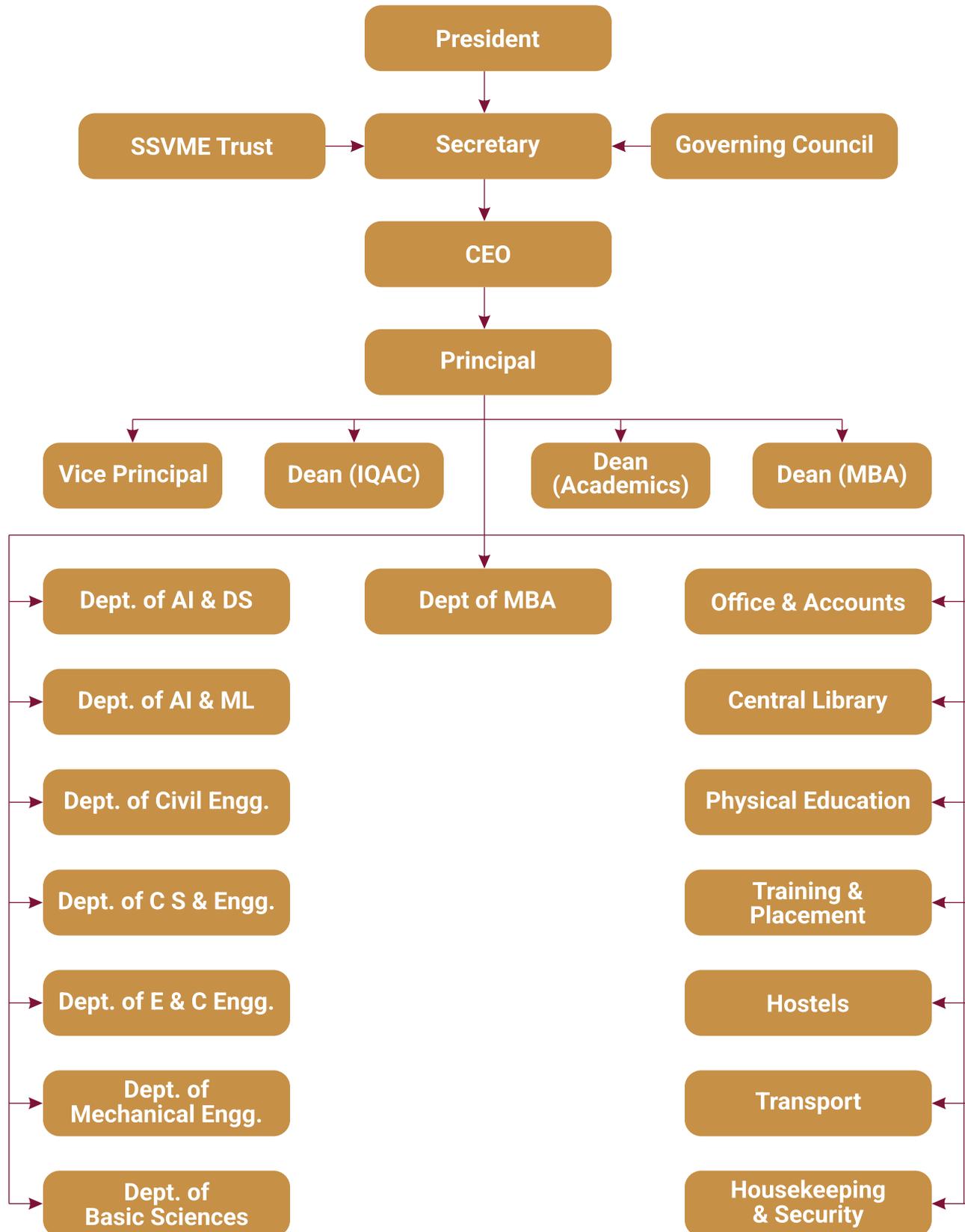
Guided by the visionary leadership of our esteemed president, H.H. Shri Vishwa Vallaba Theertha Swamiji, SMVITM stands as a beacon of learning, fostering an environment that nurtures intellect, creativity, and values. His unwavering support and commitment to education empower us to continually evolve, ensuring that our students receive the best possible opportunities to excel in their chosen fields.

At SMVITM, we offer state-of-the-art facilities, modern laboratories, advanced research centers, and a serene campus that provides the perfect setting for an enriching learning experience. Our dedicated faculty members and student-centric support systems ensure that every learner receives guidance, mentorship, and encouragement to achieve their aspirations.

We are committed to shaping professionals who are not only technically proficient but also socially responsible, industry-ready, and equipped to meet the challenges of an ever-evolving world. With a strong emphasis on innovation, research, and entrepreneurship, SMVITM opens doors to futuristic career opportunities, ensuring that our graduates stand out in the global landscape.

Join us at SMVITM, where knowledge meets excellence, values drive progress, and every student is empowered to build a promising future.

# ORGANISATION CHART



# CEO's MESSAGE



**Prof. Radhakrishna S Aithal**

The 21st-century world thrives on knowledge, innovation, and global competitiveness. Success in education and professional fields stems from creative thinking, systematic approaches, technological convergence, and effective knowledge dissemination. Academic institutions must become knowledge powerhouses, offering value-added education and fostering teamwork. Modern teaching-learning methodologies are essential to develop world-class professionals — those who embrace creativity, innovation, and continuous learning.

Shri Madhwa Vadiraja Institute of Technology and Management (SMVITM), established by Shri Sode Vadiraja Mutt Education Trust under the leadership of His Holiness Shri Vishwavallabha Theertha Swamiji, embodies this vision. It is dedicated to imparting quality education, nurturing talent, and fostering excellence.

SMVITM goes beyond conventional boundaries, creating an environment that promotes learning, professionalism, and personal growth. With a dedicated faculty, state-of-the-art infrastructure, and cutting-edge teaching methods, the institute equips students with the skills to excel. It emphasizes industry partnerships, faculty development, and continuous infrastructure upgrades.

The institute recognizes and nurtures creativity, ensuring students are prepared for future challenges. Parents can be assured that SMVITM offers the best facilities, personalized mentoring, and a strong foundation for their children's bright future. Here, we truly care for our students!

