



YEARLY STATUS REPORT - 2023-2024

Part A

Data of the Institution

Part A	
Data of the Institution	
1.Name of the Institution	Netaji Subhash Engineering College
• Name of the Head of the institution	Prof. (Dr.) Amal K Ghosh
• Designation	Principal
• Does the institution function from its own campus?	Yes
• Phone no./Alternate phone no.	03324364929
• Mobile no	9433342760
• Registered e-mail	naac.nsec@gmail.com
• Alternate e-mail	principal@nsec.ac.in
• Address	Techno City, Garia
• City/Town	Kolkata
• State/UT	West Bengal
• Pin Code	700152
2.Institutional status	
• Affiliated /Constituent	Affiliated
• Type of Institution	Co-education
• Location	Semi-Urban

• Financial Status	Self-financing				
• Name of the Affiliating University	Maulana Abul Kalam Azad Universtiy of Technology (MAKAUT)				
• Name of the IQAC Coordinator	Prof. (Dr.) Sukumar Roy				
• Phone No.	03324364929				
• Alternate phone No.	03324361285				
• Mobile	9433408287				
• IQAC e-mail address	iqac@nsec.ac.in				
• Alternate Email address	sukumar.roy@nsec.ac.in				
3.Website address (Web link of the AQAR (Previous Academic Year)	https://www.nsec.ac.in/page.php?id=512				
4.Whether Academic Calendar prepared during the year?	Yes				
• if yes, whether it is uploaded in the Institutional website Web link:	https://www.nsec.ac.in/page.php?id=557				
5.Accreditation Details					
Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	B+	2.52	2019	28/03/2019	27/03/2024
6.Date of Establishment of IQAC			12/06/2013		
7.Provide the list of funds by Central / State Government UGC/CSIR/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.,					

Institutional/Department /Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Institution's Innovation Council, NSEC	WBCST	Department of Science & Technology and Biotechnology, Govt. of West Bengal	365	0.5 Lakh
Dr. Koushik Dutta, ECE, NSEC	SERB Core Research Grant	Anusandhan National Research Foundation (ANRF), DST, GOI	1095	47.93 Lakhs

8. Whether composition of IQAC as per latest NAAC guidelines	Yes		
<ul style="list-style-type: none"> Upload latest notification of formation of IQAC 	View File		
9. No. of IQAC meetings held during the year	4		
<ul style="list-style-type: none"> Were the minutes of IQAC meeting(s) and compliance to the decisions have been uploaded on the institutional website? 	Yes		
<ul style="list-style-type: none"> If No, please upload the minutes of the meeting(s) and Action Taken Report 	No File Uploaded		
10. Whether IQAC received funding from any of the funding agency to support its activities during the year?	No		
<ul style="list-style-type: none"> If yes, mention the amount 			
11. Significant contributions made by IQAC during the current year (maximum five bullets)			
<ul style="list-style-type: none"> Dr. Koushik Dutta, Head of the Department of Electronics and Communication Engineering, has been awarded a Core Research Grant from the Department of Science and Technology, Government of India, 			

through the Anusandhan National Research Foundation (formerly SERB), totalling ₹ 47.93 Lakhs. • The Institution's Innovation Council has been granted ₹ 0.5 Lakhs by the Department of Science & Technology and Biotechnology, Government of West Bengal, to establish an IIP Cell on campus. • The institute received Zee 24 Ghanta "Education Excellence Award 2024" for "Imparting Quality Engineering Education". • Team Electronauts secured the first prize in the Smart India Hackathon (SIH 2023) for their solution to Problem Statement 1300 and were awarded a cash prize of ₹1 Lakh. • Team "IRIS" was the runner-up in INSTINCT 3.0, the leading innovation challenge and hackathon for the power distribution sector, winning a cash prize of ₹1 Lakh.

12. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

Plan of Action	Achievements/Outcomes
Organize Technical Events with IEEE Student Branch Chapters, outreach programs, and collaborative activities.	The IEEE Student Branch Chapters organized various technical events, including the IEEE APS Distinguished Lecturer (APS DL) Talk, IEEE lectures, and membership development meetings. Collaborative activities with SAMEER, JU, MAKAUT, SNU, and CU promoted outreach programs, fostering knowledge exchange and advancing technical education, while also supporting the
Special focus on VLSI, high-frequency engineering, and artificial intelligence, and machine learning.	A research grant of ₹47.93 Lakhs was received from ANRF for
Initiatives for internship opportunities, placement, and career guidance.	The college provided 85 internships, 26 fieldwork experiences, and 146 industry visits to enhance student employability. Additionally, 125 students received Blockchain certifications from NIELIT, 275 earned cloud computing certifications from Google Asia, and 35 enrolled in a Japanese language program with Accenture.

	<p>These initiatives contributed to 237 successful placements, demonstrating the college's commitment to career development and industry engagement.</p>
<p>Emphasis on multidisciplinary research, research guidance, sponsored projects, journal publications, and patents.</p>	<p>The institute emphasized multidisciplinary research, leading to significant achievements. Five faculty members were awarded Ph.D. degrees, and 34 papers were published in UGC-notified journals, with nine in international peer-reviewed journals. Additionally, 36 book chapters and 19 conference publications were completed. The institute also received two patents, highlighting its commitment to research excellence and innovation.</p>
<p>Organize industry-oriented value-added training cum hands-on training programs.</p>	<p>The institute organized 36 industry-oriented value-added training programs, providing hands-on experience to students. Additionally, 147 industrial training sessions, 26 fieldwork opportunities, and 62 internships were offered, enhancing practical knowledge and bridging the gap between academic learning and industry requirements for student development and career readiness.</p>
<p>Organize industry interaction, academic expert lectures, and alumni talks to expose students to the latest technology and industry practices.</p>	<p>Various events were organized to expose students to the latest industry practices, including an industrial visit to Doordarshan Kendra, Kolkata, and an educational excursion to IIT Kharagpur. Additionally, the Google Cloud Community Day (GCCD) Extended Event, along</p>

