

INSTITUTIONAL DEVELOPMENT PLAN AT DIFFERENT PERIODS DURING 2024-29

TO TRANSFORM VSSUT TO A MULTIDISCIPLINARY ENGINEERING AND RESEARCH UNIVERSITY (MERU)



**VEER SURENDRA SAI UNIVERSITY OF
TECHNOLOGY BURLA, SAMBALPUR
APRIL 2024**

INSTITUTIONAL DEVELOPMENT PLAN (2024-29)

1. EXECUTIVE SUMMARY

Veer Surendra Sai University of Technology (VSSUT), Burla was established in 1956 as an engineering college in the name of the University College of Engineering (UCE) to solve a problem in society. As Hirakud Dam, independent India's first multi-purpose river dam was commissioned, there was a need for home-grown engineers to operate and maintain the dam that was meant to control floods, the powerhouse to generate power and a canal system to irrigate vast tracts of land.

In the span of 68 years, the University has produced over 40,000 alumni. It has dedicated itself to the infrastructure, industrial growth, and socio-technical development of the state and nation as a whole. The roads, ports, dams, power plants, transmission lines, industries, irrigation projects, and rural electrifications are built in Odisha with the overwhelming participation of its alumni. It has been playing a key role in the rural and urban developmental programs of the region; it is the central monitoring centre for the State Government's programs such as Pradhan Mantri Gramya Sarak Yojana (PMGSY), Watershed projects, etc. Its alumni can be seen in the Boardrooms of leading PSUs and private companies; they occupied top positions in the Indian Army / Navy / Air Force, DRDO, and ISRO; they are on the faculty boards of almost all IITs, NITs, and many foreign Universities.

The legendary institute had made a modest beginning in 1956 by taking 30 students each in three departments, viz Civil, Electrical & Mechanical, operating from the make-shift workshop of the Hirakud Dam. VSSUT presently offers 10 B.Tech., 22 M.Tech., B.Arch., MCA, and 3 M.Sc. programs. The University has carved a name for itself for its undiluted and uncompromising approach to education and the intensity of its teaching. In recognition of its contribution to society, the State Government upgraded it to a technical university in 2009. Almost all B.Tech. programs are NBA accredited and the rest have been applied for accreditation. Today, its student intake is 1644 in B. Tech, M. Tech, M Sc, MCA, Ph. D. and the total student strength on the campus is 4956. Presently, in addition to its rich undergraduate programs, it has preserved the strong legacy of research culture in terms of Post-graduate and research programmes in all disciplines of science and engineering. More than 150 Research Scholars are pursuing their Ph. D. in various disciplines. VSSUT has been identified as the nodal centre of the AICTE Quality Improvement programme for pursuing Ph.D. and also as the centre for National Doctoral Fellowship (NDF) Scheme by AICTE. Ph.D. students are enrolled under the NDF scheme from 2018-19.

The institutional plan or the strategic plan for VSSUT consolidates on existing strengths and focuses on the future growth path of the university by identifying the most pressing issues that need careful attention and require distinctive actions, and suitable action plans to achieve the institute's aspirations. In view of fast changing dynamics of social, economic and technological changes, the university's strategic plans are critical and they need to be monitored and updated.

These strategic plans provide an opportunity to bring out clearly the accomplishments of the university and deliberate on what needs to be done and evolve strategies that will guide the Institute in the right direction. These strategic plans provide action plans to be implemented in a phased manner to fulfil the goals and objectives set for the university. After a detailed discussion with all stakeholders, the strategic plan for VSSUT is driven by the following priorities.

1. Academic Excellence
2. Research & Innovation
3. Up-to-date infrastructure
4. Internationalization through collaborations
5. Skill Development & Industry Partnership
6. Promote entrepreneurial culture
7. Sustainability practices
8. Decentralized system with well-defined roles and responsibilities
9. Improvement in Accreditations and Ranking

2. VISION

To emerge as an internationally acclaimed Technical University to impart futuristic technical education and creation of vibrant research enterprise to create quality engineers and researchers, truly world-class leaders and unleash technological innovations to serve the global society and improve the quality of life.