# PRINCIPAL'S MESSAGE



**Prof. Thirumaleshwara Bhat**

Dr. A.P.J. Abdul Kalam rightly said that education should create skilled and ethical individuals. While many institutions offer education, only a responsible one shapes students into well-rounded individuals. Shri Madhwa Vadiraja Institute of Technology and Management (SMVITM), Bantakal, Udupi, stands out in this regard by imparting value-based technical education.

Managed by Shri Sode Vadiraja Mutt Education Trust under the guidance of Shri Shri Vishwavallabha Theertha Swamiji, SMVITM has received an "A-grade" accreditation from the NBA. Remarkably, it is the only institution in coastal Karnataka to achieve this milestone within just eleven years.

SMVITM students excel in academics, project competitions, university-level sports, hackathons, and national contests, proving their holistic development. The institute emphasizes Outcome-Based Education (OBE) with project-based learning and strong industry collaborations. More than 15 industries/institutes support students in honing their technical and practical skills.

Scholarships for the needy, fee concessions for underprivileged students, mentoring programs, and interactions with alumni and industry experts further enhance student growth.

The college's motto, "Engineering Your Career and Character with Care," reflects its commitment to nurturing exceptional individuals ready to tackle challenges and achieve their dreams.

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## COURSES OFFERED

The institute offers four year undergraduate courses and post graduate course, leading to the award of Bachelor of Engineering (B.E.) degree and Master degree in the following disciplines:

<b>PG Course offered</b>	<b>Intake</b>
Master of Business Administration (MBA)	120
<b>UG (BE) Courses offered</b>	
Artificial Intelligence & Data Science Engineering	60
Artificial Interlligence & Machine Learning Engineering	60
Computer Science & Engineering	180
Electronics & Communication Engineering	120
Mechanical Engineering	60

All the courses are approved by AICTE, New Delhi & Institute is affiliated to VTU, Belagavi. Institute is accredited with A Grade by NAAC and a few programs are accredited by NBA New Delhi.

# GUIDING STARS OF OUR INSTITUTION



**Dr. Thirumaleshwara Bhat,**  
Professor and Principal



**Dr. Ganesh Aithal,**  
Professor and Vice Principal



**Dr. Suraj Francis Noronha,**  
Professor and Director,  
Department of Business  
Administration (MBA)



**Dr. Nagaraj Bhat,**  
Professor and Dean  
Academics



**Dr. Sudharshan Rao,**  
Professor and Dean Quality  
Assurance



**Mr. Arun Upadhyaya,**  
Associate Professor and In  
Charge Head of ECE  
Department



**Mr. Nagaraj Rao,**  
Associate Professor and In  
Charge Head of AI & DS  
Engg. Department



**Dr. Mamatha,**  
Associate Professor and  
HOD of AI & ML Engg.  
Department



**Dr. Sowmya Bhat,**  
Associate Professor and HOD  
of CSE Department



**Dr. Deepika B.V.,**  
Associate Professor and HOD  
of Civil Engg. Department



**Dr. Raja Yateesh Yadav,**  
Associate Professor and HOD  
of Mechanical Engineering  
Department



**Dr. Subbalakshmi N Karanth,**  
Associate Professor and HOD  
of Chemistry Department



**Dr. Lolita Priya Castalino,**  
Associate Professor and  
HOD of Mathematics  
Department



**Dr. Ravindra H J,**  
Professor and HOD of Physics  
Department



**Mr. Roshan S Kotian,**  
Assistant Professor and Head  
Training and Placement



**Mr. Deepak,**  
Librarian



**Mr. Paul Suraj,**  
Physical Director



**Mr. Ganesh S Shetty,**  
Sr. Asst. Professor and  
Hostel Warden

## ROAD MAP AHEAD

In its pursuit of holistic education and greater visibility, SMVITM envisions several initiatives over the next 2–3 years:

- Develop a Student Activity Centre to foster creativity and innovation.
- Initiate international collaborations through MOUs with foreign universities.
- Build modern labs and incubation centres for quality research and start-up development.
- Establish academic partnerships with reputed companies and research labs; promote the Professor of Practice scheme.
- Introduce Finishing Schools with alumni and industry support to bridge academia and industry.
- Encourage community engagement through local development projects.
- Promote online learning via Coursera, NPTEL, SWAYAM, etc.
- Strengthen Institute-Industry Interface through guest lectures, workshops, and interactive meets.
- Engage alumni in developmental activities and fundraising efforts.
- Host brand-building events like IEEE Conferences, Smart India Hackathon, TEDx, and technology summits.
- Enhance visibility through media presence and social media.
- Implement Smart Classrooms with interactive technology.
- Benchmark best practices from top institutes for sustained growth and higher rankings.



## Shaping Tomorrow's Leaders Today

The Department of Business Administration at SMVITM transcends traditional education to cultivate dynamic leaders for the ever-evolving business landscape. Nestled in a serene environment, our department is not merely an academic space; it is a vibrant community committed to nurturing holistic development, instilling Indic values, and fostering a spirit of innovation. With experienced faculty, state-of-the-art facilities, and a dedication to bridging academia and industry, we provide a transformative educational journey where academic excellence, values, and industry readiness converge. Join us on a path of growth, exploration, and preparation for success in the global business arena.

### About MBA

The Master of Business Administration (MBA) program at SMVITM spans two transformative years. Affiliated to Visvesvaraya Technological University (VTU), our MBA program is designed to nurture the skills required for success in today's dynamic business landscape. It serves as a crucial stepping stone for individuals looking to build a robust and fulfilling career, offering a blend of academic excellence, practical insights, and industry connections. Through this program, we empower our students to navigate challenges and emerge as confident, capable leaders in their respective fields.

