VIT | Vidyalankar Institute of Technology
Accredited A+ by NAAC

Review Report

on the

Performance of the College for the Academic Year 2022-23

Vidyalankar Institute of Technology

Vidyalankar College Marg, Wadala(E), Mumbai

(Autonomous College Affiliated to the University of Mumbai)

NAAC Accredited with A+ Grade (CGPA:3.41)

Principal

INTRODUCTION AND BACKGROUND OF THE INSTITUTION

'***Vidyalankar'*** is a Sanskrit word which reveres *'Vidya'* as a precious *'Alankar'*; the essence being that knowledge is the true ornament of a progressive mind. Established in 1960, the Vidyalankar Group is committed to spreading the radiance of knowledge far and wide. The seeds of Vidyalankar were sown by Late Prof. Chandrashekhar S. Deshpande, a technocrat and visionary blessed with extraordinary academic acumen, engineering skills, and a great passion for education.

Established in the year 1999, **Vidyalankar Institute of Technology (VIT)** is an Autonomous private, self-financed Engineering and Management Institute approved by All India Council for Technical Education (AICTE), New Delhi, Directorate of Technical Education (DTE), Government of Maharashtra and is affiliated to the University of Mumbai. The Institute received autonomous status for a period of ten (10) years from the A.Y. 2022-2023 to A.Y. 2031-2032 from UGC (vide letter No. F 22-1/2022(AC) dated March 15, 2022) and University of Mumbai(vide letter No. Aff./ICD/22-23/507 dated June 20, 2022).

The Institute **currently runs five Undergraduate Programs in Engineering**, **two Postgraduate Programs in Engineering, a Postgraduate program in Management Studies, and a Doctoral Programs in Technology-Computer Engineering.**

Centrally located in the heart of Mumbai, the Institute, with its state-of-the-art infrastructure and qualified and experienced faculty, attracts meritorious students. VIT aims to create industry-ready professionals and entrepreneurs by infusing the right blend of technological expertise and professional acumen and sensitizes them towards contributing to society.

VIT aims to facilitate a holistic environment to enable learners to reach their optimum potential from the perspective of applying the learnings with an innovative mindset. To aid this education process, the implementation of the concept of aiming for 'student delight' has rewarded the Institute.

A well-planned curriculum, integrated with ICT enabled teaching–learning processes, encourages innovative thinking, problem-solving capabilities, and research orientation among the learners. Adequate emphasis is given for co-curricular, and extra-curricular activities, by facilitating a plethora of opportunities to enrich one's personality, thereby nurturing a progressive learner-centric environment.

The Institute is proactive in establishing various platforms for research, innovation, and extension activities. Some of the significant steps taken till date towards promotion of research culture is the establishment of Research and Development Committee, Incubation Centre, Entrepreneurship Cell, Innovation Lounge, and Ph.D. Program in Computer Engineering.

Institute Summary:

1.	Name & Address of College	Vidyalankar Institute of Technology, Vidyalankar College Marg, Wadala (East), Mumbai-400 037
2	Name of the Principal	Dr. Sunil A. Patekar
3.	Contact Details	**Phone**: 022- 24161126 Extn: 1001 **Email**: principal@vit.edu.in **Website**: www.vit.edu.in
4.	Affiliating University	University of Mumbai, Mahatma Gandhi Road, Vidya Nagar, Kala Ghoda, Fort, Mumbai - 400 032, Maharashtra
5.	Included in Section 2 (f)/12(B)	Yes
6.	Year of Establishment of College	1999
7.	NAAC Accreditation	Yes Period of Validity up to December 31, 2027 Grade: **A+** CGPA: **3.41**
8.	NBA Accreditation	Yes Courses Accredited: The following Undergraduate (UG) Programs are accredited: i. Information Technology ii. Computer Engineering iii. Electronics Engineering* iv. Electronics and Telecommunication Engineering v. Biomedical Engineering (Period of Validity: Up to June 30, 2025) *From AY 2022-23 the program name 'Electronics Engineering is changed to Electronics and Computer Science.
9.	Type of Institution/College (Govt./Private/Aided etc.)	Private, Unaided
10.	Whether College is Self-Financed	Yes

Courses & Intake for Academic Year 2022-23:

Sr. No.	Course	Intake-AY 2022-23
Undergraduate Courses (B.E.)		
1.	Information Technology (INFT)	120
2.	Computer Engineering (CMPN)	120
3.	Electronics and Computer Engineering (EXCS)*	120
4.	Electronics & Telecommunication Engineering (EXTC)	120
5.	Biomedical Engineering (BIOM)	60
Post Graduate Courses (M.E.)		
6.	Computer Engineering	12
7.	Electronics & Telecommunication Engineering	12
Post Graduate Course (M.M.S.)		
8.	Master of Management Studies	120
Doctoral Course (Ph.D.)		
9.	Ph.D. in Technology (Computer Engineering)	10

**From AY 2022-23 the program name 'Electronics Engineering' has been changed from to 'Electronics and Computer Science.'*

1.CURRICULUM DESIGN & DEVELOPMENT

The curriculum at our institute is meticulously designed to cater to the technical developmental needs at local and global levels. This relevance is reflected in the Programme Outcomes (POs), Programme Specific Outcomes (PSOs), and Course Outcomes (COs) of all our offered programmes. The Institute is committed to impart quality education to our students and build competent professionals. So, while developing the curricula, the Institute has followed NEP 4.0 guidelines. To cope up with the current trends and technical developments and to update the learners, the developed curricula is focusing on various upcoming areas such as Machine Learning, Artificial Intelligence, Big data, Data Analytics etc. To meet the local and global challenges and to enhance the technical competency of the students, the curricula has introduced some minor tracks as well like Intelligent Game Development, Data Forecasting, Smart City-Design & Development etc. The courses are introduced like Social Service Internship, Technical business writing, Project work etc. which are reflected in Program Outcomes PO7 to PO11. These courses ensure that our graduates emerge as well-rounded professionals capable of making meaningful contributions to society at large. Minor/honour tracks are introduced like Embedded systems and IOT, Communication systems, VLSI to cater the cutting-edge technologies.

Institute has integrated cross-cutting issues and value framework of NEP–2020 into curriculum so that the students are motivated to imbibe sense of social responsibility in addition to the domain knowledge. Professional Ethics and Human Values: To promote ethical decision-making, integrity, accountability, and responsible behaviour, the courses related to Communication, Professional Skills, and Ethics are included in curriculum. These courses emphasize technical communication and writing skills, value education, importance of ethical behavior and social responsibility. Additional activities on corporate etiquette and public speaking are also conducted. Gender: Gender-related issues are addressed in courses like Entrepreneurship Management. Modules on Gender bias and Human rights including, sexual and reproductive rights, rights to equality and non-discrimination, women entrepreneurship, values, and gender socialization are discussed in these courses. Institute organized activity on Gender Sensitization. Environment and Sustainability: "Environmental management" course covers the topics on ecosystem, food chain and environment related legislations whereas "Waste management – Process, concept and working" course covers key elements of the waste management system, such as its technical, environmental, social, financial, and institutional aspects. Our students are empowered to become lifelong learners, critical thinkers, and agents of positive change, in line with policy's vision and can tackle complex challenges of world.

The first batch of Autonomy students was admitted in the A.Y. 2022-23. The following reforms were introduced by the Institute in autonomy:

- The autonomy curriculum and evaluation methodology: The curriculum and evaluation methodology as approved by each Programme Board of Studies and Academic Council were successfully implemented.
- "My Timetable" feature: Student have been given opportunity to prepare their own timetable by selecting the suitable time slot of their choice and selecting the subject teacher of their choice. Normally, Institute provides the choice of 2-3 Teachers per subject.
- Pace of Learning: Institute also offers substantial academic flexibility by allowing students to take the courses they want and finish them at their own pace. Although each 4-year UG degree programme has a defined set of recommended courses for each semester based on the knowledge map, all courses offered by the institute, irrespective of the programme, will be open to students for registration. Students may enrol in the courses they want to take as long as they meet the prerequisite requirements for those courses. This enables students to enrol in courses at their own pace as faculty may offer courses in both the semesters.
- Advanced Learning: Students have been given the opportunity to complete the Higher semester courses well in advance along with lower semester courses. This will facilitate them to get more time in higher semesters to get engaged in developing projects and internships.

- Faculty from Industry and Institutes of National and International Repute: One Course in every department is engaged by faculty from organizations of national and international repute.

The Institute has a well-planned, documented, and structured six step mechanism. Academic teaching-learning processes are planned in consultation with Cluster Mentors and documented in the Academic Administration Plan (AAP). This is ensured in the Academic Preview Process at the beginning of the semester. Dissemination of AAP and effective content delivery is checked through Academic Review Process at the end of each semester. Curriculum enrichment is achieved through Beyond Syllabus Activities and Value-Added Courses for imparting transferable and life skills. These courses are designed based on recent developments and the feedback received from the stakeholders. The focus is on enhancing technical knowledge and soft skills development. The Institute has various committees in place which conduct a plethora of activities which contribute to sensitizing students to cross-cutting issues like gender, environmental sustainability, universal human values and professional ethics for development of creative and divergent competencies.

The Board of Studies of each Department finalizes curriculum which includes the following features.

- Academic flexibility and diversity
- Aspects on career orientation
- Multi-skill development
- Involvement of stake holders

The Curriculum is approved by the Academic Council and ratified by the Governing Body is then implemented.

Curriculum planning and implementation process:

A. Curriculum Design: Designing the curriculum shall focus on the following skillsets which are necessary for holistic development and industry readiness of the students.

Core Knowledge and Practice	Cognition, Mental and Thinking	Professional and Interpersonal	Business and Management
•Disciplinary fundamentals •Multidisciplinary knowledge •Practical experience •ICT skills	•Lifelong learning •Problem solving •Decision making •Creativity & Innovation •Design	•Professionalism •Ethics and Responsibility •Communications •Teamwork	•Time Management •Leadership •Resource Management

Step I: Stakeholder's feedback on curriculum review and design.

List of stakeholders:

- Faculty Members
- Students
- Employers
- Alumni

Step II: Analysis of stakeholder's feedback on curriculum and design of curriculum

- Process owners –Departments, Alumni Committee, Placement Cell and Parent Interaction Committee

Step III: Presentation of analysis to IQAC and takeaways

Step IV: Preparation of draft of curriculum based on IQAC guidelines by BoS.