3. MISSION

The Veer Surendra Sai University of Technology, Odisha, Burla strives to create values and ethics in its products by inculcating depth and intensity in its education standards and need-based research through

1. Participative learning in a cross-cultural environment that promotes learning beyond the classroom.
2. Collaborative partnership with industries and academia within and outside the country in learning and research.
3. Encouraging innovative research and consultancy through the active participation and involvement of all faculty members.
4. Facilitating technology transfer, innovation and economic development to flow as natural results of research wherever appropriate.
5. Expanding curricula to cater to broader perspectives.
6. Creation of service opportunities for the upliftment of the society at large.

4. CORE VALUES

1. **Integrity**- Practicing duties in a truthful and justifiable manner, displayed through righteous conduct in all accomplishments.
2. **Accountability**- Being responsible and answerable for all accomplishments.
3. **Transparency**- Visibility and accessibility of information and practices to all concerned.
4. **Excellence**- Continuously delivering outstanding quality in all areas of performance by fostering intellectual growth.
5. **Equality**- Involving all cross-sections of society by providing equal opportunity to all in pursuit of higher education, jobs and other activities.
6. **Discipline**- Being sincere, regular, punctual and rule-abiding.
7. **Teamwork**- Working together to achieve a common goal in all ebbs and tides.
8. **Sustainability**- Having concern for nature, environment and resource utilization for a long-lasting, safe and better future.

5. SWOC ANALYSIS

STRENGTHS

1. Undiluted academic standards for 66 years
2. Strong and worldwide Alumni network
3. Performing students – beating IIT / NIT students in national-level competitions.
4. Adequate quality faculty

WEAKNESSES

1. Inadequate, aged Infrastructure
2. Outdated Lab equipment, application software
3. Absence of specialized R & D labs
4. Inadequate IPR, Sponsored Research & Consultancy
5. Inadequate student recreation facility
6. Weak Academic Outreach

OPPORTUNITIES

1. Massive industrialization in Odisha asking for more quality engineers
2. ~ 300 Acre Land for expansion
3. Surrounded by institutes & industries
4. Attitude of students toward product development and incubation

CHALLENGES

1. Inadequate funding for an institute as vast in infra & student base as IIT, or NIT
2. Peer institutes growing in size
3. Locational disadvantage regarding communication
4. Discrete academic and residential campuses

6. MAJOR GOALS (2024-29)

1. Proper functioning of “Schools” as per the IDP approved by SDTE Department, Govt. of Odisha.
2. Proper implementation of the courses and its syllabus as per NEP-2020.
3. Creating an IT-enabled fully furnished smart classroom complex.
4. Procurement of advanced equipment and scientific instruments for science & engineering courses.
5. Creation of a laboratory complex.
6. Creation of residential facilities for students and staff.
7. Renovation and extension works of existing buildings.
8. Recruitment of Teaching and Non-Teaching staff.
9. Promotion of Teachers in the different cadres.
10. Proper functioning of training & placement cell.
11. Campus improvements, such as planarization, floorization and gardening leading to the development of a green campus.
12. 80% utilization of electricity through the solar plates.
13. Upgradation of existing stadium for various sports activities.
14. Functioning of swimming pool and furnishing of gymnasium.
15. Provision of an alternative road to Burla town to make an integrated campus for the university.
16. Extension work in the existing water supply system.
17. Effective operation of rainwater harvesting system in each building.
18. Conversion of open spaces into parks on the campus.
19. Provision of 24×7 food courts and interaction spaces.

7. INSTITUTIONAL DEVELOPMENT PLAN (IDP)

The institutional development plan of VSSUT is broadly divided into three heads i.e. Academic, Administrative, and Infrastructure. It is a set of priorities for the university which connects its various departments and operational units to steer the university towards achieving its goals.

