



Tribhuvan University
 Institute of Engineering
 Thapathali Campus



**Strategic Plan
 (2023-2028)**

January 2023

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1. Background

Thapathali Campus, one of the constituent campuses of the prestigious Institute of Engineering under Tribhuvan University, is a well-established and highly regarded educational institution located in the heart of Kathmandu, Nepal. Founded on 13 March 1967 (Falgun 29, 2023), in the presence of the Late King Mahendra, and the Late Dr. Heinrich Lubke, President of the Federal Republic of Germany as the Technical Training Institute (TTI), the campus initially aimed to produce middle-level manpower in the field of mechanical and automobile engineering. However, as times have changed, the campus has evolved to offer a wide range of bachelor's and master's degree programs in various branches of engineering, including industrial engineering; civil engineering; electronics, communication, and information engineering; mechanical engineering; architecture; computer engineering; automobile engineering; earthquake engineering; mechanical design and manufacturing; and informatics and intelligent systems engineering.

In pursuit of excellence, Thapathali Campus continuously strives to upgrade its programs and adapt to the latest technological advancements. The campus is dedicated to delivering high-quality education and producing well-rounded engineers who can make significant contributions to society. The faculty, staff, and students work closely together to achieve this goal.

Thapathali Campus prides itself on its accomplishments and looks forward to continued growth and success in the future. The campus is committed to research and development and encourages its students and faculties to engage in innovative and groundbreaking work. Thapathali Campus recognizes the importance of preparing its students for the challenges of the future and seeks to provide them with a comprehensive education that will prepare them for success in their careers and life.

2. Vision, Mission, and Core Values

The vision, mission, and core values of the Thapathali Campus are stated as follows.

2.1 Vision Statement

- To be a leading engineering campus globally recognized for academic excellence, research, innovation, and societal impact.

2.2 Mission Statement

- To provide a transformative educational experience, cultivate innovation and research, and produce highly skilled engineers capable of solving real-world problems and contributing to the advancement of society.

2.3 Core Values

- Excellence: Striving for the highest standards in teaching, research, and student development.
- Innovation: Encouraging creativity, entrepreneurship, and interdisciplinary collaboration.
- Integrity: Upholding ethical behavior, honesty, and accountability.
- Inclusivity: Fostering a diverse and inclusive community that respects the values of all individuals.
- Sustainability: Promoting environmentally conscious practices and solutions.

3. Present Status

3.1 Organizational Structure

The Institute of Engineering (IOE) was formed under Tribhuvan University based on the decentralization principle of the university. Thapathali campus is one of the constituent campuses of the Institute of Engineering (IOE). The organizational structure of the Thapathali campus is more similar to a line organization with different functional units to support the executive head. Authority flows from top to bottom whereas responsibility flows from bottom to top. The organizational structure shown in **Figure 1** clearly defines the flow of authority and responsibility as well as the relationship between different departments, units, and sections of the Thapathali Campus.

The Campus Chief is the executive head of the campus and is responsible to the Dean of the Institute of Engineering. There is a provision for three assistant campus chiefs to assist the campus chief. These assistant campus chiefs are given the responsibility of academic, administrative, planning, and resource management. There are six academic departments:

Department of Automobile and Mechanical Engineering, Department of Civil Engineering, Department of Architecture, Department of Electronics and Computer Engineering, Department of Industrial Engineering, and Department of Applied Sciences; four units: Education and Management Information System (EMIS) unit, Research and Development (R & D) unit, Consultancy Services, Material Testing; and nine administrative sections: Campus Administration, Finance Administration section, Planning section, Academic Administration and Exam section, Library section, General Administration section, Personnel Administration section, Facility section, and Stores section.