- Process owners – BoS of each Department.

These courses are designed based on the recent developments and the feedback received from the stakeholders and suggestions from IQAC. Courses are designed to provide outcome-based education through fully flexible credit system. The focus is on providing technical knowledge, soft skills development**,** transferable and life skills. Courses are introduced to sensitizing students to cross-cutting issues like Gender, Environmental Sustainability, Human Values and Professional Ethics for development of creative and divergent competencies.

Step V: Approval by Academic Council and Implementation.

B. Curriculum Planning

The strengthening of curriculum and a well-structured curriculum delivery shall be achieved through the following steps:

1. **Planning:**

Stage-1: Academic Calendar and Subject Allotment

The Institute prepares its Academic Calendar in alignment with the University's calendar. Subject allocation is done based on their expertise and experience of the associated faculty.

Stage-2: Preparation of draft Academic Administration Plan (AAP)

Every subject teacher prepares the draft AAP based on the AAP of the earlier years. AAP includes course objectives & outcomes, real life application mapping, academic resources, allied MOOC/Value Added Courses (VAC), lesson plan, assignments, tutorial/practical plan including Problem Based Learning (PBL), evaluation scheme for grading.

Stage -3: Interactive Cluster Meetings for identifying gaps and strengthening of AAP

Courses of similar domain are brought under one Cluster. Currently, the Institute has 50 such Clusters. Each Cluster has respective course teachers with the associated expertise and specialisation, one internal and two external mentors (Academic & Industry). Gaps in the curriculum are identified through structured feedback on revision of syllabus from the stakeholders and inputs are received from Departmental Advisory Board (DAB) and Cluster Mentors and accordingly Beyond Syllabus Activities (BSAs) are planned to strengthen AAPs.

Stage-4: Academic Preview Process (APP)

While emphasizing on the significance of meticulous academic planning, constructive feedback and continuous improvement, APP is conducted at the beginning of each semester as an IQAC initiative. A panel comprising Departmental Academic Officer (DAO) and Head of the Department (HOD) verifies and validates the academic preparedness (including University examination paper solution, Assignments, Internal Assessment (IA) question papers and its Audit report) as per the standard Preview format and suggestions are given, if required.

2. **Dissemination of AAP**: The finalized AAP is uploaded on the Institute's internal portal (vRefer and vLive) and is also discussed during the first lecture.

C. Curriculum Delivery:

To ensure that every student plays an active role in the learning process, curriculum delivery is made more effective through the following modes:

- **Conventional Methods:** Lectures/Lab Session/Tutorials are in place.
- **Student Centric learning Methods:** Experiential (Ivs, Internships, Workshops), Participative/Collaborative (Group Projects, Role Plays, debates, GDs, Presentations) and Problem Based Learning (PBL Experiments, Case Studies, Assignments) are in practice.

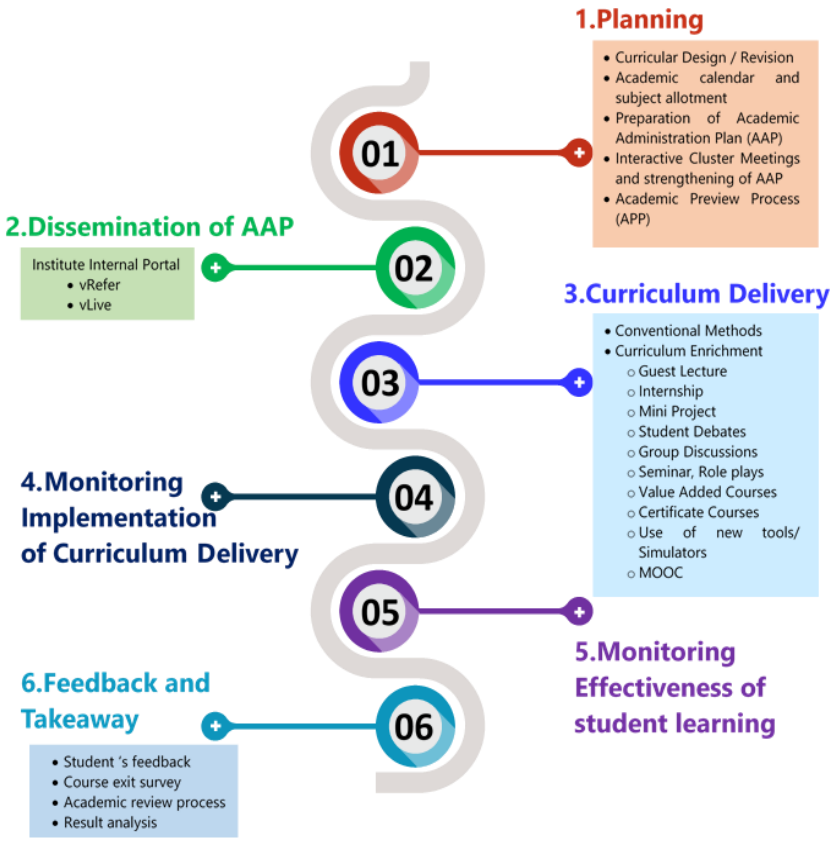
- **Beyond Syllabus Activities (BSA):** BSAs such as industrial visits, internships, workshops, mini projects, student debates, group discussions, seminars, role plays, value added courses, certificate courses, use of new tools /simulators, MOOC (NPTEL etc.) are also conducted.

D. Monitoring implementation of Curriculum delivery: Academic Coordinators closely monitor (fortnightly) the content delivery of the courses and give feedback to the HOD for further improvisation.

E. Monitoring effectiveness of student learning: Continuous evaluation is done though formative (Internal Assessment) and summative (Term Work evaluation) assessment methods. Advanced learners and slow learners are identified, and necessary actions are initiated.

F. Feedback and Takeaway

- **Students' feedback** is taken on various prescribed parameters in the week 4 and 8 and corrective measures are taken.
- **Course Exit Survey** is carried out to understand the course efficacy.
- **Academic Review Process** (ARP) is carried out in the semester end to verify AAP implementation and feedback is communicated.
- **Result Analysis** is carried out to study the students' performance to initiate the corrective measures, if any.



Academic Process

In view of the Autonomous Status conferred on Vidyalankar Institute of Technology since AY 2022-23, there is increased emphasis on flexibility in the learning experience. As the priority and thrust of VIT is learner-centricity, in sync with NEP-2020 innovative measures are undertaken to offer a unique and distinctively flexible learning environment. Multimodal flexibility is offered to VIT students in terms of:

Making their own timetable "My Timetable"

Students have the flexibility to design their own timetable by choosing the courses, day, preferred time slot, and course instructor.

Course Selection

Students can choose the courses they want and complete them at their own pace. All courses offered by the Institute are open for enrolment (subject to credit and prerequisite fulfilment) by students of any program.

Flexibility in choice of Advanced Learning Course

Students can choose when they would like to complete the course. Some may opt to complete more courses, and work on increasing depth/breadth of learning.

Faculty Choice

Students can choose faculty members depending on availability of time slot, subject expertise, and mode of learning.

Academic flexibility is pivotal to the learning experience at an autonomous institute, and it encourages students to choose interdisciplinary courses as per their needs and interest.

2. TEACHING LEARNING AND EVALUATION PROCESS

- **Student enrolment A.Y. 2022-23**

Course	No. of. Students	
	Course Year	Student Count
Information Technology (UG)	First Year	137
	Second Year	154
	Third Year	155
	Fourth Year	166
Computer Engineering (UG)	First Year	136
	Second Year	151
	Third Year	157
	Fourth Year	157
Electronics And Computer Science /Electronics Engineering (UG)	First Year	134
	Second Year	149
	Third Year	151
	Fourth Year	117
Electronics & Telecommunication Engineering (UG)	First Year	136
	Second Year	151
	Third Year	151
	Fourth Year	159
Biomedical Engineering (UG)	First Year	66
	Second Year	76
	Third Year	62
	Fourth Year	60
Information Technology (PG)	First Year	0
	Second Year	2
Computer Engineering (PG)	First Year	8
	Second Year	2
Electronics & Telecommunication Engineering (PG)	First Year	1
	Second Year	3
Master of Management Studies (PG)	First Year	132
	Second Year	124
Computer Engineering (PhD)	**Total (C)**	9

The Department of First Year Engineering had conducted an Orientation Programme titled "Bon Voyage on 15 November 2022 in VIT Auditorium" for the batch of new entrants of the A.Y. 2022-23. The main objective of this programme was to make the new students feel comfortable in the new environment, inculcate in them the ethos and culture of the institution, to help them build bonds with other students and faculty members, and expose them to a sense of larger purpose and self-exploration. It was also an opportunity for the college to meet the newest members of the community.

This program comprised of various sessions to acclimatize new entrants to their new roles and environment. It enabled our First-Year students to learn about various institutional policies, processes, practices, culture, and values.

Some snapshots of this program –

- **Total Faculty A.Y. 2022-23: 121**

- **Catering to Student Diversity**

To assess the learning level of a student, the Institute incorporates several methods for identifying the slow and advanced learners. A combination of different assessment tools and strategies are finalized in the Institute. Various activities and assignments are planned for advanced and slow learners. Classroom Assessments: Teachers regularly assess the students' learning levels through various classroom activities, quizzes, and tests. They help teachers gauge students' understanding, identify areas of improvement, and adjust their teaching strategies. Some of the assessment tools used in the Institute are Class Tests, Quizzes, Open Book Test and Take-Home Test. Formative Assessments: Formative assessments are conducted during the learning process to monitor progress and provide immediate feedback from the students. This assessment is used to test the students' knowledge using no standard criteria. Some examples are Students Seminars, Poster Presentations, Group Discussions etc. Activities and Assignments: The activities and special assignments are given to students as per their learning levels. The special assignments are given like IEEE research paper review, Research article **or blog writing, etc. to advanced learners. The assignments are given like** Take home test, Quizzes, class tests etc. to slow learners to practice the concepts and their performance is improved in the examinations.