	<p>with sessions on Lean Start-up and minimum viable product/business, provided valuable insights into cutting-edge technology and industry trends.</p>
<p>Organize orientation programs and design an effective Induction program.</p>	<p>Orientation programs and an effective induction program were organized, covering key areas such as Indian polity and society, anti-ragging, and mandatory additional requirements. Students were introduced to Massive Online Open Courses (MOOCs) for honors credit points, value-added training, internships, and innovation. Sessions on start-ups, prototyping, entrepreneurship, intellectual property rights, psychological counseling, hackathons, and yoga & meditation further supported holistic development and student well-being.</p>
<p>Arrange and participate in workshops, e-summit, Hult Prize, Hackathon under IIC & EDC.</p>	<p>Under the IIC & EDC, various impactful events were organized, including the Smart India Hackathon (SIH 2023), Hult Prize on Campus, and a Roadshow on Digital India RISC-V - VEGA Processors. Workshops covered topics like IT career success, blockchain, Lean Start-up, and MSME hackathons for women. Additionally, an expert session on minimum viable products, a webinar for Indian Startup Day, and evaluations further fostered innovation and entrepreneurship.</p>
<p>Achieve NBA accreditation of programs, 2nd Cycle NAAC accreditation, and participation in NIRF.</p>	<p>In 2024, four B. Tech programs, BME, CSE, ECE, and EE received NBA accreditation. The institute successfully submitted the Self-</p>

	<p>Study Report (SSR) and qualified for the NAAC Peer Team Visit for the 2nd Cycle NAAC Accreditation. Additionally, the institute registered for the NIRF-2025 rankings in both Engineering and Innovation categories, marking significant progress in enhancing academic standards and national recognition.</p>
<p>Arrange FDP, seminars, conferences, workshops, invited talks, and webinars.</p>	<p>The institute organized a 6-day FDP on Advanced Machine Learning, with 48 faculty participants. A total of 56 faculty members completed 116 FDPs across various themes and platforms. Additionally, 8 invited talks and 6 webinars were conducted on diverse topics, along with a one-day workshop on Intellectual Property Rights (IPR), enhancing faculty development and knowledge.</p>
<p>Initiative for MOUs with universities, training institutions, and industries for certificate courses, internships, collaborative projects, papers, faculty/student exchange, etc.</p>	<p>MOUs were signed with key organizations to enhance skill development, internships, and collaborative projects. Partnerships included SwitchOn Foundation for skill development, Tata Community Initiative Trust for Microsoft Cyber Security Scholarship, and Giby Technologies for employability and R&D. Additionally, an MOU was established with the IC Design and Fabrication Centre, Jadavpur University, offering training and certification in</p>
<p>Revision of various policies, and promotional activities, ICT enable classrooms & modernized</p>	<p>Various policies were revised, including the learner policy, which was updated to categorize</p>

laboratory.	students as slow and advanced learners. An IPR cell and policy were established, with activities showcased on the college's Facebook page and digital display boards. ICT-enabled classrooms were enhanced with LCD projectors, and internet bandwidth was increased to 1 Gbps. Computer labs were upgraded with projector facilities, and the entire campus, including classrooms and laboratories, is now fully monitored by CCTV cameras.
Encouraged to pursue more number of SWAYAM courses, higher studies, and engineering services.	Four faculty members completed certification courses via the SWAYAM-NPTEL platform, and seven participated in a 5-day online FDP on human values in technical education. Additionally, 355 students earned 153 certification courses in domain knowledge from the SWAYAM-NPTEL platform. Twelve students qualified for GATE, one for IELTS, 17 enrolled in higher studies, and 253 students were successfully placed through recruitment.
13. Whether the AQAR was placed before statutory body?	Yes
<ul style="list-style-type: none"> Name of the statutory body 	
Name	Date of meeting(s)
BOG	15/11/2024
14. Whether institutional data submitted to AISHE	

Year	Date of Submission
2022-2023	25/01/2024

15. Multidisciplinary / interdisciplinary

The institute focuses on diversity, equal access, holistic development, and assessment reforms in line with the core principles of the NEP 2020, with the aim of equipping students with the skills and competencies necessary to become responsible citizens and good human beings. Affiliated with Maulana Abul Kalam Azad University of Technology (MAKAUT), the institute ensures that students have access to the latest technologies and courses. Innovation is a cornerstone of the institute's philosophy, which stays aligned with developments in engineering and technological education both nationally and globally. Students are encouraged to develop out-of-the-box solutions for complex engineering challenges. In addition to the regular curriculum, Phoenix, the institute's official tech club, brings students from various departments together to engage in a wide range of learning activities. For example, Civil Engineering or Electrical Engineering students collaborate with their peers from Electronics and Communication Engineering when working on programming tasks. This collaborative approach fosters a spirit of multidisciplinary education. To meet the evolving demands of the global market, the institute has introduced emerging interdisciplinary courses such as Biomedical Engineering, Computer Science & Business Systems, and Artificial Intelligence & Machine Learning. These courses reflect advancements in technology and the changing needs of the industry. In the institute's language laboratories, assignments span a wide variety of fields, further enhancing students' versatility. Students are also encouraged to choose or assign project work in interdisciplinary domains, promoting broader learning experiences. The Institution Innovation Council (IIC) and the Entrepreneurship Development Cell (EDC) organize technical competitions focused on multidisciplinary areas, cutting-edge technologies, and prototyping. The institute has signed several MOUs with industries and other academic institutions to facilitate research, internships, and collaborative projects in multidisciplinary and interdisciplinary fields. Additionally, the institute's NSS and CSR clubs actively engage in community development and environmental protection projects, instilling a sense of social responsibility among students.