A. ACADEMIC

Short Term Goals (Next 100 Days)

1. Recruitment of Faculty against the vacant post.
2. Promotion of the Faculty members.
3. Inspiring Faculty to align towards state-of-the-art teaching delivery.
4. Adding new academic units in line with the approved IDP.

5. Skill development centres for students and industry personnel to develop specific skills for employability through Skill Development Centres and Centers of Excellence.
6. Augmentation of Central Research Facility.
7. Revisit and modification of Undergraduate, Postgraduate and PhD regulations.
8. Revisit and modify of examination manual.
9. Development of question banks providing model answers.
10. Availability of student mark sheets and certificates in a national repository.
11. International Centre for Student and Faculty Collaboration for exchange programs in teaching research in foreign universities.
12. Encouraging students and faculty for research, innovation and incubation.
13. Creation of an overall disabled-friendly system.
14. Facilitate internships for students in industries.

Medium Term Goals (2024-25)

1. Filling up of remaining faculty positions.
2. Promotion of the faculty members.
3. Recharge and inspire Faculty.
4. Upgrade curriculum in line with international requirements.
5. Create interdisciplinary centres of learning.
6. Encourage exchange programs.
7. Target enhanced research funding.
8. Improve innovation and incubation facilities.

Long-Term Goals (Next 5 years)

1. Establishing industry-sponsored Chairs/Research Centre.
2. Improving NIRF ranking within 50.
3. Enhance research funding through sponsored projects and industrial sponsorships.

B. ADMINISTRATIVE

Short Term Goals (Next 100 Days)

1. Deployment/Recruitment of non-teaching Staff against the vacant post.
2. Provision of recruitment policy for teaching and non-teaching staff following acts and statutes and AICTE guidelines.
3. Implementation of automation fully.
4. Implementation of e-office.
5. Revisit and modification of accounts manual as per Government norms.
6. Updating the university website.

7. Decentralization of administrative and financial powers.
8. Department wise budgeting.
9. Availability of best e-learning resources and digitizing rare books and documents.
10. Augmentation of placement cell and provision of counselling cell.
11. Provision of 24×7 food courts and interaction spaces.
12. Renovation of roads/ sewage Systems.

Medium Term Goals (2024-25)

1. Deployment/Recruitment of non-teaching staff against the vacant posts.
2. Work towards making the working paper less up to 70%.
3. Devolve financial powers to HODs and Deans.
4. Automation of Administrative and Financial offices.
5. Development of Museum (paintings, Manuscripts etc.).
6. To tap at least 10 new alumni every year for resource generation.
7. Improve Sponsored Project funding.
8. Green Campus program.

Long-Term Goals (Next 5 years)

1. Amendment of Statues under changed scenario
2. Paperless office for administrative and academic work.
3. Development of Museum (paintings, Manuscripts etc.).
4. 50 MOUs to be established by 2029.
5. Improving the perception of the university within and outside the country.

C. INFRASTRUCTURE

Short Term Goals (100 days)

1. Upgradation of networking and wireless facility in each laboratory, classroom, student residence and staff residence.
2. Renovation of existing Laboratories.
3. Development of a smart manufacturing laboratory for first-year students.
4. Development of Parking lots for green campus.
5. Solar light systems for sustainable energy conservation.
6. Renovation of Roads/ Sewage Systems.
7. Upgradation of Library Automation and Digitization.
8. Modernization and augmentation of CCTV surveillance system.
9. Initiation of construction of new infrastructure in line with approved IDP.
10. Sick room facility.

11. Continuation of a sustainable campus program.
12. Career and Counselling Centre/Cell.
13. Construction of Student Activity Centre (SAC).
14. Proper disposal of the Waste Management.
15. Rainwater harvesting and other water conservation measures.
16. Compound walls for the newly acquired land adjacent to the university.