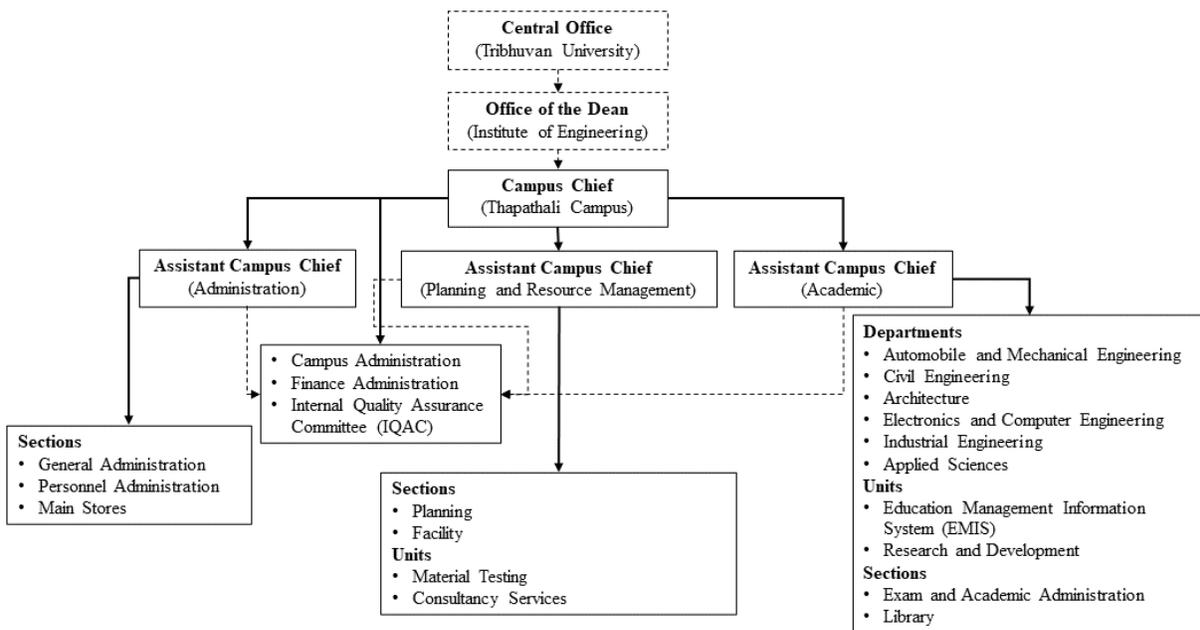


Figure 1: Organizational structure of Thapathali Campus

3.2 Academic Programs

Thapathali Campus offers a diverse range of bachelor's degree programs in various branches of engineering, including industrial engineering; civil engineering; electronics, communication, and information engineering; mechanical engineering; architecture engineering; computer engineering; automobile engineering and master's degree programs in earthquake engineering; mechanical design and manufacturing; and informatics and intelligent systems engineering. The Institute of Engineering publishes the academic calendar for both bachelor's and master's programs and is followed by all constituent campuses and affiliated campuses.

To ensure high academic standards, the campus follows the admission process prescribed by the Institute of Engineering (IOE). Candidates must pass the IOE entrance examination, and admission is granted solely based on merit. For bachelor-level programs, candidates appearing in the entrance examination must have secured a minimum "C" grade in all subjects in Grades 11 and 12, in case of the Letter Grading System, and students who have passed 10+2 or equivalent examinations with a minimum of 50% marks in aggregate and 50% marks in Physics, Chemistry, and Mathematics (PCM). For prospective students applying to the bachelor's program in architecture, the campus conducts a separate aptitude test, and admission is granted based on the evaluation of both the entrance examination and aptitude test results. Similarly, IOE publishes the basic eligibility criteria for different master-level programs. **Table 3** lists the intake capacity of students under different academic programs in the academic year 2022/23. The graduates of Thapathali Campus have been serving in different governmental and non-organizations as officers, engineers, consultants, contractors, and University professors and pursuing higher education in different national and international universities.

Table 3: Intake capacity in different academic programs offered in Thapathali Campus

| SN | Academic programs | Regular | Full fee |
|--------------------------------------|---|------------|------------|
| B.E. programs | | | |
| 1 | Bachelor in industrial engineering | 12 | 36 |
| 2 | Bachelor in civil engineering | 36 | 108 |
| 3 | Bachelor in mechanical engineering | 12 | 36 |
| 4 | Bachelor in electronics, communication, and information engineering | 12 | 36 |
| 5 | Bachelor in architecture | 12 | 36 |
| 6 | Bachelor in automobile engineering | 12 | 36 |
| 7 | Bachelor in computer engineering | 12 | 36 |
| Total | | 108 | 324 |
| M.Sc. in Engineering programs | | | |
| 1 | M.Sc. in earthquake engineering | 5 | 15 |
| 2 | M.Sc. in mechanical design and manufacturing | 5 | 15 |
| 3 | M.Sc. in informatics and intelligent systems engineering | 5 | 15 |
| Total | | 15 | 45 |

3.3 Human Resources

As per Tribhuvan University's regulation established in 2050 B.S., Thapathali Campus is allocated a total of 108 positions for teachers, out of which only 68 are currently occupied. The campus has filled four of these positions to be supported by its internal revenue sources. Similarly, the university has allocated 64 staff positions to Thapathali Campus, out of which only 37 are

currently occupied and five staff members have been hired to be supported by its internal revenue sources. To meet the remaining requirements, the campus employs well-qualified part-time staff and teachers. However, Thapathali Campus plans to fill all of the allocated positions by permanent faculties and staff in the coming years and optimize the administrative and educational processes of the campus. Also, the existing positions need to be revised to accommodate current academic programs and prospects.