16. Academic bank of credits (ABC):

The institute agrees with the Academic Bank of Credits (ABC) framework to ensure transparency and digital access to student

credentials. Affiliated with MAKAUT, the institute is bound by the university's regulations. The institute has been awaiting the university's full implementation of the ABC system. However, MAKAUT has already introduced a digital repository for tracking Continuous Assessments (CAs), Mandatory Additional Requirement (MAR) points (extracurricular activity points), and credits for the B.Tech Honours Degree. An additional 20 credits must be earned from the Massive Open Online Courses (MOOCs) platform to qualify for the Honours degree. The credits earned over the four years are accumulated and stored digitally. Faculty members authenticate certificates and upload credits against students' enrolment numbers through the university portal.

17.Skill development:

The institute places special emphasis on developing both technical and soft skills among students to help them carve out a niche in this competitive world. Various training programs, including need-based Value-Added Training (both technical and non-technical), Industry Readiness Programs, hands-on training, seminars, and webinars, are organized regularly each semester based on the evolving needs of the students. Competitive coding, aptitude training, and soft skills development are incorporated into the regular class schedule. As part of experiential and skill-based learning, the institute has established several industry-academia collaborations, including partnerships with NASSCOM - IT-ITES Sector Skill Council (Future Skill Prime platform), NIELIT for Blockchain Certification Courses, Accenture for the International Language Program, Wadhvani Foundation for Start-up collaboration, Google for Asia-specific programs, and Global Talent Track (GTT) for Soft Skills and Aptitude training, among others.

18.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)

The college is named after the iconic patriot Netaji Subhas Chandra Bose, whose relentless determination and dedication inspire our vision in the pursuit of academic excellence. The curriculum is taught in English, but faculty members are also equipped to deliver lessons in vernacular languages such as Hindi and Bengali, if necessary. The institute regularly organizes workshops and interactive sessions on the Art of Living, Yoga, and Meditation to support the lifestyle management of students. The institute takes special initiative in observing important dates of Indian history and culture - such as Independence Day, Republic Day, Gandhi Jayanti, Rabindra-Nazrul Jayanti, Youth Day, World Yoga Day, Teacher's Day, Indian Constitution Day, and Bhasha Divas - to raise

awareness and engage students in India's rich cultural heritage, language, and traditions.

19.Focus on Outcome based education (OBE):Focus on Outcome based education (OBE):

The institute extensively practices Outcome-Based Education (OBE), a student-centric learning methodology. All programs and courses designed and offered by MAKAUT adhere to the latest AICTE guidelines. The Internal Quality Assurance Cell (IQAC), in collaboration with the Program Assessment Committee (PAC), focuses on quality initiatives, quality sustenance, and quality enhancement in the teaching-learning process, aiming to impart knowledge, skills, and behavioral improvement. The Vision and Mission of the Institute and its Departments are formulated based on stakeholder feedback and are appropriately disseminated. Program Educational Objectives (PEOs) and Program Outcomes (POs) are clearly defined for all programs in accordance with the guidelines set by apex bodies. Course Outcomes (COs) are clearly defined, mapped using Bloom's Taxonomy, and evaluated using rubrics. For each program, course outcomes are set, and attainment is measured through various assessment processes and tools. The attainment of program outcomes is regularly compared with predefined targets. In alignment with benchmarks for course outcomes and program outcomes, appropriate action plans are developed to address any gaps.

20.Distance education/online education:

The institute is affiliated with Maulana Abul Kalam Azad University of Technology (MAKAUT) and does not offer distance or online learning courses. All approved programs are taught in traditional classroom settings, utilizing Information and Communication Technology (ICT) to enhance the learning experience. However, technology-enabled online platforms and e-resources are integrated to support students' learning at their own pace. Lecture materials, assignments, videos, and other resources are made available through Google Classroom. Some laboratory experiments are conducted using virtual lab facilities, simulation software, and live demonstrations. Additionally, several quizzes, assignments, and multiple-choice questions (MCQs) are conducted online. The institute has adequate digital infrastructure to support Distance/Online Education, including a 1Gbps internet leased line with Wi-Fi connectivity, digital and smart online conferencing setups, digital smartboards, and more.

Extended Profile

1.Programme

1.1	15
Number of courses offered by the institution across all programs during the year	
File Description	Documents
Data Template	View File
2.Student	
2.1	2849
Number of students during the year	
File Description	Documents
Institutional Data in Prescribed Format	View File
2.2	1
Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year	
File Description	Documents
Data Template	View File
2.3	656
Number of outgoing/ final year students during the year	
File Description	Documents
Data Template	View File
3.Academic	
3.1	201
Number of full time teachers during the year	
File Description	Documents
Data Template	View File
3.2	203
Number of sanctioned posts during the year	

File Description	Documents
Data Template	View File
4.Institution	
4.1 Total number of Classrooms and Seminar halls	68
4.2 Total expenditure excluding salary during the year (INR in lakhs)	1819.41
4.3 Total number of computers on campus for academic purposes	1191
Part B	
CURRICULAR ASPECTS	
1.1 - Curricular Planning and Implementation	
1.1.1 - The Institution ensures effective curriculum delivery through a well planned and documented process	
<p>Curriculum delivery is a key strategic goal of the institute, focused on fostering an environment that imparts essential knowledge, skills, values, and attitudes to students. The institute consistently works towards improving students' learning, abilities, and behaviour through targeted efforts. An academic calendar is prepared in alignment with the affiliated university's schedule. Each course instructor prepares a course file, outlining the lesson plan, course objectives, and expected outcomes, which is shared with students at the start of each semester.</p> <p>Lessons are delivered using a structured routine that includes presentations with visual aids and smart teaching techniques. Tutorial classes, laboratory experiments, design-based assignments, and project work are integral parts of the curriculum. Regular internal tests, quizzes, and group discussions assess student progress. Remedial classes are held for slow learners, while special classes are organized for advanced learners. The timetable also includes soft skills and aptitude training to enhance students' overall development.</p> <p>The institute also organizes value-added training, industry visits,</p>	

and internships, providing students with real-world exposure. A "Ready Reckoner" is formulated, outlining academic activities, target dates, and responsible authorities. Students' performance is documented and analysed, with results guiding modifications to lesson plans based on feedback to improve learning outcomes.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	https://www.nsec.ac.in/page.php?id=558

1.1.2 - The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)

The institute prepares an academic calendar to ensure academic discipline and the smooth execution of the continuous internal evaluation process. The detailed academic schedule is developed based on the affiliated university's calendar. Additionally, the institute has created a structured document, "Academic Activities: A Ready Reckoner," which outlines component-wise academic tasks for both odd and even semesters, specifying deadlines, responsible individuals, and supervising authorities.