- **Teaching- Learning Process**

The Institute incorporates various student-centric methods for ensuring enhanced learning experience and thereby attains effective curriculum delivery. At the beginning of the semester, during preview process, cluster mentors rigorously review the Academic Administration Plan (AAP) and ensures that variety of student-centric methods are included. At the end of semester, during review process, panel of experts verifies the content delivery specified in AAP.

Experiential learning

Lab Experiments: Online open-source simulators/software, Virtual labs Hands-on Workshops like Basics of MATLAB, Machine Learning etc. Internships-Internal and External Internships Live Projects Business Simulations Individual learning: Value-added Assignments/Quizzes/Crosswords

Online courses: NPTEL/MIT-OCW/Coursera, etc. (Institute has tie-up with edX, Coursera) Interactive Language Lab Poster presentation

Participative/collaborative learning: Student Seminars v-Talks Webinar Series- Talk series by Eminent personalities Mini Projects: "Android Penetration Check"," Wild Animal Tracker" etc. Group discussions Flipped Classroom Various Competitions: Hackathon2022, Reverse Coding, Hackatronics, IEEE Xtreme -2022, Tantravihar 2022 etc. Committee activities: Crossing Perceptions, IRIS-2023, Voyager-Shark Tank-2023, Robotic Process Automation, ALGORHYTHM 2023, Enthusia 2023', E summit- Entrepreneurship Opportunities in Healthcare, TechBids, etc. Student Development Program- "Continuum: Strengthening the learning curve" Gaming Activities - Kahoot game, Quizlet games, Quizz etc.

Problem based learning: Problem Based Learning Experiments Case Studies Scholarly Term Paper Research Paper Review

- **Teachers use ICT-enabled tools including online resources for effective teaching and learning**

Teachers at VIT have embraced Information and Communication Technology (ICT) to enhance their teaching methods and provide students with valuable learning experiences. ICT-enabled tools and online resources play a pivotal role in this transformation. In our Institute Teachers have access to a vast array of online resources that supplement traditional teaching materials like educational websites, interactive simulations, video lectures, and e-books, among others. Under the umbrella of V-provisions, various ICT-enabled processes such as V-Live, V-refer, V-MIS, V-print, Vattendance, V-tutorials E-learning and OCW are included. In our Institute the commonly used ICT tools are Lecture Capture, LMS, MOODLE, ERP, MS Office Tools, Teams Platform, Video conferencing and Skype, Situating Tools (Simulation, Virtual Reality, Hypermedia, and Presentations), and Individual laptops per faculty. Effective student engagement is ensured through the use of various TLP tools like Flipgrid, Padlet, Polly, Kahoot, Mind maps, crosswords, concept videos, etc. Virtual experiments are created by faculty and practical sessions are conducted through virtual labs, simulations, and various opensource tools and Licensed software. Teachers can use these tools to supplement their teaching by explaining concepts more effectively but also empower students to take charge of their learning journey.

- **Preparation and adherence to Academic Calendar and Teaching Plans by the institution**

The Institute is aware of the importance of a carefully thoughtout academic calendar and teaching plans in offering its students a structured and organised learning environment. The Chief Academic Officer in consultation with The Principal, Vice Principal, Director of the Internal Quality Assurance Cell, and the Board of Studies members prepares the Academic Calendar for the effective functioning of the Institution. The Academic Calendar, which lists significant dates, occasions, holidays, and academic activities, acts as a road map for the full academic year. The Academic Calendar gives information about the calendar of classes, exams, assignments, projects, and cocurricular events to students, professors, and other stakeholders in a clear and transparent manner. For every course, professors prepare Academic Administration plans. These plans specify the learning objectives, subjects to be covered, teaching techniques, evaluation procedures, and anticipated results for each class session. Faculty members frequently evaluate and revise their lesson plans to include new information, especially of the use of ICT-enabled tools and facilities developing trends, and input from students and Board of Studies members. For the Institute to retain its academic standards and integrity, adherence to the academic calendar and academic plan encourages uniformity in content delivery.

- **IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in the Examination Management System (EMS) of the Institution**

The examination structure comprises Mid-Semester Exam (MSE), End Semester Exam (ESE), and In-Semester Assessment (ISA). 1. IT Integration in examination: The implementation of softcopy mark sheets for faculty has enhanced grading efficiency, enabling teachers to quickly complete marks entry with verification by Heads of Departments. Further integration involves Vidyalankar Management Information System (VMIS) for precise mark data entry along with validation and verification of marks. 2. Reforms in the examination procedures and processes: a. MSE and ESE examination We introduce the "Festival of Examination" to replace traditional oral and practical exams, aiming to instil confidence and welcome learning opportunities. MSE papers are audited by cluster mentors, ensuring alignment with course outcomes and Bloom's taxonomy.

The ESE comprises three sets of papers—two internal and one external—of which one is chosen for examination. Post-results, an Open-Day allows students to review corrected answer books, and interested students have the option of a repeat examination for both MSE and ESE. b. In-Semester Assessment The institution employs online examination systems for various ISA activities, such as POP quizzes and Mobile app-based quizzes. LMS platforms like V-Refer, Lecture Capture-enabled classrooms, and MS-Teams are used to manage course materials, assignments, and facilitate faculty-student communication.

- **Attainment of Programme Outcomes and Course Outcomes as evaluated by the institution**

To evaluate the attainment of the learning outcomes, the institution employs various assessment methods. The Learning outcomes are quantified in the form of Course Attainments and Program Attainments

Course Outcome attainment: It is based on the following components. 1. Internal Evaluation (20%Weightage) comprising IA Tests, Lab work, Assignments etc. 2. External Evaluation (80%Weightage) comprising of End Semester Theory and Oral/Practical Examination Levels are based on the percentage of number of students who score above the calculated threshold value.

PO Attainment PO attainment is carried out using Direct and Indirect tools. COPO mapping is used as a Direct tool for PO attainment. Direct Tools (80% weightage): Attainment of COs for all the courses under the Programme is carried out and based on CO-PO mapping table of the entire programme, attainment of each PO is carried out. Indirect tools · Program exit survey · Employer Survey · Alumni Feedback PSO Attainment: It is same as calculation of PO attainment

RESULTS – June-2023 Examinations

Branch	Pass % Sem II	Pass % Sem IV	Pass % Sem- VI	Pass % Semester VIII
INFT	97.83	99.35	96.77	99.39
CMPN	96.30	94.67	100.00	100.00
EXCS/ ETRX	98.51	87.07	95.97	100.00
EXTC	96.32	86.67	93.33	100.00
BIOM	92.31	98.67	90.32	100.00

Branch – Semester	Pass %
ME CMPN – II	100
ME EXTC – II	100
MMS - II	100
MMS-IV	100

3. RESEARCH, INNOVATIONS AND EXTENSION

- **The institution's research facilities are frequently updated and there is a well-defined policy for promotion of research which is uploaded on the institutional website and implemented**

The research facilities are regularly updated as per the requirement. There is a well-defined policy for promotion of research and the same is available on the college website. The college offers doctoral degree in Computer Engineering disciplines under University of Mumbai. The revised Research Policy of the College comprising the Research Promotion Policy, Plagiarism Check, Research Ethics, Research Consultancy Policy, Seed Money Research Grant, and College Research Regulations govern all processes starting from admission to submission of thesis. The Institute takes care to provide physical infrastructure such that the faculty and students involved with research are motivated. VIT Research Grants (Seed Money) provides monetary assistance for research. Research facilities, well equipped research laboratories with advanced equipment, digitized library and softwares to assist research include plagiarism checking softwares. To promote research, special lectures on writing a good manuscript, ethics in research, IPR, writing of research proposals and consultancy are regularly organised. College also facilitates the participation of the faculty members in seminars, conferences, workshops, etc. at national and international levels.

- **Innovation Ecosystem**

The institute has created an ecosystem for Research and Innovation in this regard we developed an Incubation center, Entrepreneurship to initiate transfer of knowledge. The institute has Research and Development Cell to motivate and create research culture among faculty members and students. Promoting Innovation: Incubation Centre and Entrepreneurship Cell (E-cell) initiates various activities to identify and nurture the latent entrepreneurial spirit of students and provide them opportunities for excellence. Activities like Innovate to Elevate, Business Model Canvas. Encouragement to establish different clubs for students by the departments for industry careers through various training programmes. The R&D ecosystem constitutes Human manpower infrastructure comprising 11 recognized research guides, 28 doctorate faculty and 16 faculty pursuing Ph.D. programs. Physical infrastructure comprising well equipped Library and laboratories with modern simulation tools and equipment for carrying research activities. To facilitate research studies, we have Mumbai University approved Ph.D. Programme for Computer Engineering. Research and Development Committee facilitate creation and transfer of knowledge by conducting technical workshops, seminars, industrial visits, workshop on research proposal writing, research mentoring workshop, Training programs, National and International Conferences, Book Reviews/Paper Reviews, Technical presentations by faculty members and also provides mechanism for submission of minor and major research proposals for funding by Institute/University. College has signed MOUs with industries to promote real-time project development. AET Journal: Institute publishes technical journal 'Applied Engineering and Technologies', with ISSN: 2278-1722 annually. Quality of reviewed research papers is ensured through reviews.