3.4 Physical Facilities

Thapathali Campus, situated in the heart of the Kathmandu Valley near Maitighar Mandala, encompasses a land area of 32 Ropanis. **Figure 2** provides an overview of the current master plan, illustrating all the physical facilities within the campus. The largest section, Block A, is dedicated to housing various laboratories, including the electric machine laboratory, thermal science laboratory, fluid mechanics and machines laboratory, as well as automobile workshops and mechanical workshops. Block B serves as the academic building for the Department of Civil Engineering, the Department of Industrial Engineering, and the Department of Applied Sciences. It comprises classrooms, conference and seminar halls, drawing rooms, teacher and staff rooms, department offices, and essential laboratories such as Survey, Chemistry, Physics, and computer workstations. Additionally, it houses the office of the Free Students' Union. Block C serves as the administrative building, accommodating the Office of the Campus Chief, Assistant Campus Chiefs, reception area, Campus Administration section, Finance Administration section, Personnel Administration section, General Administration section, Academic Administration and Exam section, Main Stores section, and the office for the Staff Union of Thapathali Campus.

Block D has recently been repurposed as an academic building, providing classrooms and dedicated space for final-year projects. Block E serves as the academic building for the Department of Automobile and Mechanical Engineering and the Department of Electronics and Computer Engineering. It includes classrooms, conference and seminar halls, teacher and staff rooms, computer workstations, department offices, as well as specialized laboratories such as the Energy Systems Research Laboratory, Intelligent Systems, and Data Analytics Research Laboratory, laboratories for the Department of Electronics and Computer Engineering, and advanced laboratories for mechanical engineering, structure, and water supply. Block F is a smaller building housing two classrooms. The Architecture Block accommodates classrooms, department offices,

design studio laboratories, a primary health service room, and the office of the Teacher's Union. In addition to these facilities, the campus premises also include an Auditorium Hall, Saraswati temple, Garage, Canteen, Library, Research Block, Material Testing Laboratory, Robotics and Automation Center, Basketball court, Table tennis court, Vehicle parking, and recreational parks. However, the current space available at Thapathali Campus is insufficient to meet the growing number of students and academic programs.