The academic calendar includes four continuous assessments (CAs) for theory courses and two continuous assessments (PCAs) for laboratory courses each semester. CA1 evaluates skills in presentations, quizzes, and group discussions; CA2 focuses on report writing abilities; CA3 is a pen-and-paper class test; CA4 is a centralized online test, collectively assessing various student skills and competencies. Laboratory assessments (PCA1 & PCA2) are based on report evaluation using rubrics.

The Internal Quality Assurance Cell (IQAC) monitors and evaluates the internal evaluation process, enhancing the teaching-learning experience and ensuring quality across operations. It considers recommendations from committees and management, implementing corrective actions as needed. The IQAC also formulates quality benchmark policies to improve continuous internal evaluations and ensure the effective implementation of outcome-based education, refining academic delivery and assessment systems to consistently meet high standards.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	https://www.nsec.ac.in/page.php?id=557

1.1.3 - Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the year. Academic council/BoS of Affiliating University Setting of question papers for UG/PG programs Design and Development of Curriculum for Add on/ certificate/ Diploma Courses Assessment /evaluation process of the affiliating University

A. All of the above

File Description	Documents
Details of participation of teachers in various bodies/activities provided as a response to the metric	View File
Any additional information	View File

1.2 - Academic Flexibility

1.2.1 - Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

1.2.1.1 - Number of Programmes in which CBCS/ Elective course system implemented

15

File Description	Documents
Any additional information	View File
Minutes of relevant Academic Council/ BOS meetings	View File
Institutional data in prescribed format (Data Template)	View File

1.2.2 - Number of Add on /Certificate programs offered during the year

1.2.2.1 - How many Add on /Certificate programs are added during the year. Data requirement

for year: (As per Data Template)**291**

File Description	Documents
Any additional information	View File
Brochure or any other document relating to Add on /Certificate programs	View File
List of Add on /Certificate programs (Data Template)	View File

1.2.3 - Number of students enrolled in Certificate/ Add-on programs as against the total number of students during the year**6707**

File Description	Documents
Any additional information	View File
Details of the students enrolled in Subjects related to certificate/Add-on programs	View File

1.3 - Curriculum Enrichment**1.3.1 - Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum**

The institution addresses various cross-cutting societal issues through its curriculum, programs, policies, and different bodies. The institution works diligently to nurture a culture that promotes disciplined behaviour, gender sensitivity, environmental awareness, strong moral values, empathy, sympathy, and the cultivation of healthy relationships.

The institution caters to students from diverse socio-cultural backgrounds, introducing the concept of gender sensitization early through the Orientation and Induction Program. Social issues such as relationships, caste, declining sex ratios, eve-teasing, racism, sexism, and others are thoughtfully addressed through courses in English, the Language Laboratory, and Universal Human Values. Awareness programs on gender equality and women's empowerment are conducted through guest lectures by prominent social workers and psychometric counselling sessions.

The curriculum integrates "Environmental Sciences and Biology for Engineers", providing students with exposure to ecosystems, biodiversity conservation, renewable and non-renewable resources, environmental pollution, and management. Students engage in assignments focused on energy saving, green homes, water conservation, rainwater harvesting, recycling, composting, and pollution prevention. Programs like campus cleanliness drives, eco-rallies, and Green Abhiyan under Swachh Bharat further encourage sustainable practices. These initiatives aim to shape students into responsible, socially conscious individuals who respect diversity and understand their role in addressing societal and environmental challenges.

File Description	Documents
Any additional information	View File
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.	View File

1.3.2 - Number of courses that include experiential learning through project work/field work/internship during the year

276

File Description	Documents
Any additional information	View File
Programme / Curriculum/ Syllabus of the courses	View File
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View File
MoU's with relevant organizations for these courses, if any	View File
Institutional Data in Prescribed Format	View File

1.3.3 - Number of students undertaking project work/field work/ internships

640

File Description	Documents
Any additional information	View File
List of programmes and number of students undertaking project work/field work/ /internships (Data Template)	View File

1.4 - Feedback System

1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders Students Teachers Employers Alumni

A. All of the above

File Description	Documents
URL for stakeholder feedback report	https://nsec.ac.in/impdoc/agar2023-24/141FeedbackDatabase2023-24.pdf
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View File
Any additional information	View File

1.4.2 - Feedback process of the Institution may be classified as follows

A. Feedback collected, analyzed and action taken and feedback available on website

File Description	Documents
Upload any additional information	View File
URL for feedback report	https://nsec.ac.in/impdoc/agar2023-24/142StudentsFeedbackOddSemester2023-2024.pdf

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment Number Number of students admitted during the year

2.1.1.1 - Number of students admitted during the year

734

File Description	Documents
Any additional information	View File
Institutional data in prescribed format	View File

2.1.2 - Number of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the year (exclusive of supernumerary seats)

2.1.2.1 - Number of actual students admitted from the reserved categories during the year

120

File Description	Documents
Any additional information	View File
Number of seats filled against seats reserved (Data Template)	View File

2.2 - Catering to Student Diversity

2.2.1 - The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners

Assessment of the learning level of the students is a continuous process which is pursued throughout the program. The knowledge level and learning needs of every incoming batch is assessed through General Perception Test (GPT) on Mathematics, Physics, Chemistry & English during Induction Program. This test includes multiple-choice questions on Mathematics, Physics, and Chemistry, categorized into easy, moderate, and difficult levels, with negative marking. Additionally, an English questionnaire is used to assess the student's ability to communicate clearly and scientifically.