Name of the Author(s)	Department of the Author(s)	Title of the Paper	Name of the Journal	Month and Year of publication	ISSN	Link to the notification in UGC enlistment of the Journal
Kunal Jain, Mohammed Ahmed Ansari, Sankalp Kumar Gupta, Deepali	Information Technology	Kisan Seeva	International Journal for Research in Applied Science & Engineering Technology	Dec-22	2321-9653	Best UGC Journal Paper Publish | IJRASET
Shardul Birje, Rohana Survase, Sayali Khamgaonkar, Deepali Shrikhande	Information Technology	BookBarn: Web Based Book Recommendation and E-Commerce System	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	Jun-22	2321-9653	Best UGC Journal Paper Publish | IJRASET

Aryan Shirwadkar, Samuel Jacob	Information Technology	Spam Mail Classifier	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	Dec-22	2321-9653	Best UGC Journal Paper Publish | IJRASET
Sachin Deshpande	Computer Engineering	Integrating Human Computer Interaction To Software Development Architecture	International Journal of Creative Research Thoughts	Apr-22	2320-2882	https://ijcrt.org/ugc%20approval.jpg
Sachin Bojewar	Computer Engineering	Recommendation system using location sensing (LBSN) and sentiment analysis	Gravida Review Journal	Jun-22	0363-8057	https://www.scopus.com/sourceid/16200154732
Ravindra Sangle	Computer Engineering	Multiple Object Tracking With Weighted Adaptive Structural Network In Real-Time Surveillance System	Journal Of Harbin Institute of Technology	Jun-22	ISSN: 0367-6234	https://www.scopus.com/sourceid/12658
Ravindra Sangle	Computer Engineering	Multi Object Detection using Gaussian Mixture Model with Convoluted Moving Window Architecture Integrated by Kalman Filter for Background Subtraction Method	International Journal of Mechanical Engineering	Jun-22	ISSN: 0974-5823	https://www.scopus.com/sourceid/21101016918
Umesh Kulkarni	Computer Engineering	An overview of personality recognition through Machine Learning for E-recruitment	Journal of Emerging Technologies and Innovative Research	Aug-22	2349-5162	https://jetir.org/jetir%20ugc%20approval.pdf
Dr. Sangeeta Joshi	Electronics &Computer Science	Design and Development of IntelliHome	International Research Journal of Engineering and Technology (IRJET) Vol. 9, Issue 4	Apr-22	ISSN: 2395-0056	https://www.irjet.net/
Dr. Sangeeta Joshi	Electronics &Computer Science	Thorax Diseases Detection Using Machine Learning	International Research Journal of Technology and Science (IRJTS) Volume:04/Issue:05	May-22	e-ISSN: 2582-5208	https://www.irjmets.com/
Ambadas Deshmukh	First Year Engineering	New Methods for Ranking of Trapezoidal Fuzzy to Obtained Optimum Solution to Fuzzy Transportation Problem	International Journal - Computer Integrated Manufacturing System	Nov-22	2094-0344	https://www.tandfonline.com/toc/tcim20/current
Ambadas Deshmukh	First Year Engineering	Fuzzy database and Fuzzy logic Using Triangular and Trapezoidal Fuzzy Number for coronavirus disease - 2019 diagnosis	Mathematical Statistician and Engineering Applications	Nov-22	2094-0343	https://www.scopus.com/sourceid/21100445641

Smita Mukherjee and Dr. Zubin Mulla	Master of Management Studies	Empowering and Directive Leadership: The Cost of Changing Styles	Business Perspectives and Research	Jan-22	2278-5337	https://www.scopus.com/sources.uri

Memorandum of Understanding with organisations of repute

Organization with which MoU is signed	Name of the institution/ industry/ corporate house	List the actual activities under each MOU year wise	Number of students/teachers participated under MoUs
Chitale Bandhu Mithai Wala, Pune	Chitale Bandhu Mithai Wala, Pune	Project Based Internship	03
VJTI Institute of technology, Mumbai	VJTI Institute of technology, Mumbai	Lab access of VJTI for Students project work	05
YPP Technologies, Mumbai, India	YPP Technologies, Mumbai, India	Planed Activities to be executed	02
Microsystem services, Mumbai, India	Microsystem services, Mumbai, India	Planed Activities to be executed	02
Capgemini Technology Services India Limited	Capgemini Technology Services India Limited	Guest lectue-02, FDP-01	60
ExcelR Solution	ExcelR Solution, Bangalore	Students & Faculties certification	200
Pace Rover Medical Systems, Wardha	Pace Rover Medical Systems, Wardha	E-summit	64
Rishi Digital transformation	Rishi Digital transformation	Advice for curriculum enrichment of Digital Marketing	02
Vihangam Techno Holistic Organization, Pune	Vihangam Techno Holistic Organization	Expert Lecture By Dr. Mangal Dhend	120
Theia New Consultancy LLP (TNC), Navi Mumbai	Theia New Consultancy LLP (TNC), Navi Mumbai.	Expert Lecture Gandhigiri in Corporate life by Mr. Anantha Iyer	124
Scientific Jugaadfunda	MACCIA	Internship	09
DigiSec360IN Solutions Pvt. Ltd, Mumbai	DigiSec360	Honors courses	50
Cloud Counsalage	Cloud Counsalage	Startegic planning	02
Kids Galaxy	Kids Galaxy	Audit Course, Internship	97

Organization with which MoU is signed	Name of the institution/ industry/ corporate house	List the actual activities under each MOU year wise	Number of students/teachers participated under MoUs
Cerebranium	Cerebranium	1. Internships 2. Job Opportunity 3. Expert Lecture	85
Jupiter Hospital	Jupiter Hospital	Internship	05
Wipro GE health care pvt. Ltd	Wipro GE health care pvt. Ltd	Demo Equipment allotted for Project Work	04
AlgOmega IdeaLAB	AlgOmega IdeaLAB, Value 3	Setup innovation concile	20
The University of Toledo college of business and Innovation	The University of Toledo college of business and Innovation	Study and lecture	08

- **Revenue generated from consultancy and corporate training during the year (INR in lakhs) 121000**

Revenue Generated from Consultancy During the Year				
Sr. No.	**Names of the teacher-consultants**	**Name of the consultancy project**	**Consulting/Sponsoring agency with contact details**	**Revenue generated (INR in lakhs)**
1	Dr. Amit Oak	Financial Planning for Superannuation	Venus Academy - Honorarium for MGT PROG - ONGC	Rs. 16,000/-
2	Dr. Sangeeta Joshi	Mock NAAC peer team expert	D.Y. Patil Schools of Engineering	Rs. 5,000/-
3	Dr. Sangeeta Joshi	Academic Support/ Consultancy Services	Vidyalankar School of Information and Technology, Mumbai	Rs. 1,00,000/-
4	Prof. Prakash Parmar	Gateway To GATE	Shah & Anchor college	Nil

- **Total amount spent on developing facilities, training teachers and clerical/project staff for undertaking consultancy during the year 52000**

- **WORKSHOPS /SEMINARS CONDUCTED BY INSTITUTE FOR FACULTY MEMBERS**

Sr. No.	Name	Date
1	Alila Exhibition	27th April 2023

Sr. No.	Name	Date
2	Seminar on IPR and How to write research proposals for funded projects	12th April 2023
3	Guest Lecture Series on Computer Networks	5th to 12th April 2023
4	ALGORHYTHM	16th to 18th March 2023
5	CESA Flagship event-Plethora	13th March 2023
6	Impulse: The Next Gen	10th to 14th March 2023
7	VANGUARD Case Study Conclave	4th March 2023
8	Webinar on "Insights on pursuing MBA from premium institutes in India"	25th February 2023
9	Mutual Funds and Financial Management	22nd February 2023
10	Workshop on data engineering using Python and Cloud Technology	18th and 19th February 2023
11	Online workshop on "API with Postman"	18 February 2023
12	Intel Digital Readiness AI for Future Workforce	16-17 February 2023
13	Invited talk on "Blockchain and its Applications"	15th February 2023
14	Guest Lecture on – Mumbai Dabbawala: Delivering Lunch to Lectures	21st January 2023
15	Hands-On Session- Industrial Application on Machine Learning	20th January 2023
16	Industrial visit to Medirays Corporation	15th October 2022
17	E summit- Entrepreneurship Opportunities in Healthcare	10th - 15th October 2022
18	Workshop on Warli Painting	13th October 2022
19	International Seminar on Google Big query	17th September 2022
20	Live Demonstrations (Mannequins) and Workshop on "Cardiopulmonary Resuscitation -First Aid Technique"	17th September 2022
21	Corridors to Revelation	11th September 2022
22	One Minute Video of your Performance on the Theme of Patriotism	12th August 2022
23	Azadi ka Amrit Mahotsav - Photography Exhibition	8th August 2022
24	Workshop on "Advancements in Radio-Diagnostic and Radiotherapy Equipment"	6th August 2022
25	Webinar on – "Design Thinking "	23rd July 2022
26	IDEATHON	6th May 2022

Sr. No.	Name	Date
27	Team Based Learning (TBL): An Evidence-based Active Learning Strategy	12th May 2022

- **Extension Activities**

National Service Scheme of Vidyalankar Institute of Technology, in pursuit of its service to community and society. various activities undertaken in the neighbourhood community are: NSS-VIT, committed to creating a healthier and more sustainable society, engages in diverse initiatives. Collaborating with the Jay Foundation and Sea fins, we've spearheaded impactful beach cleanup drives, transforming Mumbai's beaches into plastic-free zones during Earth Day and World Environment Day. Partnering with the Beach Please Committee, we've targeted Girgaon Chowpatty and Mithi River at Bandra to combat plastic pollution while preserving natural beauty. Additionally, our collaboration with the CAP Foundation for pet adoption events and the Stray Shelter initiative showcases our dedication to environmental and animal welfare. Health remains a top priority. We actively participate in disease prevention drives, such as the polio vaccination campaign, and advocate for addiction-free living through the De-addiction Rally. Our holistic health approach includes Yoga Sessions, Aerobics Workshops, and Nutrition Awareness Programs. Moreover, our Orphanage Teaching Program, conducted in collaboration with Shivprerna Prabodhini and Hunar Seekho NGO, focuses on bridging educational gaps in remote slums. Notably, NSS-VIT integrates social service as part of its academic curriculum through the Social Service Scheme (SSI), a credit-based course. This initiative partners with the Vihangam Centre for Social Welfare, Hariyali, Seva Sahyog, and Mumbai Gujarati Sangathan, amplifying our impact on societal welfare and encouraging active community engagement among our students

4. INFRASTRUCTURE AND LEARNING RESOURCES

The Institute fulfils all the norms specified by the statutory bodies in terms of land requirement, instructional, administrative and amenities area.

Classrooms: All 36 classrooms are air conditioned. The entire campus is Wi-Fi enabled. All classrooms are ICT enabled with projector facility. In addition, 7 classrooms have smart boards, and 16 classrooms are equipped with "IMPARTUS Lecture Capture" system (LMS).

Laboratories: All 58 laboratories are well-equipped with the latest equipment like Spectrum Analyzers, Logic Analyzer and Vector Network Analyzers. The laboratories have around 47 licensed software/simulation tools like MATLAB, CADENCE, ORCAD, IE3D, OPTISIM, Genesis, Rational Rose, TCAD, Oracle, etc. The Language Laboratory has 20 Apple Machines and training software.