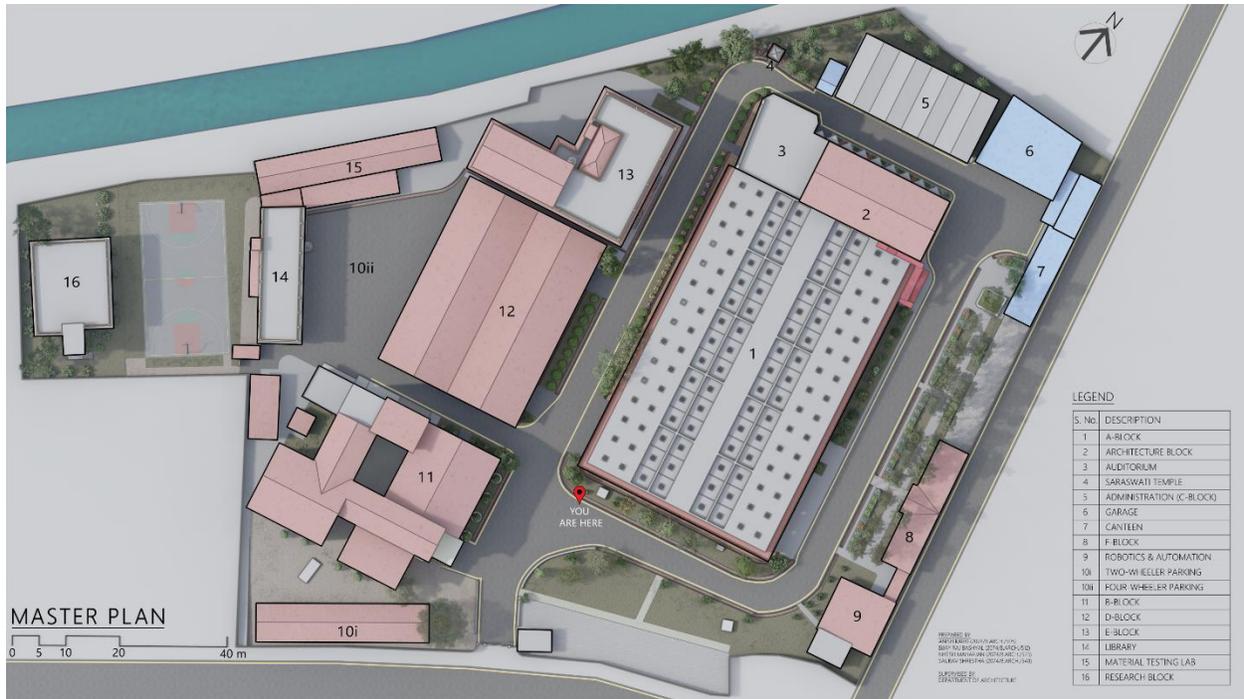


Figure 2: The existing master plan of the Thapathali Campus

3.5 Financial Status

The primary revenue stream of Thapathali Campus predominantly comprises the salaries allocated to permanent faculty and staff, disbursed by the central office of Tribhuvan University, along with internal income generated through tuition fees paid by full-fee students. Furthermore, the campus's financial requirements are met through grants received from the University Grants Commission, research grants from various funding agencies, internal revenue derived from consultancy services, material testing, and external training programs. Nevertheless, the campus administration faces considerable challenges in terms of financial management and maintaining equilibrium between revenue and expenditure, owing to market inflation, a relatively stable

income from full-fee students over the past two decades, and declining subsidies from both the central office and the government of Nepal.

3.6 Research and Publications

The Research and Development Unit and Research Management Cell (RMC) are responsible for regulating the research activities of the campus. The final year projects or theses of undergraduate students across different academic programs at Thapathali Campus often involve the resolution of real-world problems. The Department Project Committee carefully selects projects and theses with significant impact, which are then presented by students at the Thapathali Graduate Conference. Subsequently, these works are published in peer-reviewed journals. Notably, the campus acknowledges and rewards the selected projects and published papers. At the master's level, students are required to present their thesis work at conferences such as the IOE Graduate Conference and publish research papers based on their findings. This approach has fostered a research-oriented culture and upheld the quality of project and research work at the campus. The Energy Systems Research laboratory, in particular, focuses on addressing national and global energy challenges and has successfully generated numerous research papers in collaboration with the University of Tokyo, Japan. Furthermore, the faculty members actively participate in various research projects and secure research grants from the University Grants Commission.

Thapathali Campus engages in the publication of a renowned NepJol-indexed journal known as the Journal of Innovations in Engineering Education. This peer-reviewed journal serves as a platform for disseminating research contributions across various engineering disciplines and applied sciences. The fifth volume of this journal was published in 2022, further consolidating its standing as an esteemed scholarly publication. Additionally, Thapathali Campus produces an annual report, encompassing a comprehensive overview of the academic, administrative, and research endeavors undertaken within the campus. The official inauguration of this report occurs on the annual day of the campus, specifically on the 29th of Falgun. Furthermore, the campus periodically releases brochures and leaflets tailored to meet specific informational requirements as deemed necessary.

4. SWOT Analysis

A thorough assessment of strengths, weaknesses, opportunities, and threats of the Thapathali Campus was conducted and is presented below.

4.1 Strengths

- Government-funded engineering campus located at the heart of the Kathmandu Valley.
- Pioneer and reputed institute with international linkage and recognition.
- Highly competent and enthusiastic students.
- Experienced and dedicated faculty members.
- Diversity among faculty members and students.
- A large number of alumni work in different national and international organizations.
- Reputation for producing industry-ready graduates.
- Well-established laboratories and workshops.
- Affordable tuition fees for students and enough scholarship schemes.

4.2 Weaknesses

- Limited land space for horizontal expansion of physical infrastructure.
- Limited funding for research and infrastructure development.
- Inadequate industry exposure for students.
- Lack of state-of-art technologies and infrastructure.
- Limited community engagement and outreach programs.
- Insufficient research laboratories and facilities.
- Limited industry partnerships and government collaborations.
- Inadequate number of full-time faculties and positions of readers and professors.

4.3 Opportunities

- Increasing job opportunities for competent engineers of various disciplines.
- Growing interest of the government in engineering education and research-based products.
- Collaborative research opportunities with industry and other institutions.

- Central hub for automobile, industrial, and earthquake engineering-related studies.
- Increasing importance of interdisciplinary approaches in engineering.
- Potential for expanding online and distance learning programs.

4.4 Threats

- Budget cuts and funding uncertainties.
- Rapid technological advancements requiring continuous curriculum updates.
- Difficulty in attracting and retaining talented faculty members.
- Intense competition from other engineering campuses.
- Changing regulations and accreditation requirements.

5. Goals and Objectives

The goals and objectives of Thapathali Campus are broadly classified into four categories: Academic Excellence; Research and Innovation; Diversity and Inclusion; and Sustainability and Social Impact; which are briefly presented below.