Medium Term Goals (2024-25)

1. Creation of Technology Business Incubator (TBI).
2. Renovation and maintenance of academic and residential buildings.
3. Writing off obsolete equipment, furniture etc.
4. Enhance sustainable development programs.
5. Creation of residential facilities for faculty and non-faculty.
6. Improving the ambience of the university campus.
7. Increasing capacity and improving the ambience of the university guest house.

Long Term Goals (Next 5 Years)

1. Developing a Multidisciplinary Research Centre by 2029.
2. Provision of an alternative road to Burla for an integrated campus for the university.
3. Stabilizing automation system.
4. Paperless administrative activities.

8. NEW POLICIES / INNOVATIONS / TRANSFORMATIONAL INITIATIVES (2024-29)

University's strategic plan has been developed in the line of National Education Policy-2020 and it will cover the 05-year period from 2024 to 2029. To maintain the vision of the university, the following objectives have been designed:

S/N	Theme	Objectives
1.	Enhancing the Quality of Education	<ul style="list-style-type: none"> • To accelerate in the areas of teaching excellence and intellectual discovery. • To develop an academic master plan. • To enhance student placement, academic outreach and retention activities to enhance access, richness and student success. • To increase students' participation in higher education including skill development. • To provide enhanced resources for student academic and emotional support. • To examine the courses to determine the best strategy for improving course outcomes, achieving success and providing access to appropriate academic support.
2.	Holistic and Multidisciplinary Education	<ul style="list-style-type: none"> • To upgrade the existing system into a multidisciplinary university. • To facilitate academic autonomy among faculty so that they can be motivated to the best teaching & research publication. • To provide high-quality multi-disciplinary and cross-disciplinary teaching and research across fields. • To Promote skill development. • To promote cultural programming (arts, international, diversity, etc.) that encourages students, faculty and staff to actively engage with and understand different cultural viewpoints.

3.	Academic Bank of Credits	<ul style="list-style-type: none"> • To develop and implement the concepts of Academic Bank of Credits which would digitally store the academic credits earned from various recognized HEIs so that the degrees from an HEI can be awarded taking into account credits earned. • To develop flexible curricular structures as per NEP-2020 in all disciplines. • To facilitate exit options for students.
4.	Excellence in Research	<ul style="list-style-type: none"> • To encourage existing research avenues. • To promote and enable ambitious research of exceptional quality. • To motivate the faculty to bring the consultancy projects. • To enhance faculty-student collaborative research, scholarship and creative activities that are externally validated through peer review and supported by grants. • To create public and private partnerships through which faculty and students will engage in research, scholarship and innovations. • To develop specific handholding mechanisms and competitions for promoting innovation amongst student communities. • To cultivate international student and faculty exchange program.
5.	ICT integrated Campus and Smart Learning Resources	<ul style="list-style-type: none"> • To equip class-room with smart learning resources. • To develop hybrid and blended learning environment for teaching and learning. • To incorporate technology-driven teaching Methods and approaches to learning. • To make the academic and residential campuses WiFi enabled. • To develop e-content and e-technology park. • Set-up of ultra-smart Library and Laboratories.

6.	Brand identity	<ul style="list-style-type: none"> • To increase the number of students engaged with research, scholarship and creative activities within and beyond the class-room. • To assist students in becoming more independent, self-confident and effective learners who disseminate knowledge innovate and solve problems creatively. • To explore opportunities to improve its brand reputation and recognition. • To cultivate a fierce pride among students, faculty and staff through a shared understanding and experience of the identity and values.
7.	Funding & Economic Development	<ul style="list-style-type: none"> • To identify alternative funding streams, improve internal financial management tools to increase revenue and reduce costs. • To manage our financial resources to ensure the University's long-term sustainability. • To contribute in economic development and strengthen community partnerships.
8.	Community Participation & Social Outreach	<ul style="list-style-type: none"> • To develop partnerships with local and state agencies to harness various funds for economic and workforce development. • To establish a Community Outreach centre to improve health, vitality and economic sustainability. • To foster literacy and adult education programs; competency-based and online program options; interdisciplinary team-teaching; and degree and certificate options in a variety of disciplines for local communities. • Strengthening existing innovation, incubation and start-up programs.
9.	Alumni Engagement	<ul style="list-style-type: none"> • To develop an alumni network by re-engaging the VSSUT family. • To develop digital connectivity among Alumni. • To avail funding for restructuring various academic aspects.