Computing equipment and IT Facilities: The Institute has a central server with 1146 computing machines.

Library: The Central Library is well-equipped with 8176 titles, 41322 volumes and subscribes to both national and international journals like IEEE, EBSCO, K-Hub etc. Other infrastructure: All programmes have dedicated seminar halls. A vibrant auditorium with space of 6000 sq. ft. and 264 seating capacity is also available in the campus.

Awards for Infrastructure: **The institute has received internationally acclaimed "Design Share Honor", "Top Institutional Theatre Design in the world" and "Professional Lighting Design" awards**

The institution has adequate facilities for cultural activities, yoga, sports and games (indoor and outdoor) including gymnasium, yoga centre, auditorium etc.)

The Institute has state of the art and well-maintained sports facilities with full-time qualified Sports Officers to train and guide students. Cultural Activities: Cultural activities are carried out all-round the year at the Amphitheatre, Auditorium, Plaza, and Playgrounds. The institute conducts many dance workshops, movie screenings, skits, rock shows, and theatre workshops. The Annual Intercollegiate Festival – "VERVE" receives participation from around 60 other colleges and has also witnessed the presence of famous personalities like Priyanka Chopra, Ranveer Singh, Arjun Kapoor, Avadhoot Gupte, Nucleya, Aarman Malik, etc. Yoga: The institute has a dedicated Yoga Centre. The institute also conducts many Yoga sessions for students and celebrates international Yoga Day annually. This helps the students to channelize their focus and sharpen the body, mind, and spirit in the right direction. Sports and Games: Indoor games: The institute has earmarked an area (S-Block) known as DEN for indoor sports. It has games like Table Tennis, Chess, Carom, pool, Air Hockey, Foosball, Play Stations (PS4) and Karaoke room. Outdoor games: The Institute has a multi-court for Volleyball, Basketball and Tennis. It also has two playgrounds for cultural activities and outdoor sports like Football, Cricket, Kabaddi, Kho-Kho, Athletics, and a Badminton Court.

- **Library as a Learning Resource**

VIT's library, a haven for intellectual exploration and academic growth, offers an extensive collection of books, journals, and digital resources. To embrace a paperless future, VIT has initiated library automation, powered by its vMIS (Vidyalankar Management Information System) software, accessible to both staff and students through the Internet or Intranet. The library is in the process of migrating to third-party library software for automating all functions. E-resources: For electronic resources, VIT's library subscribes to 190+ journals and 1700+ proceedings via IEEE Xplore, the EBSCO host database with 3900+ academic e-journals, 500+ peer-reviewed journals, and 1800+ magazines. Partnerships with "Spoken Tutorial" offer courses, and K-Hub e-resources provide access to 1000+ e books and 100 magazines. A DrillBit plagiarism software aids academic pursuits. Remote access of e-resources facility is available. Library Usage: The library includes a dedicated reading and reference section with seating capacity of 170+, 10 dedicated desktops for e resource access, 30,000+ volumes and 6,000+ titles. The library offers a vast selection of printed materials, accommodating diverse learning preferences and research interests. The institute has also registered for National Digital Library of India and we actively conduct various activities (6 per year) under the NDL. The Institute has also procured Integrated platform for accessing the e-resources including journals, e-books, magazines etc.

- **IT Infrastructure**

Vidyalankar Institute of Technology is facilitated with extensive computing infrastructure. Institute upgrades ICT enabled infrastructure periodically by procuring suitable software and hardware for the enhancement of teaching-learning and networking capabilities. IT policy of the Institute ensures authenticity of installation of software tools, responsibility of maintenance and timely renewal of all software of the Institution. Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities. Acceptable use of policy is applicable to Employees, Students, Vendors and Visitors. Institute have framed various policies like Procurement, Installation of Hardware, Network, and software. Website Hosting and Database Usage policy has its method and hierarchy which is followed systematically. Institution provides a definite and required annual budget for upgradation of IT facilities which are audited as per the balance sheet and changes in the system as follows: Institute has upgraded from 200Mbps to 500Mbps internet bandwidth (1:1) leased line with Vodafone as the service provider. High-End SOPHOS-SG-430 is the main firewall, offering best performance satisfying expanding security needs. It manages 40 SOPHOS and TP Link with 10 access points. Online Services like application portal, fee payment, marks are visible to students, provisional results are provided to students.

- **Established systems and procedures for maintaining and utilizing physical, academic and support facilities – classrooms, laboratory, library, sports complex, computers, etc.**

VIT's Department of Facility Management (FM) diligently maintains and optimizes educational, physical, and support facilities Maintenance of Physical Infrastructure and Support Facilities: FM ensures both routine and preventive maintenance. Housekeeping employs automated tools for daily cleaning, and skilled professionals handle minor repairs. Preventive maintenance encompasses painting schedules, structural audits, fire safety equipment servicing, HVAC maintenance, CCTV upkeep, lift maintenance, water and septic tank cleaning, audio-visual system maintenance, pest control, and smart board maintenance through contracted services. Maintenance of IT Infrastructure: The institute's IT department, including a system administrator and support staff, manages the IT infrastructure, which includes desktops and networking hardware. Utilization of Facilities: Classrooms/Laboratories/Tutorial Rooms: The FM department conducts pre-semester maintenance to ensure proper functioning of fixtures, AC systems, and furniture. Library: The librarian and support staff maintain the library through in-house Library Management Software, with the assistance of a library committee for resource procurement. Sports Complex: The sports department, with instructors and a sports officer, manages sports facilities and maintenance. They also organize sports events, training sessions, and matches. Through these systematic procedures and dedicated departments, VIT ensures proper upkeep and effective utilization of facilities, promoting academic and physical well-being.

5. STUDENT SUPPORT AND PROGRESSION

- Number of students benefitted by scholarships and freeships provided by the Government during the year 1379

- Number of students benefitted by scholarships and freeships provided by the institution and non-government agencies during the year 109

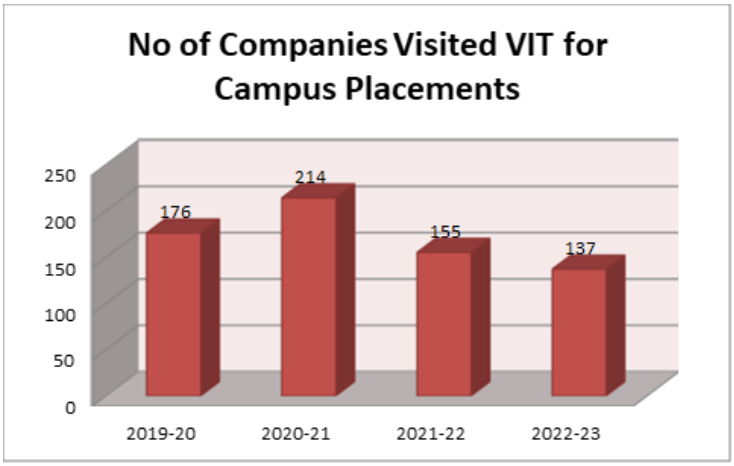
- **PLACEMENTS – Batch 2023**

  To prepare students for the workforce VIT provides students with comprehensive pre-placement training, which includes aptitude tests and mock interviews. Third-year students are encouraged to take part in various internship programmes at reputable companies during their semester break. VIT also holds AMCAT aptitude exam sessions. Reputable campus placements include TCS, L&T Infotech, Capgemini, ATOS India, Media.Net, Interactive Brokers, ZEUS Learning, Reliance Retail, Reliance Jio, and BYJUS, to mention a few.

  - Maximum Salary : 10.00 lakhs per annum
  - Minimum Salary : 1.56 lakhs per annum
  - Average Salary : 3.90 lakhs per annum
  - Median Salary : 3.50 lakhs per annum

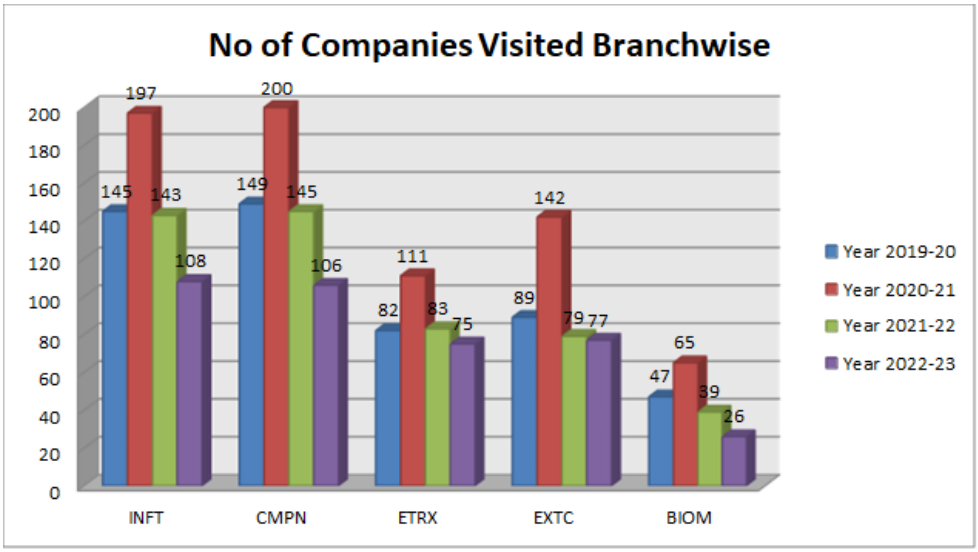
No. of Companies visited VIT for Campus Placements

Sr. No.	Year	No. of companies visited
1	2019-20	176
2	2020-21	214
3	2021-22	155
4	2022-23	125



- **Summary of Students Placed Branch – Wise**

Branch	Year			
	2019-20	2020-21	2021-22	2022-23
Information Technology	145	197	143	108
Computer Engineering	149	200	145	106
Electronics Engineering	82	111	83	75
Electronics and Telecommunication Engineering	89	142	79	77
Biomedical Engineering	47	65	39	26