5.1 Academic Excellence

- Enhance the quality of teaching and learning through faculty development programs, innovative pedagogies, and modern teaching methodologies.
- Promote research-based learning and encourage student involvement in research projects.
- Strengthen industry partnerships to provide real-world exposure and internships to students.
- Establish exchange programs and collaborations with international universities to enhance global perspectives.

5.2 Research and Innovation

- Increase funding for research projects and infrastructure development through grants, industry partnerships, and alumni donations.

- Foster interdisciplinary research and collaboration by establishing research laboratories and organizing regular seminars and conferences.
- Encourage faculty and students to file patents and commercialize their innovations.
- Support entrepreneurship initiatives and provide resources for students to start their ventures.

5.3 Diversity and Inclusion

- Develop initiatives to attract and retain a diverse student body and faculty through targeted recruitment efforts and scholarships.
- Create a supportive and inclusive campus environment through cultural sensitivity training and awareness programs.
- Establish mentorship and support programs for underrepresented groups in engineering.
- Incorporate diversity and inclusion principles into the curriculum and teaching methodologies.

5.4 Sustainability and Social Impact

- Integrate sustainability principles into engineering programs and research projects.
- Develop partnerships with industries working on sustainable technologies and clean energy solutions.
- Engage in community outreach programs to address local engineering challenges and contribute to social development.
- Establish a platform to showcase and celebrate engineering projects with positive societal impact.

6. Action Plan and Implementation Strategies

The action plan formulated to execute the proposed five-year strategic plan is attached in the ANNEX section. The execution of formulated goals, objectives, and action plans will be assured through the adoption of the following implementation strategies.

- Develop a comprehensive strategic implementation action plan with clear timelines, responsibilities, and key performance indicators (KPIs).

- Allocate resources strategically, prioritizing areas of critical need and potential impact.
- Establish interdisciplinary task forces and committees to oversee and drive specific initiatives.
- Foster a culture of continuous improvement and learning through regular evaluations and feedback mechanisms.
- Develop partnerships and seek funding opportunities with industry, government agencies, and philanthropic organizations.
- Leverage technology and data analytics to enhance decision-making processes and monitor progress.

7. Monitoring and Evaluation

The following procedures will be adopted to monitor and continuously assess the formulated strategies and action plans.

- Establish and strengthen the role and responsibilities of the Internal Quality Assurance Committee (IQAC) for monitoring and evaluating the progress of the strategic plan.
- Regularly review key performance indicators and performance metrics.

Annex: Action Plan

| S.N. | Objectives | Planned Activities | Time frame | Indicators/Outcomes |
|---|---|---|-------------|---|
| 1. Quality Assurance | | | | |
| (i) | Secure Quality Assurance and Accreditation (QAA) certificate. | <ul style="list-style-type: none"> • Reform IQAC, SAT, RMC, and other quality-assuring committees and cells. • Conduct meetings and visit programs with different stakeholders, experts, and institutions. • Submit updated Self Study Report (SSR) and Response report complying with the quality assuring indicators/parameters/requirements. | ~2023 | <ul style="list-style-type: none"> • Quality Assurance and Accreditation (QAA) from the University Grants Commissions. |
| 2. Financial Resource Management | | | | |
| (i) | Increase external sources of income for the development budget. | <ul style="list-style-type: none"> • Visit the donor agencies like German Embassy, KOICA, JICA, etc with the proposal of establishing research centers, and academic and administrative buildings [by 2024]. • Actively involve in the grants/funding call from the UGC like NEHEP etc. [annually]. • Visit the officials and offices of the government of Nepal with the proposal of expanding human resources and physical infrastructure of the campus [annually]. | 2023- 2028 | <ul style="list-style-type: none"> • Improved infrastructure and facilities. |
| (i) | Increase internal sources of income and financial stability. | <ul style="list-style-type: none"> • Revise the fee structure of graduate and undergraduate courses (as per IOE regulations) considering the market inflation and program sustainability [by 2023]. • Promote and advertise the consultancy and material testing services of the campus [annually]. • Increase training programs related to automobile engineering for outsiders [annually]. • Increase grant application and research collaboration with governmental and non-governmental organizations [annually]. | 2023- 2028 | <ul style="list-style-type: none"> • Financial stability of the campus. |
| 3. Infrastructure Development | | | | |
| (i) | Relocate Thapathali Campus at Balkhu, Kirtipur. | <ul style="list-style-type: none"> • Finalize the master plan and detailed project report with close coordination with the hired consultant [by 2023]. • Seek donor agencies/investors in close coordination with the Government of Nepal [by 2023]. | 2023 - 2028 | <ul style="list-style-type: none"> • Constructed infrastructures and academic sessions at the new location. |