10.	Social Media	<ul style="list-style-type: none"> • To facilitate communication about campus events, all relevant social media sites will be updated with information about campus events and programs. • To create visibility through social media and improve the perception of the university.
11.	Career Development	<ul style="list-style-type: none"> • Increasing employability of graduates. • Improving the vocational skills of students. • Enhancing students' personality. • Inculcating morality and ethics in students. • Shaping the future of a student.
12.	International Relations, Engagements and Partnerships	<ul style="list-style-type: none"> • Admitting foreign students for global recognition. • Attracting foreign research collaboration. • Facilitating exchange programs for students and faculty.
13.	Ranking and Accreditation	<ul style="list-style-type: none"> • Enhancing reputation and visibility. • Quality assurance and accountability. • Attracting good students and retention. • Recruiting the best faculty and retention. • Attracting research funding and collaborations.
14.	Teacher Education	<ul style="list-style-type: none"> • Imparting adequate knowledge of subjects. • Developing pedagogical skills. • Enabling teachers for proper use of instructional facilities. • Developing an attitude towards research and innovation. • Broadening domain knowledge.
15.	Ensure Administrative Efficiency	<ul style="list-style-type: none"> • Reduction of lead time using automation facility. • Faster file handling. • Transparent purchase process.

9. ACTION PLAN (2024-29)

The action plan for the timeline 2024-29 is drawn for the stated objectives and identifies the activities necessary to meet the objectives. The following legends show the actions of various activities.

Legends:	Target of Completion	Review	Revise/Upgradation
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1. Enhancing the Quality of Education						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Implementation of NEP2020		Target of Completion	Review	Review	Revise/Upgradation	Revise/Upgradation
Developing Students Enrolment Management Plan		Target of Completion	Review	Review	Revise/Upgradation	Revise/Upgradation
Monitoring Admissions Annually		Target of Completion	Target of Completion	Target of Completion	Review	Review
Establishment of Different Schools effectively		Review	Review	Revise/Upgradation	Revise/Upgradation	Review
Academic Audit Committee		Target of Completion	Target of Completion	Review	Review	Revise/Upgradation
Establishment of Human Resource Development Centre		Target of Completion	Target of Completion	Review	Review	Revise/Upgradation
Developing a mentoring system		Target of Completion	Review	Review	Revise/Upgradation	Review

2. Holistic and Multidisciplinary Education						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Program/Curriculum and multi-disciplinary nature		Target of Completion	Target of Completion	Target of Completion	Review	Revise/Upgradation
Comparison with Premium Institutions/ Internationalization of Education		Target of Completion	Target of Completion	Review	Revise/Upgradation	Revise/Upgradation
Developing enrollment Management Plan		Target of Completion	Target of Completion	Target of Completion	Review	Revise/Upgradation
Facilitating MOOCs in Collaboration with Government Apex Bodies		Target of Completion	Target of Completion	Target of Completion	Review	Review
Introducing STEM Approach		Review	Review	Target of Completion	Review	Revise/Upgradation
Converting traditional learning approach into multidisciplinary approach		Target of Completion	Target of Completion	Target of Completion	Review	Review
Developing Outcome Based Curriculum		Target of Completion	Review	Review	Revise/Upgradation	Revise/Upgradation
Equity and Inclusion in Higher Education		Target of Completion	Target of Completion	Target of Completion	Revise/Upgradation	Revise/Upgradation