Student progress is monitored continuously through interactive teaching, daily activities, feedback from teachers, and performance in tests, assignments, quizzes, and final exams. Based on these assessments, students are categorized as slow or advanced learners. Both groups receive tailored support programs. Slow learners benefit from personalized attention, mentoring, special coaching, remedial classes, study materials, and extra sessions for doubt clarification. Advanced learners are encouraged to participate in competitions, research, internships, and exams, with guidance in project management and skill development. Additionally, both groups

have access to soft skills and aptitude training, MOOCs, and GATE preparation. These initiatives ensure that every student receives the appropriate guidance to succeed and maximize their potential.

File Description	Documents
Paste link for additional information	https://nsec.ac.in/impdoc/agar2022-23/221Policy_SlowLearnerandAdvancedLearners.pdf
Upload any additional information	View File

2.2.2 - Student- Full time teacher ratio (Data for the latest completed academic year)

Number of Students	Number of Teachers
2849	201

File Description	Documents
Any additional information	View File

2.3 - Teaching- Learning Process

2.3.1 - Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

The institute prioritizes student-centric learning and fosters a creative environment that encourages independent thinking and active interaction with teachers and peers. The university curriculum offers ample opportunities for experiential learning, which the institute fully leverages. Several innovative techniques have been developed to enhance experiential learning, including learning through observation, value-added training, extramural labs, simulation-based labs, and team projects. Additionally, programming proficiency courses, tech-oriented programs in collaboration with professional bodies, and industry visits and internships further enrich student experiences, fostering practical skills and real-world applications.

Participative learning nurtures self-learning and stimulates creativity. The institute employs methods like smart teaching techniques, "teach while you learn," seminars, PPT presentations, and technical events to enhance learning. Students actively participate in organizing technical seminars, Tech Fests, and cultural programs, helping them develop managerial, leadership, and teamwork skills. The Institute Innovation Cell (IIC) and

Entrepreneurship Development Cell (EDC) promote innovation and entrepreneurship by guiding and mentoring students, supporting start-ups, and organizing idea-to-prototype competitions, prototype realization contests, and Hackathons. Analytical and problem-solving skills are further developed through design-based assignments, industry-related projects, extensive tutorials, group social service activities, and collaborations. These initiatives ensure holistic student development and prepare them for future challenges.

File Description	Documents
Upload any additional information	View File
Link for additional information	https://www.nsec.ac.in/page.php?id=523

2.3.2 - Teachers use ICT enabled tools for effective teaching-learning process. Write description in maximum of 200 words

The college embraced ICT in its teaching-learning process long ago, integrating computers, laptops, and the Internet into daily practices for both teachers and students. ICT-enabled classrooms facilitate e-learning, while the library is automated and accessible to e-resources through LIBSYS, offering unlimited user logins. The digital library features a wealth of NPTEL video lectures, e-books, and e-journals. The entire campus is Wi-Fi enabled, ensuring students remain connected for real-time information and tech-oriented learning. Faculty members use technology to enhance the teaching-learning experience.

When the COVID-19 pandemic disrupted traditional teaching methods, the IQAC quickly recognized the need for digital teaching and initiated its implementation. The faculty seamlessly adopted online platforms, creating digital classrooms using Google Meet and Zoom. They developed e-content and utilized e-resources, while laboratory experiments were conducted through virtual lab facilities, simulation software, and live demonstrations. Faculty provided study materials and assignments through Google Classroom, conducting regular quizzes to assess progress. Teachers effectively utilized ICT tools, including laptops, smartphones, headphones, virtual boards, the internet, video lectures, audio lectures, PPTs, YouTube links, and e-content to deliver lessons. These processes continued to enhance the learning experience, maintaining education quality, ensuring uninterrupted progress, and fostering growth through modern technologies.

File Description	Documents
Upload any additional information	View File
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	View File

2.3.3 - Ratio of mentor to students for academic and other related issues (Data for the latest completed academic year)

2.3.3.1 - Number of mentors

175

File Description	Documents
Upload, number of students enrolled and full time teachers on roll	View File
Circulars pertaining to assigning mentors to mentees	View File
Mentor/mentee ratio	View File

2.4 - Teacher Profile and Quality

2.4.1 - Number of full time teachers against sanctioned posts during the year

201

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	View File
Any additional information	View File
List of the faculty members authenticated by the Head of HEI	View File

2.4.2 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.B Superspeciality / D.Sc. / D.Litt. during the year (consider only highest degree for count)

2.4.2.1 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.C Superspeciality / D.Sc. / D.Litt. during the year

56

File Description	Documents
Any additional information	View File
List of number of full time teachers with Ph. D. / D.M. / M.Ch./ D.N.B Super specialty / D.Sc. / D.Litt. and number of full time teachers for year (Data Template)	View File

2.4.3 - Number of years of teaching experience of full time teachers in the same institution (Data for the latest completed academic year)

2.4.3.1 - Total experience of full-time teachers

2029

File Description	Documents
Any additional information	No File Uploaded
List of Teachers including their PAN, designation, dept. and experience details(Data Template)	View File

2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and mode. Write description within 200 words.

Internal assessments are conducted as per the academic calendar schedule. The institute conducts four continuous assessments (CAs) of 25 marks for theory courses and two continuous assessments (PCAs) of 40 marks for laboratory courses every semester. Continuous Assessments (CAs) evaluate presentation, report-writing, exam performance -class test, and online skills, in line with Outcome-Based Education and Bloom's Taxonomy.

Theory courses:

- Unit test question papers are based on Course Outcomes (COs).
- Answer scripts are evaluated and returned to students within 7 days.
- Detailed discussions of answers follow.
- Tabulated marks are displayed within 2 days.