| S.N. | Objectives | Planned Activities | Time frame | Indicators/Outcomes |
|-------|---|---|-------------|--|
| | | <ul style="list-style-type: none"> • Execute the construction works as per the developed master plan [by 2027]. • Start academic programs in the new locations [by 2028]. | | |
| (ii) | Establish Earthquake and Automobile Research Center. | <ul style="list-style-type: none"> • Seek funding from the Extended Performance Based Grants from NEHEP, UGC [by 2023]. • Renovate and maintenance of the old boy's hostel and name it "Research Block" [by 2023]. • Refurnish the rooms as laboratories for advanced modeling and simulation [by 2024]. | 2023 - 2024 | <ul style="list-style-type: none"> • Research block with hard-working researchers and students. |
| (iii) | Establish Survey Camp building at Balkhu, Kirtipur. | <ul style="list-style-type: none"> • Seek funding from the Extended Performance Based Grants from NEHEP, UGC [by 2023]. • Construct the building as per the prepared and approved drawings and design [by 2024]. | 2023 - 2024 | <ul style="list-style-type: none"> • Well-furnished Survey Camp building. |
| (iv) | Establish and upgrade the specialized laboratories. | <ul style="list-style-type: none"> • Seek funding from the Extended Performance Based Grants from NEHEP, UGC [by 2023]. • Procure high-end computing infrastructure [by 2023]. • Construct and upgrade research laboratories like Intelligent Systems and Data Analytics Laboratory, and Energy Systems Research Laboratory [by 2024]. | 2023 - 2024 | <ul style="list-style-type: none"> • Research laboratories with hard-working researchers with impactful research outputs. |
| (v) | Establish and upgrade the basic and technical laboratories. | <ul style="list-style-type: none"> • Seek funding from the Extended Performance Based Grants from NEHEP, UGC [annually]. • Upgrade the design studio laboratories of the architecture department [by 2024]. • Upgrade the basic laboratories of applied sciences laboratories [by 2024]. • Develop lab manuals and install lab description flyers in each laboratory [by 2024]. • Procure state-of-art technologies in technical laboratories for civil, mechanical, automobile, industrial, electronics, and computer engineering [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> • State-of-the-art technologies in the laboratories and upgraded laboratories. |
| (vi) | Establish and upgrade the parking and recreational zone. | <ul style="list-style-type: none"> • Upgrade the two-wheelers and four-wheelers parking space for students, teachers, and staff [by 2023]. • Construct and manage recreational and open spaces for students [by 2024]. • Construct Engineering Park inside the campus premises to display models and inventions [by 2024]. | 2023 - 2024 | <ul style="list-style-type: none"> • Well-managed parking spaces and recreational parks. |

| S.N. | Objectives | Planned Activities | Time frame | Indicators/Outcomes |
|-------------------------------|---|--|-------------|---|
| (vii) | Renovate and refurbish the academic and administrative buildings. | <ul style="list-style-type: none"> • Paint the outer and inner walls of all academic and administrative buildings [by 2025]. • Repair and upgrade the furniture inside the buildings [by 2025]. | 2023 - 2025 | <ul style="list-style-type: none"> • Increased aesthetic and beauty of the campus. |
| (viii) | Construct the boundary walls and main gate. | <ul style="list-style-type: none"> • Construct and renovate the boundary walls damaged by Earthquake-2015 [by 2025]. • Construct and renovate the main entry gate of the Thapathali Campus [by 2025]. | 2024 - 2025 | <ul style="list-style-type: none"> • Increased aesthetic, protection, safety, and convenience. |
| (ix) | Establish and upgrade the auditorium and conference halls. | <ul style="list-style-type: none"> • Refurbish the auditorium hall of the campus [by 2024]. • Installation of smart systems in conference/seminar halls of all departments [by 2025]. | 2024 - 2025 | <ul style="list-style-type: none"> • Well-equipped auditorium and conference halls. |
| (x) | Repair and maintenance of infrastructures. | <ul style="list-style-type: none"> • Regular and annual repair and maintenance of infrastructures like canteen, rest rooms, water supply, internet services, sports facilities, classrooms, teacher and staff rooms, and department rooms [annually]. • Perform inventory audit and scrap management [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> • Well-functioning basic facilities. |
| 4. Faculty Development | | | | |
| (i) | Conduct workshops, seminars, and training. | <ul style="list-style-type: none"> • Organize workshops on the proposal and academic paper writing, research grant claims, instructional material preparation, office record keeping, etc. [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> • Trained teachers and staff. |
| | | <ul style="list-style-type: none"> • Organize training on ICT familiarization, data analysis, accounting software, EMIS software, and course dissemination [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> • Updated teachers and staff. |
| (ii) | Conduct the Faculty Exchange program. | <ul style="list-style-type: none"> • Organize guest lectures and special classes [annually]. • Visit different research centers, campuses, and national and international universities [annually]. • Conduct interdisciplinary research activities [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> • Capacity building and exposure of faculties. |
| (iii) | Increase research-related activities. | <ul style="list-style-type: none"> • Regulate research-related activities through Research Management Cell (RMC) [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> • Research papers and mini research report. • Solution of real-world engineering problems. |