- **No. of Offers Year wise & Branch wise**

Sr. No.	Branch	2019-2020	2020-2021	2021-2022	2022 - 2023
1	INFT	133	178	234	165
2	CMPN	161	171	136	162
3	ETRX	26	44	80	50
4	EXTC	82	113	113	121
5	BIOM	17	14	6	25
6	ME	1	1	0	0

- **Internships**

Sr. No.	Department Name	Number of Students
1	Information Technology	34
2	Computer Engineering	15
3	Electronics Engineering	14
4	Electronics and Telecommunication Engineering	54
5	Biomedical Engineering	29
6	Master of Management Studies	105

- **PARTICIPATION IN NATIONAL COMPETITIVE EVENTS AND HACKATHONS**

Sr no.	Name of the competition	Organized by	Level	Student participation	Awards
1	KAVACH 2023-Cyber Security	AICTE, MoE	National	Student participation in Internal hackathon = 108 Student participation in External hackathon= 66 Teams Won= 01	1st Prize, 1 Lakh prize amount (1 team)
2	NABARD Hackathon 2023	Global Fintech Fest	National	Student participation in External hackathon= 05 Teams Won= 01	1st Prize, 1 Lakh prize amount (1 team)
3	Technoxian 2023-World Robotics competition	World Robotics forum	International	Student participation = 40 Teams Won= 01	3rd Prize, 15000 Prize amount (1 team)
4	SIH 2023	AICTE, MoE	National	Student participation in Internal hackathon = 400 5Student participation in External hackathon= 18	3 teams participated in Grand Finale, National level
5	Technovation 2023	IEEE	State level	Student participation = 06 Teams Won= 01	Best Female team, 2500 Prize amount
6	Techathon 23-Hardware Hackathon	TSEC	State level	Student participation = 16 Teams Won= 01	3rd Prize, 10000 Prize amount (1 team)
7	Technovation 2023	IEEE	District Level	Student participation = 06 Teams Won= 01	Best Female team, 2500 Prize amount
8	IEEE R10	IEEE	District Level	Student participation = 12 Teams Won= 02	2ND Prize 5000 INR 3rd Prize 3000 INR
9	CIIA 2023	Marshals	National Level	Student participation = 15	4 teams will be participating in Grand Finale
10	GOLC Online Lab Award	Global Online Lab awards	INTERNATIONAL	Student participation = 06	1st Prize International Winner, Sponsorship of 1 person to Finland
11	Skill India Comepetition 2023	AICTE, MoE	National	Student participation = 24	Competition to be held in 2024

- **TIH-IOT IITB Project Information**

Dr. Dhananjay Patel, Associate Professor, Electronics and Telecommunication Engineering Department, Vidyalankar Institute of Technology (VIT) has received 4 project grants under the **CHANAKYA Fellowship Program 2022-23 (3)** from Technology Innovation Hub (TIH) – Internet of Things (IOT), Indian Institute of Technology (IIT) Bombay under the flagship of Department of Science and technology (DST). The professor along with the student groups mentioned would be working on the industry problem statement under his supervision.
The title of the project is as follows:

1. CFP/2022/A/031 - Design and Fabrication of Onion Harvester
2. CFP/2022/A/019 - Trichoscopy and Trichogram Analysis
3. CFP/2022/011 - Smart Ploughing Device
4. CFP/2022/A/011 – Voice Controlled Robot

The fellowship amount has been disbursed by TIH-IoT to our Institute and the Institute will disburse the fellowship to each student subject to verification of documents by TIH IoT and subsequent issuance of Sanction Letter. The institute have also received the Sanctioned letter which is attached with the document.

This project will be executed at our institute for the duration of 10 Months from the date of start of the project which is 1st April 2023. The students selected under the scheme are entitled to get a monthly fellowship of INR 10000/- for the entire project duration along with the contingency/consumables grant of INR 20000/- per student. The students will utilize the contingency grant towards making of the project, travel, publication, IPR etc. The total grant of Rs 6,00,000 (Rupees Six Lakhs Only) has been disbursed by TIH-IoT under TIH- IoT CHANAKYA Fellowship Program to a designated Bank account of the Grantee Institute per project group. In total, we have received a funding amount of INR 2400000/- out of which INR 2000000/- will be used towards the payment of the stipend to the students and INR 400000/- will be used towards the development of the projects.

Sr. No.	Name	Mobile	Email-id	Roll Number
1	Vedant Nitin Bherde	9930507285	bherdevedant@gmail.com	20104A0083
2	Sumit Pramod Patankar	8956255733	sumit.patankar@vit.edu.in	21104B2008
3	Avinash Dhiran	9326832776	avinash.dhiran@vit.edu.in	21104A0072
4	Viraj Arvind Ratadiya	8104514563	viraj.ratadiya@vit.edu.in	21104B0031
5	Mohammed Siddique Khot	9326306211	mohammedsiddique.khot@vit.edu.in	20101A0048
6	Aditya Sanjeevan Waghmare	8424050111	aditya.waghmare@vit.edu.in	20101A0045
7	Divyanshu Navneet Jain	8591018676	divyanshu.jain@vit.edu.in	20101A0046
8	Shreyash Ravindra Kakde	9004418648	shreyash.kakde@vit.edu.in	20101A0049
9	Purva Anil Masurkar	8454053794	purva.masurkar@vit.edu.in	20101A0067
10	Safwan Ali Sayyed	9082289046	safwanali.sayyed@vit.edu	21104B2011
11	Chaitan Koli	8433565693	chaitan.koli@vit.edu.in	21104B2007
12	Yash Jadhav	9867754557	yash.jadhav20@vit.edu.in	20104A0017
13	Manomay Rapte	9867124822	manomay.rapte@vit.edu.in	21104A0064
14	Sai Vasant Khot	9326030004	saikhot1438@gmail.com	20104B0053
15	Tanmay Nilesh Pednekar	9619609636	tanmay.pednekar@vit.edu.in	20104B0067
16	Sarthak Sunil Waghmode	8169618271	sarthak.waghmode@vit.edu.in	21103A0016
17	Bhakti Kiran Talele	9372861871	bhakti.talele@vit.edu.in	21104B0068
18	Tanmay Eknath Gurav	8779688500	tanmayeg31@gmail.com	20104B0043
19	Abhishek Abhijit Kalyankar	9082384200	abhishekkalyankar7@gmail.com	20104A0021
20	Omkar Sameer Vichare	8080778308	omkar.vichare@vit.edu.in	20104A0063

- **Presence of an active Student Council and representation of students in academic and administrative bodies/committees of the institution**

The student council, encompassing the cultural, technical, sports and literary council, plays a pivotal role in providing a well-rounded educational experience for students & overall development of students by fostering cultural understanding, technological literacy, physical fitness and literary skills. Students participate in student council activities and gain valuable leadership experiences, learn to collaborate effectively and develop a sense of responsibility towards. Thus, the student council serves as a catalyst in creating a vibrant, inclusive, and nurturing educational environment, preparing students for success in personal and professional lives.

In addition to this, Student Associations like ITSA, CESA, EESA, ETSA, BMSA, are also established in each department. Student Chapters and Student Associations in Vidyalankar actively organize various technical workshops, invited talks, skills and knowledge enhancement program, technical seminars etc.

Our students are associated with professional bodies such as ACM, CSI, IEEE, ISTE, IETE, BMESI, Master of Management Studies Professional Body (MMPSB) through establishment of Student Chapters.

Our students represent as member of Department Advisory Board (DAB) of their parent department which is crucial for fostering student engagement, empowerment and inclusivity. By involving students in decision-making processes, we ensure that the student voice is heard and considered.

- **Alumni Engagement**

The Alumni Committee connects alumni to the Institute through various digital means, and alumni contribute significantly to institutional development. Vidyalankar Institute of Technology (VIT) has devised mechanisms like the Alumni Committee, Directory, and the Alumni App "Alma Shine.

Since 2003, The Alumni Committee has nurtured a bond with the alma mater and receives feedback on curriculum delivery, assessment mechanisms, and guest sessions on alumni success stories to enhance employment opportunities and create a networking platform

VIT has a highly informative alumni directory having data on its alma mater from 2003 till date. The Alumni Directory keeps track of alumni with different sorting methods, and the Alumni Android app has over 6000 registered alumni. VIT takes pride in its star alumni who hold eminent positions in Apple, Qualcomm, Ericsson, CISCO, Deloitte, Intel, Morgan Stanley, IBM, Samsung, Amazon, and Barclays.

VIT alumni contribute to the Institute's development through guest lectures, sharing success stories, career counselling, and organizing international educational tours to reputed institutes, serving as members of DAB to facilitate curriculum enrichment, and as members of IQAC for quality enhancement in different aspects like Industry-Institute interaction, Value added courses, Start-ups, placements, etc.

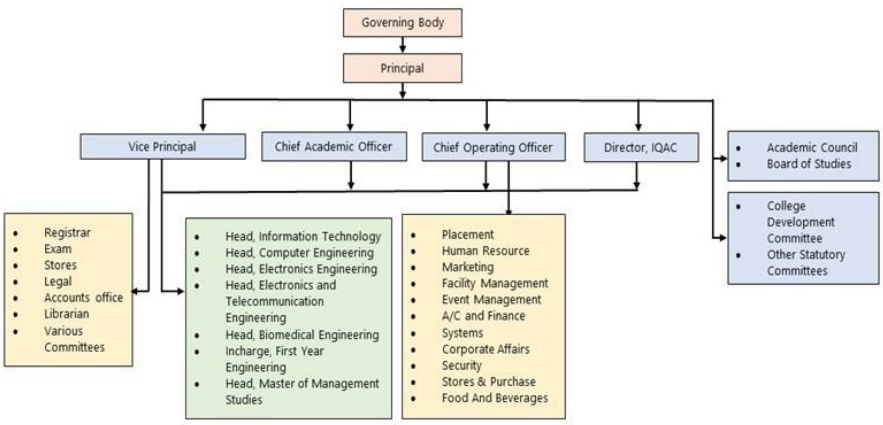
6. GOVERNANCE, LEADERSHIP AND MANAGEMENT

Vidyalankar Institute of Technology is a teaching learning organization with dynamic leaders and dedicated staff members striving for good institutional governance. The Institute has taken deliberate and consistent efforts steps to bring about continual improvement in the effectiveness of learning experience of the students. Over the years, the Institute has been accredited by various agencies such as NBA and NAAC with excellent grades.