### MBA Specializations

The MBA students can choose the Dual Specialisation in the 3rd and 4th Semester from the following:

- ◆ Marketing
- ◆ Finance
- ◆ Human Resources
- ◆ Business Analytics

### Program Educational Objectives (PEOs)

- ◆ **Two-Year Full-Time Program:** Designed to equip young minds with modern management skills for diverse sectors.
- ◆ **Leadership Development:** Focuses on building strategic thinking and leadership qualities.
- ◆ **Innovative Curriculum:** Offers academic flexibility to encourage creativity and innovation.
- ◆ **Industry Readiness:** Prepares students to adapt and thrive in today's dynamic business environment



## Admission Criteria

Admission to the Master of Business Administration (MBA) program at SMVITM requires candidates to hold a Bachelor's Degree with a minimum of 50% aggregate marks. Selection for Management seats is merit-based, and determined by performance in the group discussion and personal interview (GDPI). Accepted aptitude tests include KMAT (Karnataka Management Aptitude Test, <https://www.kmatindia.com/>), CAT, MAT or any other national-level management aptitude tests. Prospective students applying for management seats should use the college website at <https://www.sode-edu.in> to apply for the Management Seat. Upon online application, candidates will be invited to participate in the GDPI process.

For Government seats, admission involves an entrance test administered by the Post Graduate Common Entrance Test (PGCET), presently conducted by the Karnataka Examinations Authority (KEA). The admission advertisement typically appears on the KEA website ([kea.kar.nic.in](http://kea.kar.nic.in)) in June, though the notification may be released earlier. Eligible candidates can partake in centralized state-level counseling for seat allocation. During counseling, candidates must select Shri Madhwa Vadiraja Institute of Technology and Management (SMVITM), Bantakal, Udupi as their preferred option.



## Placement Facility

Our Placement Facility is dedicated to mentoring students to secure opportunities with companies aligned with their career aspirations. We provide personalized guidance to help each student navigate the recruitment process and achieve placements in organizations that match their skills and interests. Additionally, all students are encouraged to participate in campus drives, offering a broad spectrum of career opportunities across industries. For students aspiring to start their own businesses, our dedicated entrepreneurial mentors offer resources, guidance, and support to help transform ideas into successful ventures. Whether students are aiming for their dream job or pursuing entrepreneurship, our placement team is committed to their success.

At the Department of Business Administration, SMVITM, we envision shaping tomorrow's leaders today. Our program offers a gateway to global business excellence, where students not only gain academic knowledge but also the practical skills necessary to thrive in a dynamic world of business. Join us to unlock your full potential and chart a path towards a fulfilling career and personal growth.

Start Your Journey Today! For more details or to apply, contact our admissions team or visit our website. Join us at SMVITM and take the first step toward a transformative educational experience.

# DEPT. OF COMPUTER SCIENCE AND ENGINEERING

**Computer Science and Engineering (CSE)** is a dynamic and rapidly evolving field that significantly shapes modern technology and society. Its impact spans multiple domains, driving advancements in industries, research, and everyday life. With technology continually progressing, the demand for skilled and proficient professionals in Computer Science is higher than ever.

To address this growing demand, the Department of Computer Science and Engineering was established at SMVITM in 2010, offering a B.E. in Computer Science and Engineering. The department's programs are accredited by the National Board of Accreditation (NBA), while the institute holds accreditation from the National Assessment and Accreditation Council (NAAC). These accreditations validate the excellence of teaching, learning, and academic activities at both the institutional and departmental levels. The department ensures that every student actively engages in academic activities while also encouraging participation in extracurricular and co-curricular programs to foster overall personality development. With a strong focus on industry readiness, the department supplements the university prescribed curriculum with additional training programs throughout the course, equipping students with the skills needed for a successful career.

The department collaborates with esteemed professional organizations such as IEEE and ISTE, providing students with a platform to showcase their technical expertise and innovation. The student association, Code Troopers, organizes various activities to enhance students's technological skills. Students are encouraged to take on ambitious projects and publish their work in prestigious international journals. The department places a strong emphasis on practical education, ensuring that lab work effectively complements theoretical learning.

Events such as Codethon and Hackathon are conducted to foster creativity and strengthen design thinking skills. The department's faculty members are dedicated to preparing students for future challenges by equipping them with a strong foundation to excel in technology and contribute meaningfully to society. To further enrich learning, esteemed industry experts serve as Adjunct Faculty, offering specialized guidance in advanced



technological and research domains while mentoring both students and faculty. The department features cutting-edge, state-of-the-art laboratories designed to provide students with hands-on training in advanced programming and software development.

Graduates from the CSE department at SMVITM have a wide range of career opportunities across various sectors, including roles such as Software Developer, Full Stack Developer, Data Scientist, AI Researcher, Cloud Engineer, DevOps Engineer, Cybersecurity Analyst, Ethical Hacker, Research Scientist, and Professor. The department actively collaborates with industries to enhance placement opportunities for its students and has a strong track record in campus recruitment. Notable recruiters include HP, TCS, Cognizant, Infosys, Kyndryl, Accenture, Robosoft, Mangalore Infotech Solutions, Lekha Wireless, L&T, Meesho, and Ionidea.



# LABORATORY

## UNDER THE DEPT. OF CSE

### Programming Lab

- Python
- C Programming
- JAVA

### Data Structures and Algorithms Lab

- Analysis and Design of Algorithms
- Digital Design & Computer Organization
- Data structure
- Microcontroller

### Computer Networks Lab

- Computer Network
- Computer Graphics

### Machine Learning & Artificial Intelligence Lab

- Machine Learning
- Data visualization
- Artificial Intelligence

### Database Management Systems Lab

- Database Management System
- Operating System

### Web Technologies Lab

- Full stack web development
- React
- Mobile Application Development

### Cloud Computing Lab

- Cloud Computing with cloud platforms like AWS,
- Azure, and Google Cloud.
- Cybersecurity

### Project lab

# DEPT. OF ELECTRONICS & COMMUNICATION ENGINEERING

Electronics plays a vital role in modern life, powering devices like smartphones, computers, and medical equipment. Integrated into fields such as healthcare and automotive technology, it drives innovation. With emerging technologies like AI, IoT, and robotics, demand for skilled electronics and communication engineers continues to grow rapidly.



**Programs Offered:** B.E. and Ph.D. in Electronics and Communication Engineering.

**Industry-Relevant Curriculum:** Emphasizes applied sciences, mathematical modeling, logical reasoning, and system design.

**Outcome-Based Education:** Fosters creative thinking, problem-solving, and industry readiness.

**Established in 2010:** Offers a strong academic environment for technical excellence.

**Collaborative Platform:** Facilitates knowledge exchange among faculty, researchers, industry experts, and students.

**Career-Ready Graduates:** Produces skilled, knowledgeable, and adaptable ECE engineers.

**Global Impact:** Focus on technologies addressing modern and global challenges.

## Strengths of the Department

The department is driven by skilled, motivated faculty who adopt best academic practices from India and abroad. It regularly hosts seminars, workshops, and expert talks from reputed institutions and industries to keep students updated with the latest tech trends.