| S.N. | Objectives | Planned Activities | Time frame | Indicators/Outcomes |
|-------------------------------|--|--|-------------|---|
| (iv) | Enhance the academic development of the faculties. | <ul style="list-style-type: none"> Financial support and incentives to faculties pursuing MPhil and Ph.D. [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> Qualified faculties with research exposure. |
| 5. Academic Excellency | | | | |
| (i) | Revise the course syllabus of undergraduate and graduate courses. | <ul style="list-style-type: none"> Organize meetings and discussions to adopt state-of-the-art knowledge, cutting-edge technology, and skills within the course syllabus [by 2024]. Organize workshops to adopt new research areas and trends within the master-level course syllabus [by 2024]. | 2023 - 2024 | <ul style="list-style-type: none"> New course syllabus for both undergraduate and graduate students. |
| (ii) | Conduct research-based teaching-learning activities. | <ul style="list-style-type: none"> Identify real-world engineering problems and ask students to solve those problems through the final year project/thesis [annually]. Organize field visits, discussions, data collection, presentations, and report writing [annually]. Organize the “Thapathali Graduate Conference” for undergraduate students [annually]. Support master-level students participating in national and international conferences [annually]. Publish research papers based on the final year project/thesis and master’s research [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> Project report and research work submitted by students. Research papers and conferences. |
| (iii) | Revise and restructure the present post (darbandi) status of teachers and staff. | <ul style="list-style-type: none"> Organize meetings with related stakeholders to call attention to revising the current darbandi status of the campus [by 2025]. Prepare and execute the darbandi number and seats that addresses the current academic programs and prospects [by 2025]. | 2023 - 2025 | <ul style="list-style-type: none"> Academic audit report and tracer study report. |
| (iv) | Perform academic audits and active participation of alumni/graduates. | <ul style="list-style-type: none"> Annual tracing of graduates and taking written feedback to further improve the academic environment [annually]. Annual academic audit to properly assess the actual status of the campus [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> Academic audit report and tracer study report. |
| (v) | Use smart technologies in teaching-learning activities. | <ul style="list-style-type: none"> Equip classrooms with multimedia and projectors [by 2025]. Promote the use of Information and Communication Technologies in the teaching-learning process [by 2025]. | 2023 - 2025 | <ul style="list-style-type: none"> Well-equipped classrooms and halls with ease in teaching-learning. |

| S.N. | Objectives | Planned Activities | Time frame | Indicators/Outcomes |
|--|--|--|-------------|--|
| (vi) | Encourage the use of the library and convert it to an e-library. | <ul style="list-style-type: none"> • Increase the working hour and accessibility of libraries [by 2025]. • Upgrade the library to an e-library [by 2025]. | 2023 - 2025 | <ul style="list-style-type: none"> • Increased library participation and accessibility. |
| (vii) | Motivate deserving faculties, staff, and students. | <ul style="list-style-type: none"> • Prepare job evaluation and appraisal mechanisms of faculties and staff [annually]. • Identify the high-performing students in semester exams [annually]. • Reward faculties, staff, and students on the annual day of the campus [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> • Rewarded faculties, staff, and students on an annual day. |
| (viii) | Engage in community outreach programs | <ul style="list-style-type: none"> • Include community outreach programs in the course syllabus [by 2024]. • Site visits, host interactions, and meetings with communities [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> • Address local engineering challenges and contribute to social development. |
| 6. Program Extension | | | | |
| (i) | Introduce M.Sc. (Research) and PhD programs. | <ul style="list-style-type: none"> • Perform a feasibility study in introducing M.Sc. (Research) and Ph.D. programs [by 2024]. • Start M.Sc. (Research) and Ph.D. programs [by 2025]. | 2023 - 2025 | <ul style="list-style-type: none"> • Students' enrollment in M.Sc. (Research) and PhD program |
| (ii) | Start and execute Student Exchange programs. | <ul style="list-style-type: none"> • Collaborate with international universities and exchange knowledge sharing through the exchange of master-level students [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> • Student exchange program in international universities. |
| 7. Institutional Capacity Development | | | | |
| (i) | Develop Thapathali Campus Account System. | <ul style="list-style-type: none"> • Perform a feasibility study in developing the Thapathali Campus Account system for using various ICTs systems by teachers, staff, and students [by 2024]. • Start and execute Thapathali Campus Account [by 2026]. | 2023-2026 | <ul style="list-style-type: none"> • A central portal system that manages various ICTs systems. |
| (ii) | Develop Learning Management System. | <ul style="list-style-type: none"> • Perform a feasibility study in developing a Learning Management system to support coursework [by 2025]. • Start and execute Learning Management System [by 2027]. | 2023-2027 | <ul style="list-style-type: none"> • Learning Management System that supports coursework. |
| (iii) | Strengthen and provide autonomy to the Department | <ul style="list-style-type: none"> • Add technical staff to the departments [by 2024]. • Provide financial autonomy to the departments [by 2025]. | ~2025 | <ul style="list-style-type: none"> • Improved service delivery. |

