Silicon University Strategic Plan 2025-30

Silicon University

This Silicon University Strategic Plan (SUSP) is a framework of priority objectives and tasks for the Offices of the University, its departments and divisions, for the next five years.

The strategic plan will be complemented by a more detailed implementation schedule, keeping in mind the Mission, Vision and Quality Policy of the University.

Mission

To provide the best of technical skills, professional ethics and human values in enriching the disciplines of Science, Engineering and Technology for social development and Nation building.

Vision

To become a center of excellence in the fields of technical education & research and create responsible citizens.

Quality Policy

The Silicon University Quality Policy is based on the 5L principle of Lectures, Laboratory, Library, Learning & Leadership. This 5L Quality Policy makes the student a competent professional after the journey at Silicon.

There are five broad areas that ***SUSP*** will be applicable to, namely,

Education

Research & Consultancy

People

Resources

Engagement & Partnership

Selection Process: Quality technical education starts with the selection process and the University must recruit and support students of the best potential, irrespective of their background. Keeping this mind, the SUSP outlines three key priorities for the selection process:

1. Take initiatives to increase diversity

a. Establish targeted outreach programs aimed at under-represented populations, including partnerships with community organizations and educational institutions.

b. Increase the scholarship fund by 20% over the next five years, by developing partnerships with industry sponsors, alumni networks and private donors, to ensure that financial barriers do not impede the recruitment of talented students.

c. Set measurable diversity goals and assess recruitment trends to evaluate progress annually.

2. Develop a holistic admission criteria

a. Develop a timeline and resources for switching to a national-level unified admissions framework for both undergraduate and graduate students; till then the SU Entrance Test to be administered for both graduate and undergraduate students, followed by a personal interview.

b. Design multiple evaluation criteria, such as personal statement of purpose, recommendation letters, and extracurricular achievements, alongside academic credentials.

c. Introduce an interview process for top undergraduate candidates to assess soft skills and alignment with the University values.

3. Commit to graduate student growth

a. Establish a clear target to increase the proportion of graduate students by10% annually, focusing on Master's and Ph.D. programs.

b. Establish defined pathways for undergraduate students to transition smoothly into graduate programs, including combined Bachelor's and Master's degree options.

c. Offer competitive stipends, fellowships, and teaching assistantships to attract top graduate students, especially in high-demand research areas.

Curriculum Design

The curriculum at the University should be meticulously crafted to bridge the gap between academic learning and industry requirements. The key elements of the strategy to improve curriculum design and delivery include:

1. Alignment with industry requirements

a. Appoint at least two industry-experienced professionals per department as professors of practice and allocate specific roles for them which would curriculum design and faculty development and training.

b. Introduce capstone projects in each undergraduate program that would require students to collaborate with industry partners to solve real-world problems.

c. Revise syllabus to specify practical components, including lab sessions, workshops, internships, and projects, comprising at least 25% of the total coursework for each program.

2. Designing assessments for continuous learning

a. Develop and integrate diverse assessment methods that go beyond traditional exams and include project-based assessments, peer reviews, and portfolios to provide a more comprehensive evaluation of student learning.

b. Implement formative assessments throughout the semester to provide timely feedback, allowing students to understand their progress and identify areas for improvement.

c. Define clear, measurable learning outcomes for each course and use them to guide the development of course content and the assessment criteria.

3. Curriculum review and revision

a. Conduct annual reviews of course content, assessment structure, and learning outcomes by the Boards of Studies which would include professors of practice.

b. Schedule biannual curriculum feedback sessions, such as surveys and focus groups, to gather insights from current students, faculty, and recent graduates.

c. Clearly define key performance indicators (KPIs) for curriculum effectiveness and use data analytics tool to monitor these KPIs.

d. The 4 career choices - Job, Entrepreneurship, Advanced studies, and Advanced Research to be kept in mind.

The Teaching-Learning Experience

The teaching-learning experience at Silicon University should provide an equal opportunity for all students to achieve and demonstrate their full academic potential. This experience would prioritize:

1. Technology Integration

a. Utilization of cutting-edge educational technology platforms to enhance learning experiences by incorporating multimedia content and interactive tools that support diverse learning styles.

b. Develop and implement a robust learning management system (LMS) to organize and deliver learning resources and provide a forum for discussion.

c. Ensure that the learning spaces are equipped with the necessary tools to support any technology-enabled learning, which might include virtual labs and simulations or online courses.