Innovative teaching methods like ICT-based learning, peer-to-peer sessions, experiential learning, MOOCs, flipped classrooms, and Google Classroom are integrated into the curriculum. Combined with seminars, projects, and industrial visits, these practices ensure strong subject understanding and industry readiness.



## Excellent Infrastructure

**Modern Infrastructure:** Spacious classrooms and fully equipped labs with blackboards, whiteboards, LCD projectors, and WiFi.

**Hands-On Learning:** Labs support practical training, open-ended experiments, and creativity beyond the syllabus.

**Industry Partnerships:** Collaborations with industries for hands-on training in embedded systems and VLSI tools.

**Internship Opportunities:** Access to short- and long-term internships with real-world project experience.

**Skill Development:** Encourages innovation, practical skills, and professional networking



## NBA and NAAC Accreditations

The programs offered by the department are accredited by the National Board of Accreditation (NBA), and the institute itself is accredited by the National Assessment and Accreditation Council (NAAC). These accreditations certify the quality of teaching, learning, and other academic activities, both at the institutional level and within the department.

## Career Opportunities and Placement

Graduates of the ECE program have diverse career opportunities in fields like embedded systems, VLSI, AI/ML, IoT, robotics, software development, and telecommunications. Many students secure placements in top core and IT companies before completing their B.E., with alumni working at IBM, Intel, Infosys, Amazon, and more.

A significant number also pursue higher studies at reputed institutions in India and abroad, ensuring a strong foundation for a successful future.



# DEPT. OF MECHANICAL ENGINEERING



The Department of Mechanical Engineering at SMVITM, established in 2010, offers a B.E. program with a focus on materials, solid mechanics, thermodynamics, product design, and manufacturing processes. The department features state-of-the-art labs, an R&D centre with Rs. 56 Lakhs worth of machinery, and an additive manufacturing lab with 3D printing facilities.



Students work on innovative projects, such as a biodegradable leaf plate machine and solar-powered devices, many funded by KSCST and VGST. Industry collaborations with CMTI, NIT-Siemens CoE, and other organizations provide opportunities for internships and training.

The program prepares students for careers in automotive, aerospace, energy, robotics, and more, with alumni working at companies like Bosch, Toyota, Infosys, and Amazon. The student club 'Yantrika' organizes workshops, seminars, and industry networking events to support career development.





## LABORATORY

### UNDER THE DEPT. OF MECHANICAL ENGINEERING

- ♦ Computer Aided Engineering Drawing Laboratory
- ♦ Computer Aided Machine Drawing Laboratory
- ♦ MATLAB and Advanced Python Programming Laboratory
- ♦ Conventional Manufacturing Processes Laboratory
- ♦ Advanced Manufacturing Laboratory
- ♦ Metallography and Material Testing Laboratory
- ♦ Metrology and Mechanical Measurements Laboratory
- ♦ Heat Transfer Laboratory
- ♦ Mechanical Design Laboratory
- ♦ CNC Programming & 3D Printing Laboratory
- ♦ Fluid Mechanics and Turbomachines Laboratory
- ♦ Fluid Power Engineering Laboratory



# DEPT. OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING ENGINEERING



A course on AI and ML Engineering deals with AI concepts focusing on creating systems that can perform tasks requiring human intelligence and the ML techniques that enables computers to learn from data. At present, due to the dependency and usage of AI in everyday life, the machine learning job market is extremely booming with machine learning jobs particularly cited as the second most sought-after AI jobs. AI & ML has a broader spectrum of application in sectors like healthcare, education, marketing, retail, ecommerce, and financial services.

In view of the growing demand in the AI & ML domain, SMVITM started a four-year Bachelor of Engineering program in Artificial Intelligence and Machine Learning in the academic year 2021-22 with an intake of 60 where the students are taught on building intelligent machines, software and applications. Program offers courses related to machine learning, predictive analytics, programming languages and skills, visualization techniques, signal processing, natural language processing and knowledge engineering to build a strong foundation in the domain.



## Infrastructure

The AI & ML Department has classrooms with ICT facilities and 4 computer labs, each containing 35 systems, totalling to 140 systems. The machines have been properly set up with 8GB-16GB RAM, Core i3-Core i5 processor to meet the laboratory requirements stipulated by the VTU.

## LABORATORY UNDER THE DEPT. OF AI & ML

### DATA SCIENCE LAB

- Python Programming Lab
- Data Analytics with Excel Lab
- Data Visualization Lab
- Mobile Application using Flutter Lab
- Big Data Analytics Lab

### AI AND MACHINE LEARNING LAB

- Artificial Intelligence Lab
- Machine Learning Lab
- Natural Language Processing Lab
- Deep Learning and Reinforcement Learning Lab
- Statistical Machine Learning for Data Science Lab

### COMPUTER PROGRAMMING LAB

- Digital Design and Computer Organization Lab
- Object Oriented Programming with Java Lab
- Data Structures Lab
- Database Management Systems Lab
- Computer Networks Lab
- MongoDB Lab
- Analysis and Design of Algorithms Lab
- Operating Systems Lab

### PROJECT LAB

- Mini Project
- Project Phase I
- Major Project Phase II

## Achievements

### Prayas – AI Powered NPU Device with 5G & 6G

- Developed by Mr. Shishira Bhat and Mr. Nithishwar Prabhakar (7th Sem)
- Won 1<sup>st</sup> place with a cash prize of ₹2 Lakh at the “5G & 6G Hackathon”
- Organized at IISc, Bangalore as part of Indian Mobile Congress 2024
- Award ceremony held at Pragathi Maidan, New Delhi during WTU ITSA 2024

### Ms. Anjali (3<sup>rd</sup> Sem)

Won 1<sup>st</sup> place in the Robot Competition at ‘DEVHOST 2024’, Sahyadri Engineering College, Mangalore

### Mr. Poornananda (3<sup>rd</sup> Sem)

Secured 2<sup>nd</sup> place in the 24-hour Hackathon ‘HackNight 2024’ at ‘DEVHOST 2024’, Sahyadri Engineering College, Mangalore

### Ms. Ananya Bhat (3<sup>rd</sup> Sem)

Won 2<sup>nd</sup> place in VTU Karate Championship during VTU Fest, September 2024

### Mr. Chethan V Kotian (3<sup>rd</sup> Sem)

- Won 1<sup>st</sup> place in Photography Competition at FMMC, Mangalore (October 2024)
- Also secured 1<sup>st</sup> place in ‘Golden Shot Photography’ at CMRIT, Bangalore (November 2024)



## Job Market for an AI & ML Engineer

A bachelor's degree in AI & ML opens strong career opportunities, with rising demand for professionals in the field. LinkedIn reports a 119% surge in AI job postings over two years. The U.S. Bureau of Labor Statistics forecasts 22% growth for AI-related roles from 2020 to 2030.