| S.N. | Objectives | Planned Activities | Time frame | Indicators/Outcomes |
|------------------------------------|---|--|-------------|--|
| (iv) | Establish Repair and Maintenance cell. | <ul style="list-style-type: none"> Service delivery through unified cell working on the daily repair and maintenance activities of the campus [by 2024]. | ~2024 | <ul style="list-style-type: none"> Improved service delivery. |
| (v) | Strengthen campus, finance, and academic administration. | <ul style="list-style-type: none"> Equip the EMIS unit with the latest technologies, and recruit and train the staff [by 2025]. | 2023-2025 | <ul style="list-style-type: none"> EMIS and digital networks within the different section |
| 8. Research and Publication | | | | |
| (i) | Publish research journals, annual reports, and other materials. | <ul style="list-style-type: none"> Publish brochure, peer-reviewed journal, and annual report of campus [annually]. Publication of research and teaching guidelines [annually]. Prepare lesson plans and instruction manuals for each laboratory [by 2025]. | 2023 - 2028 | <ul style="list-style-type: none"> Brochures, journals, research reports, annual reports, research, and teaching guidelines |
| (ii) | Promote faculty involvement in research activities. | <ul style="list-style-type: none"> Establish internal resource grants for faculties. | ~2024 | <ul style="list-style-type: none"> Increased publication and research papers. |
| (iii) | Promote collaborative research | <ul style="list-style-type: none"> MoU and collaboration with international research centers, universities, and researchers [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> Increased international collaboration and publication. |
| 9. Student Welfare | | | | |
| (iii) | Provide primary health service. | <ul style="list-style-type: none"> Establish of health service room within the campus. | 2023 | <ul style="list-style-type: none"> Students get primary health services |
| (ii) | Conduct extra-curricular activities. | <ul style="list-style-type: none"> Organize sports week, cultural programs, engineering exhibitions, academic competitions, etc. [annually]. | 2023- 2028 | <ul style="list-style-type: none"> Awarded winners and motivated students. |
| (iii) | Provide scholarships and stipends to the students. | <ul style="list-style-type: none"> Select the needy and competent students and provide scholarships and stipends [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> Record of the students receiving scholarships and stipends. |
| (iv) | Strengthen the Robotics and Automation Center. | <ul style="list-style-type: none"> Assign a faculty member to coordinate with Robotics and Automation Center [by 2023]. Develop an annual plan and allocate a budget [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> International exposure of students and products |

| S.N. | Objectives | Planned Activities | Time frame | Indicators/Outcomes |
|---------------------------------|--|--|-------------|---|
| (v) | Strengthen the departmental student societies of the campus. | <ul style="list-style-type: none"> Support student societies like CESS, SOIES, AMESIN, ASIS, ECAST, etc. in organizing workshops, seminars, guest lectures, training, and other extra-curricular activities [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> Improved knowledge and industry exposure of students. |
| (vi) | Provide guidance and counseling to the students. | <ul style="list-style-type: none"> Conduct problem-solving workshops, career counselling, job fair, in-campus job placement, and formative evaluation [annually]. | 2023 - 2028 | <ul style="list-style-type: none"> Improved knowledge and employability of students. |
| 10. Partnership Strategy | | | | |
| (i) | Establish partnerships with local, provincial, and central governments | <ul style="list-style-type: none"> Coordination with local, provincial, and central governments for infrastructure developments, research activities, scholarship funds, and other awareness programs [annually]. | 2023- 2028 | <ul style="list-style-type: none"> Benefits related to infrastructure, scholarships, and public awareness. |
| (ii) | Establish partnerships with other universities | <ul style="list-style-type: none"> Exchange of faculties for research, training, seminar, project, and teaching learning activities [annually]. | 2023- 2028 | <ul style="list-style-type: none"> Partnership established |