2. Innovative Pedagogical Approaches

a. Encourage and train faculty to adopt active learning strategies such as flipped classrooms, problem-based learning, and collaborative projects.

b. Develop a Teaching Excellence Framework that recognizes and rewards teaching and learning innovations by faculty. The framework would include a Teaching Innovation Grant for faculty to develop and/or implement innovative teaching strategies and share their experiences with the broader academic community.

c. Encourage and facilitate interdisciplinary teaching and projects, allowing students to work across departments and gain broader perspectives on problem-solving.

d. Promote engagement of students in competitive events like hackathon.

b. Initiate University exchange programs based on competency and transferable skills.

3. Personalized Learning

a. Introduce one-on-one tutoring programs led by faculty or peers with the aim to provide personalized academic support to students.

Implement an AI-driven learning analytics system to identify students who may

Research & Consultancy

Silicon University

Research is the cornerstone of any University, and the creation of knowledge is what separates a University from a College. Silicon University aims to achieve research excellence by promoting partnerships and interdisciplinary collaborations to drive cultural, societal, political, and economic change. To reach this goal, the following tasks have been prioritized in the SUSP:

1. Establish a dedicated Research & Consultancy Cell to assist with grant applications, project management, and compliance, and other research-related logistics with the eventual goal of minimizing faculty's non-research workload.
2. Establish interdisciplinary research centers to promote the connections between disciplines and leverage the University's strengths in electrical, electronics, andcomputer sciences to undertake research in contemporary domains such as artificial intelligence, renewable energy, and Internet of Things (IoT).
3. Increase the amount and number of internal research grants for faculty to initiate research projects. Introduce research grants specifically for graduate students to develop and execute research proposals.
4. Establish annual research awards recognizing outstanding research achievements and innovations by both faculty and students.
5. Conduct grant-writing workshops for faculty and provide funding for conference attendance, workshops, and any other programs that would enhance research skills and promote collaboration with top academic institutions around the world.
6. Offer flexible course scheduling, reduced teaching load, and expedited career progression opportunities for faculty involved in significant research activities.
7. Encourage faculty to involve students in research projects by providing support for undergraduate and graduate research assistants.
8. Expand incubator programs to nurture student start-ups, offer entrepreneurial training and provide access to seed funding for promising ventures.
9. Increase the establishment of consultancy services to solve industry and community problems and forge strong collaborations with industry leaders and NGOs to increase the volume of funded research projects.
10. Define key performance indicators (KPIs) to evaluate research and consultancy outcomes and conduct annual reviews to assess these KPIs and make necessary adjustments.

People

People are the foundation of the University's success and the quality of our academic engagement, research output, professional development and providing adequate infrastructure all hinges critically on people. The faculty members, laboratory technicians, administrative personnel and support staff all play a critical role in shaping the University's progress.

We aspire to attract and retain top talent by providing a supportive environment where faculty, staff, students and administrators can thrive personally and professionally. By promoting diversity, equity, and inclusion, we strive to represent the richness of our community and foster a culture where every individual is heard, valued, and respected.

At Silicon University, our vision is to create an inclusive and people-centered workplace that drives the university's mission of academic excellence, innovation, and social impact.

Our commitment to excellence includes:

1. Talent Acquisition for Excellence and Alignment: To attract and hire exceptional talent whose skills, values, and aspirations align with our university's vision &mission, fostering a culture of excellence, innovation, and collaboration
2. Diversity and Inclusion: Building a vibrant community that recognizes diverse perspectives and equitable opportunities and foster a strong connection across departments, disciplines, through a sense of shared purpose and mutual respect.
3. Creating meaningful engagement: Fostering meaningful engagement by encouraging open communication, collaboration, and active participation to build a sense of connection and shared purpose.
4. Continuous Development and Growth: Enabling our team of faculty, staff members, and students to achieve ground breaking outcomes in research, education, and innovation while equipping them with cutting-edge skills, mentorship, and career pathways to adapt and grow in this fast-evolving technical world.
5. Well-being and Balance: Creating a supportive environment that values mental, physical, and emotional well-being while fostering continuous growth and positive change. We are dedicated to promoting work-life balance and ensuring that our community has the resources and support they need to thrive both personally and professionally.

In order for Silicon University to remain a leading institution for research and teaching we must continue to attract, recruit and support talented individuals and provide an inclusive, fair, nurturing and open environment that will allow all categories of employees to grow and flourish.