- Data Scientist
- Machine Learning Engineer
- Research Scientist
- Business Intelligence Developer
- Natural Language Processing Engineer
- Computer Vision Engineer
- Deep Learning Engineer
- AI Product Manager
- AI Consultant
- AI Data Analyst
- Big data engineering
- Robotics Scientist
- AI engineer

The rising demand for AI & ML engineers stems from the shift toward data-driven solutions. Careers in this field offer lucrative salaries and growth opportunities. With expert faculty, robust infrastructure, and driven students, the AI & ML Engineering Department at SMVITM ensures holistic education and professional development.

# DEPT. OF ARTIFICIAL INTELLIGENCE & DATA SCIENCE ENGINEERING

**Artificial Intelligence (AI) and Data Science (DS)** are revolutionizing industries and shaping our daily lives. The B.E. program in AI & DS at SMVITM, launched in 2021-22 with an intake of 60 students per year, equips students with key skills in machine learning, deep learning, big data analytics, and AI-based software development.

This interdisciplinary course blends science, engineering, and technology to prepare students for the future of intelligent systems. It focuses on solving real-world problems and driving innovation across sectors like healthcare, finance, manufacturing, and retail.

The curriculum offers a strong foundation in AI algorithms, data analysis, and statistical modeling, supported by hands-on learning through labs and projects. Students gain practical knowledge that aligns with current industry demands.

As AI and DS continue to drive data-driven decisions and technological advancement, graduates of this program are well-positioned for high-demand roles across industries. The department emphasizes innovation, skill development, and professional growth.



## LABORATORY UNDER THE DEPT. OF AI & DS

### DATA SCIENCE LAB

- Python Programming Lab
- Data Analytics with Excel Lab
- Data Visualization Lab
- Big Data Analytics Lab
- Mobile Application using Flutter Lab

### AI & MACHINE LEARNING LAB

- Artificial Intelligence Lab
- Machine Learning Lab
- Natural Language
- Processing Lab
- Deep Learning and Reinforcement Learning Lab
- Statistical Machine Learning for Data Science Lab

### PROJECT LAB

- Mini Project
- Project Phase I
- Major Project Phase II

### COMPUTER PROGRAMMING LAB

- Digital Design and Computer
- Organization Lab
- Object Oriented Programming with Java Lab
- Data Structures Lab
- Database Management Systems Lab
- Computer Networks Lab
- MongoDB Lab
- Analysis and Design of Algorithms Lab
- Operating Systems Lab

## Career Opportunities

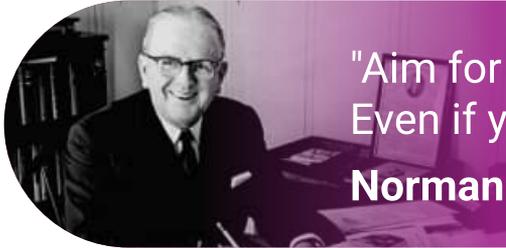
Graduates of AI & DS Program will be well-prepared for a variety of roles, including but not limited to:

- Data Scientist
- Machine Learning Engineer
- AI Research Scientist
- Business Intelligence Analyst
- Data Analyst
- AI Software Developer

With growing demand for AI and data expertise across industries like healthcare, finance, retail, and manufacturing, the career prospects are diverse and promising.



# TRAINING & PLACEMENT



"Aim for the moon.  
Even if you miss, you will land among the stars"

**Norman Vincent Peale**

## Goals

TPC functions based on Training Need Analysis collected from students, Alumni and Industry feedbacks. We have identified few pillars of strengthen the above observation are:

- Aptitude skill sets
- Application skill sets
- Technical skill sets
- Personality Development
- Value systems

## Objectives

- To build the confidence and self-esteem of the students
- To equip them with the industry specific skill sets to make them employable
- To orient and encourage students to become Entrepreneurs
- To help students get satisfying jobs of their choice

## Career options post Engineering

- Value Added – Soft skill, Technical and Aptitude -120 hours in 4 phases.
- Invited Talks and Company Specific Training.
- Guidance to competitive exams
- Career Counselling
- Konkan Railways SEPS training program

## Training Summary

### 2022-23

- UniCourt Workshop (3 Phases) - 82 CSE students (Microservices, Docker, Python)
- Personality Development (Phase 1) - 361 students (Aptitude, Logical Reasoning, Communication)
- UniCourt Workshop (2023-24 Batch) - 73 students (Microservices, Cloud Tech)

### 2023-24

- FEEL Leadership Training - 5th Sem ECE students
- Seventh Sense Personality Development (Phase 3 & 4) - 180 students (Aptitude, Technical)
- Think Fast, Talk Smart - 1st-year students (Workplace Communication)
- 10 Seconds Training - 3rd Sem (Aptitude, Technical, Industry Readiness)

### 2024-25

- UniCourt Workshop (3 Phases) - 86 students (Cloud-Native Tech, AWS, Azure, GCP)
- 10 Seconds Pre-Placement (Phase I & II) - 2<sup>nd</sup>-year & Pre-final students (Technical, Soft Skills)
- Aptitude Training (Revision) - Final Year students

# Our Major recruiters





## Department of Mathematics

Mathematics, the mother of sciences, is one of the strongest pillars that support the super structure of any engineering discipline. Mathematics, the study of quantity, structure, space and change, is used as an essential tool in natural sciences, engineering, medicine and the social sciences. Department of mathematics was established in the year 2010 in order to provide the students with a strong mathematical foundation through course which cater to the needs of mathematical applications for the students pertaining to the Engineering skills as well as research and higher education. With its well qualified and committed faculty and innovative instructional methods, the Department of Mathematics lays a strong foundation in Engineering Mathematics in the students. The department has faculty with research interests in different areas of Mathematics. The VTU approved doctoral research centre established under the department is functional with 3 candidates registered for PhD.