The Institute is managed by a Governing Body (GB) constituted as per the guidelines stipulated by AICTE, which is the apex body governing the Institution. VIT has decentralized its operations and delegated powers to the authorities at various levels to ensure good governance.

- Principal: - Academic and Administrative head who monitors the overall functioning of the Institute.
- Vice-Principal, Chief Academic Officer (CAO) and Chief Operation Officer (COO): For efficient functioning of day-to-day administration and coordination between various functions.
- Director, IQAC: Identification and monitoring of opportunities for continual improvement in institutional processes and practices.
- Controller of Examination: For managing the examination process at the Institute. This includes overseeing the conduct of examinations, coordinating the evaluation process, and preparing results.
- Heads of the Departments: Ensure curriculum planning, content delivery, feedback, and continual improvement of the Department. Department functionalities are further supported by Department Academic Officer (DAO), Academic Coordinators, Class Teachers and Non-Teaching staff to coordinate the academic and administrative activities.
- Department Advisory Board (DAB): Each Department has a Department Advisory Board (DAB) which is an industry-academia interface proactively involved in curriculum enrichment activities, outcome assessment and project quality control.
- Cluster Mentors (Industry, Academia and Internal): Identification of gaps in syllabus, strengthening of Academic Administration Plan
- Special Institute Level Committees: Helps the students in achieving academic goals. Support Services: Supporting services are in place, which include Registrar's Office, Finance and Accounts Department, HR Department, Library, Examination Cell, Training and Placement Office, Scholarship Department, Facility Management, Stores, Systems and Security.

Organogram of the Institute



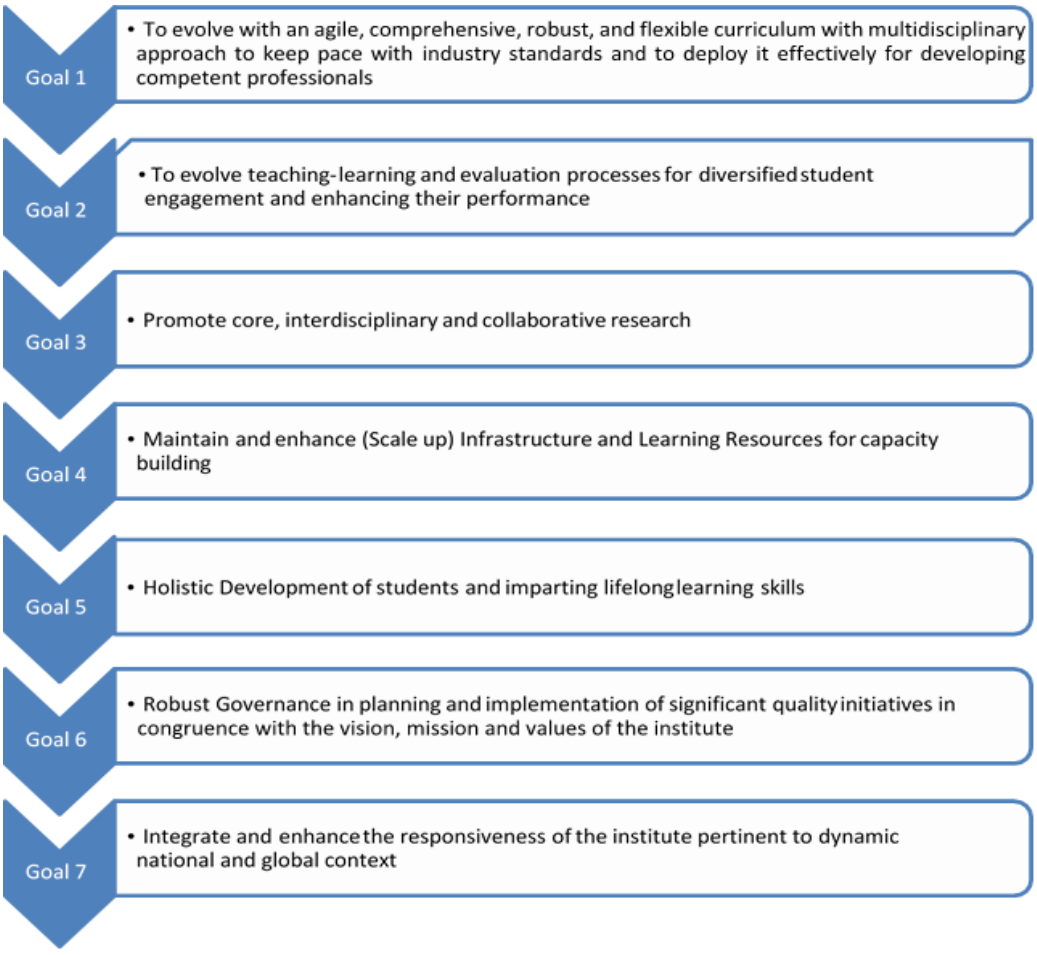
- **STRATEGY DEVELOPMENT AND DEPLOYMENT**

The world is undergoing rapid changes in the knowledge landscape. The global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for Sustainable Development, adopted by India in 2015 - seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. Various scientific and technological advances such as the rise of big data, machine learning, and artificial intelligence will lead the many unskilled jobs to be taken over by machines. However, the need for a skilled workforce, particularly involving mathematics, computer science, and data science, in conjunction with multidisciplinary abilities across the sciences, social sciences, and humanities, will be increasingly in greater demand.

Higher education institutes are entrusted with the responsibility to strengthen the workforce which is equipped with a high order of scientific and technological capabilities, robust humanist and philosophical thought and creativity. Thus, every educational institute should have a strategic plan which spells out what it expects to realize in the long run, and continuously strive towards implementing the same. The planning must be constant and persistent, yet adaptive and responsive to rapidly changing conditions.

Government of India has launched its National Education Policy (NEP) 2020 in July 2020. As of now, our college is an affiliated college of the University of Mumbai. In coming years (from 2020-2025) we may expect autonomy status under the mentorship of University of Mumbai than a full-fledged university status. So, Considering the NEP 2020 as a reference point along with our current affiliation with the University of Mumbai, we would like to set following goals and objectives.

Strategic Goals



- **STAFF EMPOWERMENT STRATEGIES**

The Institute has following empowerment strategies –

The Institute has following effective welfare schemes for the benefit of its teaching and non-teaching staff.

1) Teaching Staff: Reimbursement of fees paid for STTP's/Workshops as per policy, laptops to every faculty to encourage the use of modern teaching aids.

2) Non-Teaching staff: Sponsorship/Fee Reimbursement for Workshop/Training as per policy, appointment on compassionate grounds to a dependent family member of an employee who has expired while in service, three sets of uniform to non-teaching staff; the entire cost is borne by the Institute.

3) All staff:

- Leave/Reduced teaching load to pursue Masters/Doctoral research provided to faculty completing two years of continuous service, various leaves like casual leave, sick leave, earned leave, maternity leave, study leave and compensatory leave as per the HR policy.
- All staff are eligible for Gratuity after completing continuous service of minimum 5 years, Leave Travelling Concession once in a block of two calendar years, coverage of medical insurance up to 1 lakh.
- First Aid boxes on campus, a full-fledged Gymkhana offering recreational facilities, health awareness programs like yoga sessions, Meditation and Resilience, CPR etc., professional counsellor to address students & Staff.
- To recognize and appreciate contributions by the staff, institute has a Performance Appraisal system.

Following policies are in place for all staff-

i) Industrial visit
Staff members are allowed to go on Industrial tours and are not required to pay any tour Costs and the expenditure shall be covered by the Institute.
ii) Leave Travel Concession Policy
The concession is admissible to staff members and their family members traveling to their hometown and back, once in a block of two calendar years.
iii) Book Allowance Policy
Teaching staff members who have completed two years of continuous service shall be eligible to avail of a book allowance per year of Rs 1000 or the actual cost of book/s whichever is minimum.
iv)Mediclaim Policy
The Institute has a group Mediclaim insurance policy which offers medical cover for illness and hospitalization up to a specific sum of Rs one lakh per insured staff.

- **IQAC Initiatives**
- The Institute received autonomous status for a period of ten (10) years from the session 2022-2023 to 2031-2032 from UGC (vide letter No. F 22-1/2022(AC) dated March 15, 2022) and University of Mumbai (vide letter No. Aff. /ICD/22-23/507 dated June 20, 2022). The University of Mumbai The first batch of Autonomy students is admitted in the A.Y. 2022-23. The autonomy curriculum and evaluation methodology specified by each Programme Board of Studies and Academic Council are successfully implemented.

- National Board of Accreditation (NBA) team visited the institute on November 25-27,2022, for accreditation of 3 UG departments namely Department of Electronics Engineering, Department of Electronics and Telecommunication Engineering and Department of Biomedical Engineering. Accreditation has been granted to these three programmes for three academic years viz. 2022-23,2023-24 and2024-25 i.e., up to June 30, 2025.
- "My Time table" feature: Student have been given opportunity to prepare their own timetable by selecting the suitable time slot of their choice and selecting the subject teacher of their choice. Normally, Institute provides the choice of 2-3 Course Teacher per subjects
- Advanced Learning feature: Institute also offers substantial academic flexibility by allowing students to take the courses they want and finish them at their own pace Although each 4-year UG degree programme has a defined set of recommended courses for each semester based on the knowledge map, all courses offered by the institute, irrespective of the programme, will be open to students for registration. Students may enroll in the courses they want to take as long as they meet the prerequisite requirements for those courses. This enables students to enroll in courses at their own pace as faculty may offer courses in both semesters. Students have been given the opportunity to complete the Higher semester courses well in advance along with lower semester courses. This will facilitate them to get more time in higher semesters to get engaged in developing projects and internships.