Laboratory practices:

- Laboratory reports are evaluated based on rubrics and returned to students by the next lab session.
- Marks are awarded for each experiment, along with corrected reports.

Sessionals:

- Rubrics-based assessment is used for all assignments.
- Weightages are given for attendance, progress shown in notebooks, final reports, and viva voce.

Projects/Seminars:

- Assessment is based on rubrics outlining evaluation criteria and scores.
- Weightages focus on creativity, originality, uniqueness, and practical benefits of the project.
- Mid-term progress is evaluated through PowerPoint presentations and report submissions.

These structured assessments ensure comprehensive evaluation and promote student development across theory, practical, and project-based learning.

File Description	Documents
Any additional information	View File
Link for additional information	https://nsec.edugrievance.com/

2.5.2 - Mechanism to deal with internal examination related grievances is transparent, time- bound and efficient

Internal examination-related grievances are addressed within the institute's jurisdiction, focusing on internal assessments. The institute is responsible solely for the internal evaluation, and any grievances are handled internally. If there is a dispute regarding the evaluation mechanism, the matter is referred to the Heads of Departments (HODs) and the mentor for resolution.

Due to the transparency of the internal assessment system, grievances are rare, and their likelihood is low. However, if any issue arises related to sessionals, practicals, or unit tests, the concerned faculty address it promptly. Unit test answer scripts are generally graded within 7 days, and corrected scripts are shown to students for clarification of any doubts. The unit test marks are

then published and displayed within 2 days.

If a student remains dissatisfied with the marks after clarification from the faculty, they may appeal to the HOD through their mentor. The HOD will then take necessary steps for reassessment of the answer scripts within a week. Additionally, assignments and practical reports are evaluated, and marks are awarded within one week. This efficient and transparent system ensures quick resolution of grievances, maintaining fairness and fostering a positive academic environment.

File Description	Documents
Any additional information	View File
Link for additional information	http://nsec.edugrievance.com/

2.6 - Student Performance and Learning Outcomes

2.6.1 - Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

Program Outcomes (POs) and Course Outcomes (COs) are fundamental components of outcome-based education that guide the curriculum and teaching-learning process. These outcomes are communicated at the beginning of each academic session to ensure that all stakeholders understand the knowledge, skills, and competencies expected to be achieved by the end of the program or specific courses.

For Teachers: Before the academic year begins, faculty members are briefed on the POs and COs relevant to the courses they will teach. These outcomes are shared in curriculum documents and syllabi, which are accessible to all instructors. Faculty members are encouraged to align their teaching strategies, learning activities, and assessments with these outcomes. Regular meetings are held to discuss updates or revisions, ensuring continuous alignment with academic goals.

For Students: At the start of each course, instructors introduce the POs and COs, explaining how the course content and assessments are designed to achieve these outcomes. The course syllabi distributed to students includes a detailed outline of the POs and COs. The institution also provides access to this information on the official website, brochures, and notice boards. Special sessions are periodically organized to reinforce understanding and address any queries.

File Description	Documents
Upload any additional information	View File
Paste link for Additional information	https://www.nsec.ac.in/impdoc/2ndcycle/criteria2/261_POs_PSOs_COs_on_Website.pdf
Upload COs for all Programmes (exemplars from Glossary)	View File

2.6.2 - Attainment of Programme outcomes and course outcomes are evaluated by the institution.

The institution evaluates the attainment of Program Outcomes (POs) and Course Outcomes (COs) to ensure students meet the intended learning objectives. COs define the specific knowledge, skills and attitudes students should acquire by the end of a course, while POs refer to the broader competencies expected upon completion of the entire program. These POs align with the twelve graduate attributes defined by the National Board of Accreditation (NBA).

To assess CO attainment, the institution uses a combination of internal continuous assessment (X) and the final university examination (Y), with weighted calculations for theory and laboratory courses. For theory courses, CO attainment is calculated as $0.7X + 0.3Y$, and for laboratory courses, it is $0.6X + 0.4Y$. Each CO is mapped to the corresponding PO. The PO attainment is measured using direct assessment (DA) and indirect assessment (IA). The total PO attainment is calculated as Total Attainment (TA) = $0.8DA + 0.2IA$. DA is derived from CO attainment, while IA includes surveys of students, graduates, and employers.

The institution regularly analyses the results and takes corrective actions such as revising the program, improving teaching methods, and using feedback to address any gaps and enhance CO and PO attainment.

File Description	Documents
Upload any additional information	View File
Paste link for Additional information	https://nsec.ac.in/impdoc/aqar2022-23/262_At_tainment_impdoc_262_Attainment.pdf

2.6.3 - Pass percentage of Students during the year

2.6.3.1 - Total number of final year students who passed the university examination during the year**635**

File Description	Documents
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	View File
Upload any additional information	View File
Paste link for the annual report	https://nsec.ac.in/impdoc/agar2023-24/263.pdf

2.7 - Student Satisfaction Survey**2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a weblink)**

<https://nsec.ac.in/impdoc/agar2023-24/271.pdf>

RESEARCH, INNOVATIONS AND EXTENSION**3.1 - Resource Mobilization for Research****3.1.1 - Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)****3.1.1.1 - Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)****47.93**

File Description	Documents
Any additional information	View File
e-copies of the grant award letters for sponsored research projects /endowments	View File
List of endowments / projects with details of grants(Data Template)	View File

3.1.2 - Number of teachers recognized as research guides (latest completed academic year)

3.1.2.1 - Number of teachers recognized as research guides

20

File Description	Documents
Any additional information	View File
Institutional data in prescribed format	View File

3.1.3 - Number of departments having Research projects funded by government and non government agencies during the year**3.1.3.1 - Number of departments having Research projects funded by government and non-government agencies during the year**

1

File Description	Documents
List of research projects and funding details (Data Template)	View File
Any additional information	View File
Supporting document from Funding Agency	View File
Paste link to funding agency website	https://anrfonline.in/ANRF/HomePage

3.2 - Innovation Ecosystem

3.2.1 - Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

The institution nurtures an ecosystem that promotes innovation and knowledge transfer, aiming to harness students' creativity and foster their entrepreneurial spirit. The key focus is to build a dynamic innovation ecosystem and enhance the cognitive abilities of technology students. The NSEC Entrepreneurship Development Cell (EDC-NSEC) was established to encourage innovation and entrepreneurship by providing mentorship, guidance, and resources for startup creation. This initiative aims to spread the entrepreneurial mindset, creating a culture that extends beyond the NSEC campus.