## Department of Physics

The Physics Department at SMVITM was established in 2010. The vision of the department is to cater to the needs of all branches of engineering and impart sound fundamentals and theoretical concepts in Physics, helping students nurture scientific temperament and creativity in the field of engineering. The department has well-qualified, experienced, and highly motivated teaching faculty members and technical staff. Currently, the department houses an Engineering Physics Lab, which is well-furnished with state-of-the-art equipment. Since 2013-14, the department has been recognized by VTU as a Research Centre. A dedicated lab for research purposes has been set up to enable faculty members to pursue experimental and theoretical research in the fields of crystal growth, nonlinear optics, thin films, and nanotechnology. In the research center, four PhD students have been awarded doctoral degrees. The department has also successfully executed research projects sponsored by various external funding agencies, such as BRNS and VGST.

## Department of Chemistry

The Chemistry Department offers Engineering Chemistry for BE undergraduate students, providing a through fundamental knowledge of various areas of chemistry with relevance to industrial applications. The department is equipped with excellent experimental facilities, enabling students to carry out experiments smoothly and efficiently. Highly experienced and well-qualified faculty members in the department are dedicated to encouraging and motivating students, fostering their overall development. Since 2014, the department has been recognized as a research centre by VTU. Apart from teaching, all the faculty members are actively involved in research activities, with one of them recognized as research supervisors by VTU. The thrust areas of research taken by the faculty in the department include natural products, corrosion studies, synthetic chemistry, nano chemistry and environmental chemistry. The department received funding from the VTU Research Grant Scheme in 2021.

## Department of English

English can be regarded as a foundation when it comes to exploring the value of the humanities in the lives and imagination of people, especially students. The English Department of SMVITM offers, The technical English course for its first year students. The objective is to provide students with the necessary communication skills and help them with inter-personal interaction in their professional life. they need to be able to think critically, solve problems, communicate clearly, be creative and work in a team in order to get placed in a reputed company. To help students become all-rounders and make use of technical communication to pave way for a better future is one of the aims of learning English language as well as the aim of the English department of this institution.

# PHYSICAL EDUCATION

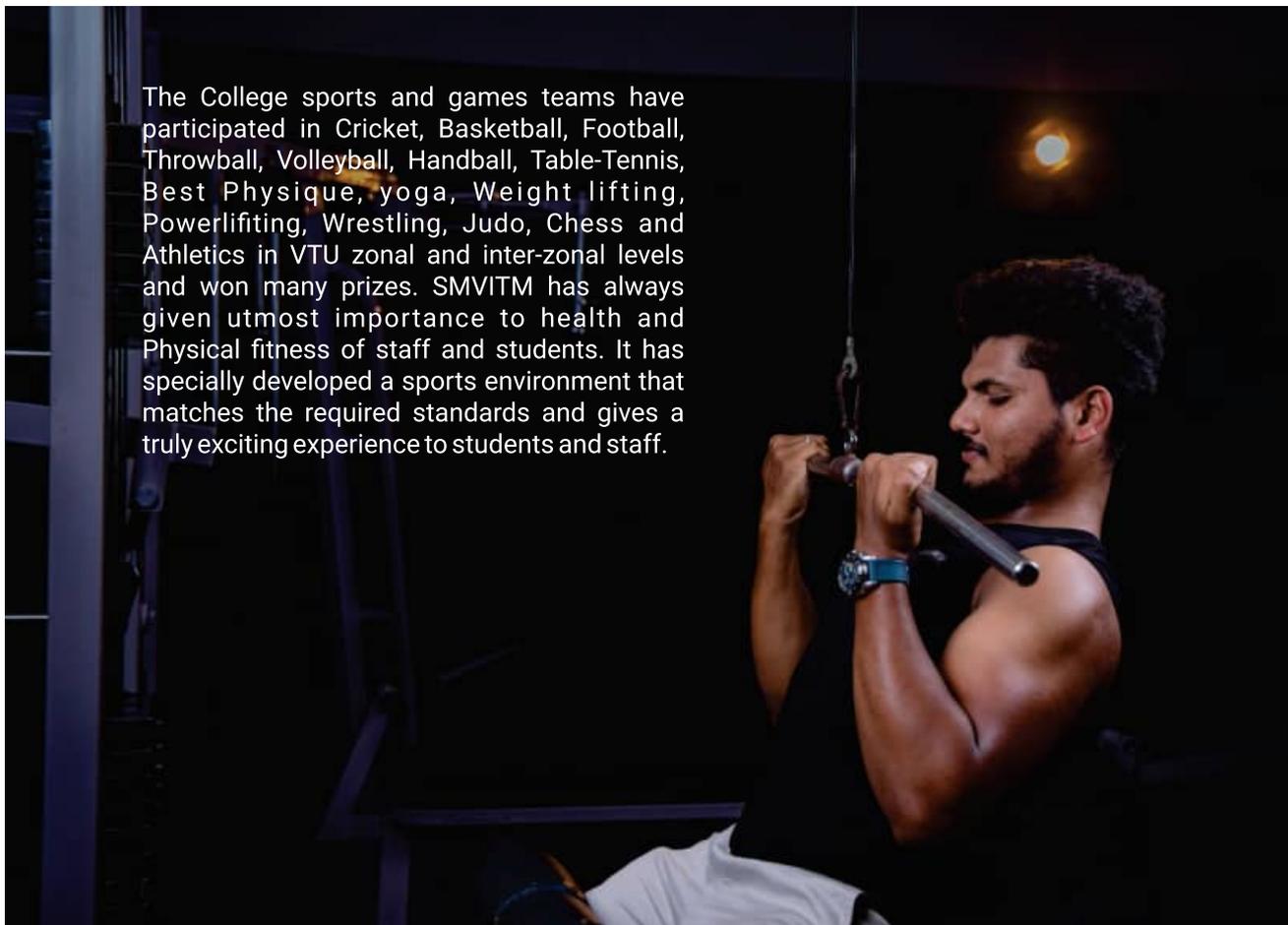


Physical Education Department is well established with different sports and games amenities such as:

- Facilities/ground for Athletics and games
- Football and cricket fields
- Volleyball, Throw-ball, Basketball, Kabaddi, Netball, Badminton, Handball Courts and shuttle badminton courts
- A well-equipped multi gymnasium facility for boys & girls
- Indoor facilities like Table-Tennis, Carrom, Chess etc.