One of the prime initiatives will be to attract, recruit and retain the highest caliber faculty members, in order to ensure that the University achieves a cutting-edge profile in teaching and research.

We will ensure that our reward arrangements, including incentives for research and teaching are robust, transparent and competitive. We will actively promote health and wellbeing of both body and mind, so that our faculty and staff are able to function efficiently. Faculty members will be encouraged to contribute in the five areas of

teaching & learning, research, consultancy, capacity building & contribution to societal welfare.

The University will foster an inclusive culture that promotes equality of opportunity, values and diversity to maintain a working, learning and social environment in which the rights and dignity of all our faculty, staff and students are respected. Mental Health aspects will be looked at by a dedicated team catering to the needs of all faculty, staff and students.We will commit to support staff in personal and professional development so that they are able to maximize their contribution towards the University.

We will have faculty and staff development programs in various technical disciplines and human interaction and language skills, for a better functioning work environment. Technical and official communication expertise will be actively looked at and improved, across all categories of faculty and staff.

In particular, we will provide dedicated personal development support for early-career research and will ensure that those with management and leadership responsibilities are supported to be effective in those roles.

We will put in place creative and consistent measures to help our staff to balance competing demands on their time, both within their roles and between their working and home lives, including initiating childcare provision and flexible working policies, thus enabling academic staff to vary their duties over the course of their career.

Resources

Silicon University

The University will aim to benefit from the careful stewardship of resources ensuring that it remains both financially and environmentally sustainable. The strategic plan for resources is outlined in three categories - financial resources, infrastructure and equipment-related resources.

1. Financial Resources

a. Review the existing tuition structure to ensure accessibility while maintaining financial viability for the University.

b. Increase with government and private agencies for research funding and encourage faculty to secure individual research grants.

c. Increase the activity of the Industry Interface Cell to develop and facilitate partnerships with key industry players in core sectors.

d. Establish and expand an Entrepreneurship Cell with a target of funding at least five start-up ventures each year. The Entrepreneurship Cell will also organize networking events with alumni and external investors to foster funding and mentorship opportunities.

e. Conduct annual reviews of spending across all departments.

2. Infrastructure

a. Ensure that all learning spaces are equipped with either white boards or smart boards, phasing out traditional green/black boards with chalk and eraser entirely.

b. Install air-conditioning in all classrooms and lecture halls to ensure acomfortable learning environment.

c. Ensure reliable high-speed internet connection of at least 100 mbps throughout all academic and administrative buildings.

d. Increase the installation of solar panels across campus buildings with the goal of achieving 100% solar power reliance.

3. Equipment and Facilities

a. Develop a central high-speed computing facility to enhance computational research capabilities.

b. Conduct an annual review of licensed software like MATLAB, SIMULINK, and COMSOL and expand it based on the needs of the student and faculty.

c. Initiate targeted investment in equipment for molecular medicine and health services research.

d. Establish a regular schedule for maintenance and updating of all technological and research facilities to ensure ongoing operational excellence.

Engagement and Partnership

Silicon University

By enhancing the public engagement, knowledge exchange and innovation culture of the University, we aim to ensure that our research and education benefit a wide audience. To this end we will work in partnership with public, private, and commercial organizations, together with our alumni to create a regional innovation ecosystem.

1. **Develop a regional innovation ecosystem**

a. Identify and partner with leading research organizations and academic institutions to establish specialized centers of excellence.

b. Sign Memorandums of Understanding (MOUs) with clear objectives and outcomes with industrial partners, research organizations, academic institutions, and start-ups to build a robust ecosystem for learning and research.

c. Actively seek Corporate Social Responsibility (CSR) funding from relevant companies to develop projects focused on addressing key issues identified in the UN Sustainable Development Goals (SDG).

d. Increase the scale and scope of innovation in medical, health, and allied sciences and invest in developing hospitals and associated research infrastructure within the state.

2. **Enhance public engagement and digital outreach**

a. Create pathways for public engagement with university research and teaching through exhibitions and high school programs.

b. Establish a University Press to publish globally in markets intersecting research, education, and technology.

c. Increases investment in digital platforms to engage wider global audiences and communities.

3. **Increase international engagement and global partnerships**

a. Initiate and enhance partnerships with reputable foreign universities to raise the profile of university research and teaching on the global stage

b. Improve and expand overseas study and research opportunities for students and promote the role of faculty and students in a globally interconnected world.

4. Develop solutions on targeted societal problems, making that as a flagship initiative of the University.