The Institute Innovation Council (IIC), formed in accordance with MHRD-IIC guidelines, plays a crucial role in embedding innovation within the curriculum. The council inspires and supports students to explore new ideas, contributing to a culture of innovation on

campus. To engage students, the IIC organizes expert talks, workshops, seminars, and interactions with entrepreneurs, investors, and professionals. The institution also hosts hackathons, idea competitions, and prototype challenges, often in collaboration with industries, and encourages students to participate in regional and national events. These initiatives help some students transition from "job seekers" to "job creators," starting their own ventures and opening doors for others. Additionally, the incubation center and Intellectual Property Rights (IPR) cell foster startups, business prototypes, and patent filings.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.nsec.ac.in/page.php?id=601

3.2.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the year

3.2.2.1 - Total number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during the year

11

File Description	Documents
Report of the event	View File
Any additional information	View File
List of workshops/seminars during last 5 years (Data Template)	View File

3.3 - Research Publications and Awards

3.3.1 - Number of Ph.Ds registered per eligible teacher during the year

3.3.1.1 - How many Ph.Ds registered per eligible teacher within the year

34

File Description	Documents
URL to the research page on HEI website	https://www.nsec.ac.in/page.php?id=556
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc (Data Template)	View File
Any additional information	View File

3.3.2 - Number of research papers per teachers in the Journals notified on UGC website during the year

3.3.2.1 - Number of research papers in the Journals notified on UGC website during the year

34

File Description	Documents
Any additional information	View File
List of research papers by title, author, department, name and year of publication (Data Template)	View File

3.3.3 - Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during the year

3.3.3.1 - Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during year

55

File Description	Documents
Any additional information	View File
List books and chapters edited volumes/ books published (Data Template)	View File

3.4 - Extension Activities

3.4.1 - Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the year

Extension activities play a crucial role in broadening students' perspectives and fostering social responsibility. The institute emphasizes that education extends beyond the classroom, encouraging

students to engage with their communities and address social issues. Through initiatives like the NSS Unit and CSR Club, students actively participate in various projects aimed at uplifting the underprivileged and promoting sustainable solutions to local and global challenges.

By adopting five villages under the Unnat Bharat Abhiyan, the institute demonstrates its commitment to social development. These extension activities not only enhance students' understanding of societal dynamics but also empower them to take action. Participation fosters a sense of community and encourages lifelong friendships and professional networks among students.

The Rotaract Club organizes numerous initiatives, including clothing drives, drawing competitions for underprivileged children, food distribution, and tree plantation drives. These efforts highlight the importance of community service and instill a spirit of selflessness in students. Ultimately, the impact of these activities extends beyond immediate assistance; they cultivate a generation of socially conscious individuals dedicated to creating a more equitable and compassionate society.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/page.php?id=643
Upload any additional information	View File

3.4.2 - Number of awards and recognitions received for extension activities from government / government recognized bodies during the year

3.4.2.1 - Total number of awards and recognition received for extension activities from Government/ Government recognized bodies year wise during the year

12

File Description	Documents
Any additional information	View File
Number of awards for extension activities in last 5 year (Data Template)	View File
e-copy of the award letters	View File

3.4.3 - Number of extension and outreach programs conducted by the institution through

NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organized in collaboration with industry, community and NGOs) during the year

3.4.3.1 - Number of extension and outreach Programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the year

52

File Description	Documents
Reports of the event organized	View File
Any additional information	View File
Number of extension and outreach Programmes conducted with industry, community etc for the during the year (Data Template)	View File

3.4.4 - Number of students participating in extension activities at 3.4.3. above during year

3.4.4.1 - Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year wise during year

1908

File Description	Documents
Report of the event	View File
Any additional information	View File
Number of students participating in extension activities with Govt. or NGO etc (Data Template)	View File

3.5 - Collaboration

3.5.1 - Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship during the year

3.5.1.1 - Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year wise during the year

24

File Description	Documents
e-copies of related Document	View File
Any additional information	View File
Details of Collaborative activities with institutions/industries for research, Faculty	View File

3.5.2 - Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the year

3.5.2.1 - Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year wise during the year

3

File Description	Documents
e-Copies of the MoUs with institution./ industry/corporate houses	View File
Any additional information	View File
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	View File

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

The institution boasts robust infrastructure and physical facilities that enhance the teaching-learning experience in alignment with AICTE and affiliated University standards. The campus features a substantial amount of open space, providing a warm and inviting atmosphere that enhances the educational experience, facilitates career growth, and supports diverse research initiatives.

Classrooms are spacious, well-furnished, and equipped with modern technology, including computers, LCD projectors, webcams, headphones, and comprehensive LAN and Wi-Fi connectivity. This ensures a dynamic learning atmosphere. Each department is supported by well-equipped laboratories, including specialized facilities for conducting extramural experiments and a central computer lab that

enhances practical learning.

Notably, the institution has invested in advanced resources, such as virtual labs and simulation software for live experiment demonstrations. Additionally, students benefit from two state-of-the-art English communication labs, graphics halls, and an AutoCAD lab, alongside various workshops designed to enhance practical skills. The media center is outfitted with audio-visual equipment, complemented by a dedicated Webinar center for video conferencing.