The College sports and games teams have participated in Cricket, Basketball, Football, Throwball, Volleyball, Handball, Table-Tennis, Best Physique, yoga, Weight lifting, Powerlifting, Wrestling, Judo, Chess and Athletics in VTU zonal and inter-zonal levels and won many prizes. SMVITM has always given utmost importance to health and Physical fitness of staff and students. It has specially developed a sports environment that matches the required standards and gives a truly exciting experience to students and staff.



# PROFESSIONAL ASSOCIATIONS

## The Indian Society for Technical Education (ISTE)

The Indian Society for Technical Education (ISTE) is the leading National professional non-profit making society for the Technical Education System in our country with the motto of Career Development of Teachers and Personality Development of Students and overall development of our Technical Education System. The prime objective of the ISTE is to provide quality training programs to teachers and administrators of technical institutions to update their knowledge and skills, to assist and contribute towards the development of budding engineers needed by the industry and several other organisations. SMVITM has been certified by ISTE, New Delhi as the Institutional Member (IM: 2248) in the year 2013. ISTE Student Chapter (KA-114) and ISTE Faculty Chapter (KA-118) has been formed to motivate faculty and student members in the institute to enhance their technical skills. All the teaching faculty in the institute are Life Members of ISTE and all the students are also enrolled as ISTE Student Member during their period of engineering in the institute.

ISTE Chapters at SMVITM have organized several technical programs like National conference, seminars, workshops, faculty Development Programs, technical competitions etc.

ISTE chapter of SMVITM has achieved a milestone by receiving the prestigious Best Faculty Chapter of ISTE Karnataka Section on the basis of activities carried out during the year 2018 and 2023. It is a matter of pride to mention that, the students of SMVITM have been awarded with the best ISTE student award every year from 2015 to 2024. Being a student member, a student may gain various leadership skills by actively taking part in various activities conducted throughout the year. These skills would certainly be helpful for their professional as well as personal growth. SMVITM has achieved milestone by receiving the prestigious Best faculty chapter of ISTE Karnataka section award for the years 2018 and 2023.

## IEEE Student Branch (STB10147)

The Institute of Electrical and Electronics Engineers (IEEE) is a professional association for electronic engineering and electrical engineering (and associated disciplines) with the motto "Advancing Technology for Humanity". It was formed in 1963 from the amalgamation of the American Institute of Electrical Engineers (established in 1884) and the Institute of Radio Engineers (established in 1912). IEEE and its members inspire a global community to innovate for a better tomorrow through its more than 400,000 members in more than 160 countries, and its highly cited publications, conferences, technology standards, and professional and educational activities. IEEE is the trusted voice for engineering, computing, and technology information around the globe.

IEEE Geographically consists of 10 Regions under which there are about 342 Sections, 2,562 Chapters that unite local members with similar technical interests and 3,485 student branches at colleges and universities in over 100 countries. An IEEE student branch provides opportunities to meet and learn from fellow IEEE student and graduate student members and engage with professional IEEE members locally at institute level. An active IEEE student branch organizes technical and humanitarian activities like workshops, invited talks etc, and offers professional networking opportunities that build critical skills outside of the classroom. The IEEE student of SMVITM was approved in 2018 and has hosted many activities. While IIOT, 2020 IEEE DISCOVER, Hackathon are major technical activities, ALT mentoring is one of the major societal activities of the branch.

# FACILITIES



## Hostel

Hostel life at SMVITM offers a secure and comfortable "home away from home" experience with separate hostels for boys and girls. Rooms are available on double and triple sharing basis, with essential amenities like hot/cold water, purified drinking water, medical services, hygienic vegetarian mess, browsing center, laundry, and dryers.

CCTV surveillance and female security ensure safety, especially in the girls' hostel. Recreational facilities include common rooms with TV and events like Hostel Day, Hostel Premier League, Lagori, and Dandiya Night, promoting cultural and extracurricular engagement. The hostels support students' academic focus and personal well-being.

## Central Library

The Central Library at SMVITM, located in a dedicated three-storied block with 1300 sq. m. area, features sections for circulation, reference, group study, and digital access. It houses over 19,214 volumes across 4,313 titles, including reference books, e-books, dictionaries, encyclopedias, and more.

The library offers book bank schemes, including one for SC/ST students, and subscribes to technical/non-technical magazines and newspapers in English and Kannada. It has a well-equipped digital section with LAN, internet, Wi-Fi, multimedia, printing, and reprography facilities. As a VTU consortium member, it provides access to journals, e-books, presentations, and videos remotely.

Library hours are 8:00 AM to 6:00 PM on weekdays and 9:30 AM to 1:00 PM on Sundays and holidays, with extended hours during exams.



## Transportation

As an additional facility, the institute offers transport facilities from prominent locations of Udupi district at reasonable cost. These buses ensure the safety of students and also reach the college on time



# CONSULTANCY SERVICES

**Department of Civil Engineering** is having well equipped laboratories to take up consultancy works. Department is been taking up consultancy works from last 10 years. The clients are from Government and Non-government organizations. We do material testing and third party inspection. The details of the services provided by our department are as follows:

## Surveying

- Surveying works include mapping and preparation of layout plans, counter maps and earth wok estimations
- Analysis designing and drawing of all Civil Engineering sub structures and super structures
- Estimation costing and valuation of proposed and existing structures
- Third party inspection for flood damage, drought and other infrastructures woks sanctioned under various heads, executed by different Government agencies such as PWD, Panchayathraj, Irrigation Department, and Municipality Authority

## Soil Investigation

- Soil properties testing like Index properties, grain size distribution, standard and modified compaction characteristics
- Shear strength parameters, permeability values, consolidation characteristics
- California Bearing Ratio (CBR) value and safe bearing capacity (SBC)
- Soil investigation report with recommendations

## Building Material Testing

- Compressive strength, water absorption and efflorescence of bricks
- Compressive and flexural strength of timber and ceramic/roofing tiles
- Tensile strength, percentage elongation, weight and other properties of mild and TOR steel
- Fineness modulus, crushing and impact values, flakiness and elongation indices, abrasion and water absorption of coarse aggregates
- Fineness modulus, silt content and bulking of fine aggregates

## Highway Material Testing

- Flash and fire point of bitumen, ductility of bitumen, viscosity of bitumen, consistency testing, specific gravity of bitumen, crushing strength.
- Measurement of resistance to plastic flow.
- California Bearing Ratio test to determine the road subgrade strength.