7. INSTITUTIONAL VALUES AND BEST PRACTICES

- **Measures initiated by the Institution for the promotion of gender equity during the year**

As a learner-centric Institute, VIT believes in affirmative action when it comes to equality, inclusivity and diversity by providing equal opportunities to its students and staff without any discrimination on the basis of gender, religion, caste, provincial, urban-rural grounds. Gender-related issues are addressed directly or indirectly in courses like Entrepreneurship Management and Environmental Studies. Modules on Gender bias and Human rights including, sexual and reproductive rights, the rights to equality and non-discrimination, women entrepreneurship, values and gender socialization are discussed in these courses. The Institute implements the State Government's 30% ladies' reservation policy for admission. The Institute has Women Development Cell and IEEE Women in engineering committee to promote and encourage female students and employees for their overall development through various activities. The institute also formulated an Internal Complaint Committee which conducts the meeting once in a semester. The major goal of the committee is to plan an activity with University of Mumbai under ICC and to discuss on incidents or complaints of harassment of girl students and women employees in the institute. Also, it organizes various Open Dialog sessions on Gender sensitization with students and faculties. A Gender Equity survey is carried out to assess the gender representation and equity practices among student and faculty member. The survey aimed to gather feedback on the current state of gender equity at the institute and to gauge student and faculty members confirm with the existing systems and practices

- **Facilities in the institution for the management of the following types of degradable and non-degradable waste**

Waste Management at Campus: Institute makes deliberate measures to handle degradable andnon degradable waste and emphasizes on maintaining clean campus. All are encouraged to adopt the 3Rs, namely Reduce, Reuse, and Recycle.

Solid Waste Management Practices: The use of Styrofoam in the cafeteria is not permitted. Campaigns are conducted to reduce the use of plastic both on and off campus. Organic and nonbiodegradable (Dry) wastes are collected in Page 63/132 23-02-2024 02:40:23 Annual Quality Assurance Report of VIDYALANKAR INSTITUTE OF TECHNOLOGY green and blue dustbins. A composting facility is in place for generating high quality manure.

Liquid Waste Management practices: Wastewater management at campus includes cleaning plant areas, sludge removal, dewatering, and tank cleaning. A sewage Treatment Plant (STP) with a capacity of 200 m^3 per day is in place to take care of wastewater generated. Water is REUSED in green landscaping through sprinklers

E-waste management practices: Regular maintenance by technical staff and reutilization of spare parts of discarded electronic devices is a common practice. To sensitize students and staff on the careful disposal and management of electronic waste, an E-waste bin is installed at VIT. E-waste is collected by a company called Eco Recycling Ltd (Ecoreco). Non-functional computers, monitors, and printers are discarded in an eco-friendly manner. To create awareness about E-waste and its harmful effects on humans and the environment 'An E-waste awareness campaign' is conducted.

- **Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities**

An online event was conducted on August 15, 2022. The event was conducted under the aegis of AICTE'S 'Azadi ka Amrit Mahotsav' thereby taking a strong step towards 'Ek Bharat Shreshtha Bharat'. Navratri Ustav 'Ras Garba' was celebrated on 29th September 2023. Diwali week celebrated from18th to 20th October 2022, where the classical prodigy shined to its fullest potential through different events like Lenten making workshop, Rangoli competition, Diwali exhibition and Killa making. Various events like 'Shivaji Maharaj Jayanti' on 23rd June 2022, to celebrate different traditions on 23rd March 2023, 'Telescope handling and stargazing' workshop on 12th June 2023, short story making competition titled 'Mirage of words' on 10th January 2023, 'Author's meet and greet' on 27th March 2023 were conducted

- **Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens**

The institute engages in programmes to raise awareness of the fundamental rights and responsibilities of Indian citizens, instilling in staff and students the ideals of constitutional responsibility

Dr. Surendra Pathak, a specialist in the area of "Universal Human Values," led a session for students as part of the induction programme on November 7, 2022. The primary objective to nurture student's various differences in human behaviour and virtues. It aimed to imbibe happiness in every student through right understanding and right thought. Code of conduct is disseminated in orientation program at the beginning of every semester.

On 11th February 2023, event titled as 'Energy Audit' was organised. Objectives of an event to enlighten the students about the planning and organising of our energy resources while maintaining our sustainable ways. It aims to provide us platform for the verification, monitoring and analysis of use of energy.

In order to sensitise students and staff to the constitutional mandate, many programmes such as 'Orphan Teaching,' 'Beach Cleaning,' 'Mithi River Cleaning', 'Crowd Management,' 'Non-Violence session', 'Say yes to life and No to drugs', 'Yoga and fit health awareness' were conducted during 2022-23.

- **Institution celebrates / organizes national and international commemorative days, events and festivals**

National festivals observed at VIT include Marathi Bhasha Divas, Independence Day and Republic Day. Also, institute celebrates international yoga day

Republic Day: Students and staff of all Institutes on the campus assemble every year on 26 January on the occasion of Republic Day and attend flag hoisting followed by a systematic parade by security guards

Independence Day: Independence Day is celebrated every 15 August in VIT with a flag hoisting ceremony followed by a systematic parade by security guards. To promote unity and harmony, various institutes on the campus showcase cultural program together. One of the events organized by NSS VIT was a Skit Play to remember the contributions or great freedom fighters of the Country

International Yoga Day: The International Day of Yoga was celebrated in VIT to contribute to the global cause of honing and withholding the ancient and serene practice of physical wellbeing in conjugation of mental serendipity. The event was conducted in the M-501 room hosting approximately 30 participants which included a mix of students and faculty members alike.

- **Best Practices at Vidyalankar Institute of Technology**

Vidyalankar Institute of Technology, over a period of 24 years, has developed many best practices which have enhanced the quality of teaching and learning, two of which are explained below:

1. Enhancing Technical Competency through Problem Based Learning
2. Enhancing Learning Experience through Lectures by Faculty of International and National Institutes and Experts from Industry

1. Enhancing Technical Competency through Problem Based Learning

Brief Description of Practice

At VIT, engineers are nurtured to be solution providers. Problem-based learning (PBL) is a learner-centric pedagogy prevalent at VIT in which our students learn technical concepts through the experience of solving an open-ended problem. In PBL, the teaching strategy is hands-on and experiential learning wherein the course instructor presents a problem to the learner for which a feasible possible solution needs to be generated. Through active learning, the students discover and work with content and technology that they determine is necessary to arrive at a solution. PBL emphasizes self-directed learning (as opposed to rote-learning and recall) and promotes groupwork.

Process

In the process, students are given a list of problems to choose from which are well-defined and carefully compiled by the course instructors. Problem statements are identified by current demands in research and industrial applications, and service to community. One major source of PBL statements is published hackathon statements, which are basically derived by industrial experts as per their requirements. The PBL methodology is implemented across all programs and in many courses. It is mandatory inclusion in almost all lab courses. Students discuss the chosen problem statement and list its significant parts and its possible solutions with use of appropriate technological tools. In the process, students gather information and learn new concepts, principles, or skills as they engage in the problem-solving process. Their problem-solving skills are honed through internal hackathons.

Outcomes

PBL led to major significant reforms at VIT. By implementing PBL methodology, teachers are transformed to being "facilitators" rather than being mere "disseminators" who will help learners to develop intrinsic interest in the subject through problem analysis, discussion, and implementation of most feasible solutions. Learning through PBL results in enhanced creative thinking skills and enables us to probe the students for higher order thinking skills (like apply, analyse, evaluate, and create). Students get an opportunity to work on real life problems. The emphasis of content delivery is more towards an application-based approach instead of merely teaching theory. One of the outcomes of the implementation of PBL is that over the years, VIT students have been consistently bagging top prizes by winning various prestigious competitions at national level (Smart India Hackathon, Kavach, NABARD Hackathon, Technicians) while solving industry-level problems in software as well as hardware editions. Some examples on which our students provided award-winning solutions are "Financial inclusion in Remote Areas: Digital Financial services for unconnected Regions", "Real time accident identification and alerting emergency systems" by Maruti Suzuki, "Lack of Information about Academic Activities on a single platform" by AICTE.

VIT is equipped with all the resources and the lab infrastructure required for the implementation of PBL which is now a well-established outcome-based and best practice at the Institute.

2. Enhancing Learning Experience through Lectures by Faculty of International and National Institutes and Experts from Industry

Brief Description of Practice

VIT has always believed in providing an enriched learning experience for our student community. Guest lectures by experts from industry as well as other academic institutions are a well-established practice in the teaching-learning process at the Institute. One guest lecture per course per semester is mandatory since 2014, which is a unique practice at the Institute. Taking this practice to the next level, VIT has initiated a practice of an entire course to be conducted by external instructors from universities abroad or prestigious academic institutions like IITs or NITs or by industry personnel to enable sharing of cutting-edge technology.

Process

Once the course and the appropriate external faculty are identified, the execution of the course is planned and the resources required are identified. The external faculty are supported by an internal shadow teacher, who is assigned to take responsibility for the course operational support and personalized learning assistance of the learners. In case the external faculty member is not always available, the shadow teacher steps in to support the learners in case of queries, assessment, or feedback on projects. The course may be conducted online, offline, or in blended mode. This practice was initiated in the Academic Year 2022-23 at the Institute, and is being implemented for students of second year, third year and final year of engineering.

For instance, the course "Analysis of Algorithm" was conducted by Prof. Dr. Rajiv Gandhi (Professor at Rutgers University) in online mode for the fourth semester students of Second Year Computer Engineering. On similar lines, the course Data Mining & Business Intelligence was conducted by Mr. Vishal Bhalla, CTO of a company based in the USA, in online mode for the sixth semester students of Third Year Information Technology. At the Institute level, the students' learning and assessment were supported by internal faculty from the respective Departments under the concept of shadow teaching for these two courses. As per the Institute's provisions of Autonomous rules and regulations, these faculty have changed the method of evaluation in tune with their pedagogical approach.

Outcomes

Such lectures by external instructors are an opportunity for learners to be acquainted with alternative technologies, diverse perspectives, information from varied sources, and sharing of professional experiences by experts. It also offers opportunities to the faculty members to collaborate with external resource personnel and enrich their academic preparation and get valuable exposure to industry applications and experiences. Students' feedback is also observed to be good with such initiatives.

The Institute is dedicated to achieving excellence in the processes of instruction and learning. The Institute has aggressive and well-organized faculty development initiatives in place.

The Institute supports holistic, interdisciplinary, and hands-on learning to improve students' skill sets and implements strategies for their academic development.

Faculty and students often conduct research and development projects at the institute.

The Institute's faculty members take more effort to secure outside funding and consultancy for various kinds of projects and research activities.