3. Academic Bank of Credits						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Introduction of Flexible Programs						
Workshop on curriculum Redesign						
Revision of Existing Curriculum based on Credits across the disciplines						
Workshop on NEP						
Multiple Exit and Entry						
Establishing the Academic Bank of Credits						

4. Excellence in Research						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Identifying Immediate Focus Areas						
Developing Timeline for Focus Areas						
Ensuring Admission of High-Quality Students						
Mandatory PhD in all Departments						
Introducing Formal Training on Academic Writing						
Encouraging Each Faculty to Publish at least One Paper in SCI/SCOPUS indexed Journal						
Establishing Centres of Excellence						
Ensuring Each Faculty has at least one Research Project						
Exploring Industry Tie-Ups for Research Funding/Consultancy Projects						
Enriching the IPR Cell						

5. ICT Integrated Campus and Smart Learning Resources						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Transforming Traditional Classroom into Smart Learning Resource Centre						
Introducing Learning Management System						
Creating Web Development and Communications Cell		Introduce standardized web sites for each Departments				
Renovation and Modernization of Laboratories and Library		Provide on-line access to all essential research-aligned journals				
Increase/Upgrade Computing Facilities						

Creating ICT integrated Resource Centre for Teachers & Learners					
Strengthening Computing and Network facilities					
24 x 7 On-line Delivery of Course Material					
Introduction of Immersive Learning Lab					

6. Brand Identity						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Introducing 21 st Century Skill Development Program						
Expanding Undergraduate Research Award Program						
Introducing Student Exchange Program						
Participation in Youth Festival/ Participation						
Expanding Mentorship Program						
Creating Vibrant Learning Environment						
Establishment of Student Activity Centre						
Exploiting Alumni Network						
More usage of Social Media and Print Media						

7. Funding and Economic Development						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Identifying Alternative Funding Streams						
Improving Internal Financial Management Tools						
Developing effective Industry-Academia Relationship						
Motivating Faculty Members to apply for Minor/Major Projects						

8. Community Participation and Social Outreach						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Offer Competency-Based Education						
Develop Partnership with Local and State Agencies						
Strengthening Existing Innovation, Incubation and Startup Programmes.						

Establish Community Outreach Center					
Foster Literacy and Adult Education Programs					

9. Alumni Engagement						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Develop Alumni Network through Offline and Online mode						
Following up with Alumni Chapters in India and abroad better resource mobilization						
Start an Electronic Alumni Newsletter						
Enriching Alumni Website						

10. Social Media						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Develop Social Media Platform for Reflective Thinking						
Blogging /Podcasting						
Showcasing of Institutional vision						

11. Career Development						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Introducing an Encouragement Programs for Talented Students						
Introducing the Cooperative Programs to enhance out-of-classroom Experience						
Introducing Talent Management Program						
Introduce & Ensure Vocational Education						

12. International Relations, Engagement and Partnership						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Maintain and Enhance Strong Institutional links Across the Globe						
Expand International Mobility Opportunities						
Strengthen Existing MoU's / Explore New MoU's						

13. Ranking and Accreditation						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Participation in National & International Ranking						
Developing Centralized Data Repository and Reporting System						
Assesses the “GAP” between the University’s Current Status and the Vision.						
Scan University Environment with SWOT Analysis						

14. Teacher Education						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Integrated Teacher Education Program						
Converting to Multidisciplinary Mode						
Redefining teaching in line with research and innovation						
Enhance Online Teaching Practices						
Identifying HEIs for Teachers’ Training						

15. Ensure Administrative Efficiency						
Activity ↓	Year →	2024-25	2025-26	2026-27	2027-28	2028-29
Automation of University						
Availability of all Revised Manuals and Regulations in the Website						
Task force for publication of Annual Report						
Task force for Coordinating University Level Resource Generation & Allocation						
Streamline all Purchase Procedures						