## Cement/Concrete Testing

- Mix design of concrete for varieties of works, concrete air permeability, specific gravity, normal consistency and setting time of cement
- Compressive strength of concrete cubes and soli/ hollow blocks bricks
- Workability of concrete using flow table as well as slump test
- Soundness of cement using autoclave,, flexural strength of hardened concrete
- Nondestructive testing, permeability of concrete as per DIN standards

## Drinking water Testing

Drinking water analysis as per BIS 10,500: 2012 standards. The tests are conductivity, TDS, COD, BOD, pH, Turbidity, acidity, DO, Acidity, Chlorides, Hardness, Iron, Sulphates, Calcium, residual Chlorine, Chlorine Demand, E-Coli



# NCC @ SMVITM



**National Cadet Corps (NCC)**, is a voluntary program that any student can join. The program teaches students to be disciplined in life. It's a Tri-Services Organization and engaged in grooming the youth in India to become patriotic citizens. SMVITM has the company of 50 cadets which belongs to 4 Karnataka Engineers Company, NCC, Army wing.

NCC training offers many benefits to the trainees. After attending a minimum of 75% of NCC training, the students get a certification from NCC according to their level. These certificates help the students in their career.

## Objectives of NCC

- To develop character, comradeship, discipline, a secular outlook, the spirit of adventure and ideals of selfless service amongst young citizens.
- To create a pool of organized, trained and motivated youth with leadership qualities in all walks of life, who will serve the Nation regardless of which career they choose.
- To provide an environment conducive to motivating young Indians to join the armed forces.

## Benefits of joining NCC

In addition to personality development, after the completion of training duration, cadets can earn one of the three certificates namely 'A' Certificate, 'B' Certificate, 'C' Certificate. The 'C' certificate is the most important certificate of NCC training. Person with a C certificate has special consideration during selection for the armed forces. Also Many organizations from the public sector give advantages to the cadets with 'C' certification.

# NSS @ SMVITM



# INSTITUTIONAL CELLS



## Co-Curricular Cell

The Co-curricular Committee at SMVITM enhances students' intellectual and technical skills beyond academics through project-based learning and hands-on activities. It organizes project exhibitions, skill-enhancing workshops, and the annual inter-college tech fest, Tantrikothsava. Students are encouraged to participate in external technical events, where they have excelled in hackathons, ideathons, paper presentations, quizzes, and robotics competitions like Robo Race, Line Follower, and Robo Soccer.

## Extra-Curricular Cell

The Extracurricular Committee "Samskrithi" at SMVITM nurtures student talents through diverse activities and encourages participation in in-house and intercollegiate events. Its flagship fest, Varnothsava, blends technical and cultural competitions, while Manthana hosts over 30 intra-collegiate events across literary, fine arts, and cultural categories. Talent Shows, Karnataka Rajyotsava, and other activities further boost student confidence and foster holistic development.



## Alumni Cell

The SMVITM Alumni Cell, established in 2019, connects over 3,500 alumni from 11 graduating batches, fostering strong ties between former and current students. Operated by committed office bearers, the cell promotes mentorship, career guidance, and personal development through alumni involvement.

Alumni actively contribute as mentors, guest speakers, judges, and members of key institutional committees like PAC and IQAC, shaping the institution's growth. The cell organizes career sessions, workshops, talks, and recruitment drives, enriching student learning while allowing alumni to give back.

Upholding the values of SMVITM, the Alumni Cell promotes lifelong engagement and collaboration, playing a vital role in the academic and cultural development of the institution.

## Counselling Cell – Aasare

Counselling Cell – Aasare at SMVITM focuses on supporting students, faculty, staff, and parents by providing emotional guidance and promoting mental well-being.

Objectives include creating a safe space for personal and academic concerns, teaching coping and stress management techniques, and fostering academic excellence and personal growth through individual and group counseling.

### Key outcomes aimed for:

- Improved mental health and academic performance
- Higher student satisfaction and retention
- Better communication and interpersonal skills
- Stronger relationships among students, faculty, and staff

### Regular activities include:

**For students:** Awareness during induction, personalized sessions on stress, time management, personal issues, and referrals when needed.

**For faculty and staff:** Sessions on work-life balance, stress management, and basic counselling skills.

**For parents:** Talks during PTMs on parenting, managing violence, and substance abuse at home.

The Cell ensures a confidential, non-judgmental environment for holistic growth. Seek help and promote mental wellbeing.



## Entrepreneurship Development Cell

Entrepreneurship Development Cell (ED Cell) at SMVITM fosters entrepreneurial spirit and innovation among students and faculty, empowering them to transform ideas into successful ventures and contribute to economic growth.

### Impact and Vision:

The ED Cell has produced successful alumni entrepreneurs and remains a cornerstone of SMVITM's commitment to innovation, aiming to inspire the next generation of leaders.

### Key Activities:

- **Workshops & Training:** Sessions on business plans, marketing, finance, and legal aspects.
- **Expert Talks:** Insights from entrepreneurs, industry leaders, and alumni.
- **Competitions:** Business plan contests, hackathons, and innovation challenges.
- **Industry Visits:** Exposure to real-world business practices.
- **Celebrations:** Events marking Innovation Day, National Entrepreneurship Day, Start-up Day, World Creativity and Innovation Day, and Intellectual Property Day.

## AWARDS AND RECOGNITION



# SMVITM

## SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(A Unit of Shri Sode Vadiraja Mutt Education Trust®, Udupi)

Accredited by NBA and NAAC with 'A' Grade

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