Furthermore, seminar halls and auditoriums are equipped with smart boards and adequate seating, ensuring effective presentations and discussions. The entire campus is LAN and Wi-Fi enabled, allowing students continuous internet access, thereby facilitating seamless learning and research opportunities.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.nsec.ac.in/page.php?id=517

4.1.2 - The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

The institution places a strong emphasis on the importance of sports and cultural activities in fostering holistic development among students. With a sprawling green-field playground, the campus offers ample outdoor sports facilities, including a football field, volleyball court, tennis court, cricket pitch, and open spaces for yoga. Adjacent to this area, a dedicated gymnasium provides students with access to fitness resources, while a drinking water plant serves the neighbouring community at minimal cost.

Indoors, the campus features a badminton court, table tennis, and spaces for games like carom and chess. The sports club actively organizes various tournaments and annual sports events, encouraging widespread participation from both students and faculty. Participants and winners are recognized with medals, certificates, and trophies, further motivating students to engage in inter-college and university sports programs.

In addition to sports, the institution is committed to a vibrant cultural atmosphere. The Eco-cultural club hosts a variety of events and competitions throughout the year, promoting student

involvement in areas such as singing, recitation, sketching, dancing, short films, and photography. The indoor facilities also accommodate exhibitions and cultural festivals, enriching the campus experience and allowing students to showcase their talents and interests.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	www.nsec.ac.in/page.php?id=517

4.1.3 - Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

56

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.nsec.ac.in/page.php?id=517
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View File

4.1.4 - Expenditure, excluding salary for infrastructure augmentation during the year (INR in Lakhs)

4.1.4.1 - Expenditure for infrastructure augmentation, excluding salary during the year (INR in lakhs)

1177.97

File Description	Documents
Upload any additional information	No File Uploaded
Upload audited utilization statements	View File
Upload Details of budget allocation, excluding salary during the year (Data Template)	View File

4.2 - Library as a Learning Resource

4.2.1 - Library is automated using Integrated Library Management System (ILMS)

The college Central Library is a well-ventilated facility offering open access to a wide array of resources, including books, periodicals, journals, special reports, theses, Indian standards, magazines, newspapers, and university question papers. Equipped with Wi-Fi, the library features a large, air-conditioned reading room that can accommodate more than 100 users. The library boasts a diverse array of resources, including print journals, IEEE materials, CDs/DVDs, NPTEL lecture videos, e-books, and e-journals. Both e-books and e-journals are accessible on campus and off campus.

The library continually enhances its resources by adding new titles and the latest editions each semester. The library operates with full automation through the Integrated Library Management System (ILMS) software, LSEase (rel. 5.0), with a cloud version implemented since 2006. Additionally, TCS iON Library Software (DDF Version: 14.04.00.02) was introduced in September 2022.

Using LIBSYS, the library has established an e-resources center that supports unlimited user logins. The circulation module proficiently manages circulation activities and member records, featuring streamlined processes for issues, returns, renewals, and comprehensive member statistics. A suggestion box is also available to capture user feedback, facilitating ongoing improvements to library services. This robust system makes the Central Library a crucial asset for the college community.

File Description	Documents
Upload any additional information	View File
Paste link for Additional Information	https://www.nsec.ac.in/page.php?id=328

4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access toe-resources

A. Any 4 or more of the above

File Description	Documents
Upload any additional information	View File
Details of subscriptions like e-journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template)	View File

4.2.3 - Expenditure for purchase of books/e-books and subscription to journals/e- journals during the year (INR in Lakhs)

4.2.3.1 - Annual expenditure of purchase of books/e-books and subscription to journals/e-journals during the year (INR in Lakhs)

11.37

File Description	Documents
Any additional information	View File
Audited statements of accounts	View File
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	View File

4.2.4 - Number per day usage of library by teachers and students (foot falls and login data for online access) (Data for the latest completed academic year)

4.2.4.1 - Number of teachers and students using library per day over last one year

102

File Description	Documents
Any additional information	View File
Details of library usage by teachers and students	View File

4.3 - IT Infrastructure

4.3.1 - Institution frequently updates its IT facilities including Wi-Fi

The institute continuously keeps upgrading the internet bandwidth as the latest teaching-learning methods demand the usage of MOOCS/SPOKEN TUTORIAL/NPTEL/Coursera/Webinars etc. A separate server with 20 TB HDD is being maintained exclusively for NPTEL video streaming within the campus. The institute keeps upgrading the

software packages; new software packages presently being used in the industry, are being purchased to prepare the students industry-ready. The institution continuously upgrades multimedia facilities like audio-visual equipment and a Webinar centre which facilitates the video conference for effective teaching-learning process. The departments of the institution are equipped with the latest technology projectors so that teachers can teach through audio-visual aids and show video lectures of eminent personalities. Teachers are gradually trained to use more and more ICT facilities and students present their seminars and periodic project progress reports through ICT facilities.

There are adequate budget provisions for the purchase, upgrading and maintenance of computers, servers, and other system-related equipment/items. All the computers of the institution are connected with LAN and the entire campus is Wi-Fi connected. The library system is controlled by Libsys Software. Students and faculty members can access the online library system from their nodes. Internal backbone network connectivity had been upgraded from STP to Fibre optics.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://nsec.ac.in/impdoc/aqar2023-24/431.pdf

4.3.2 - Number of Computers

1191

File Description	Documents
Upload any additional information	View File
List of Computers	View File

4.3.3 - Bandwidth of internet connection in the Institution

A. ? 50MBPS

File Description	Documents
Upload any additional Information	View File
Details of available bandwidth of internet connection in the Institution	View File

4.4 - Maintenance of Campus Infrastructure

4.4.1 - Expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the year (INR in Lakhs)

4.4.1.1 - Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component during the year (INR in lakhs)

149.58

File Description	Documents
Upload any additional information	No File Uploaded
Audited statements of accounts	View File
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	View File

4.4.2 - There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

The administrative officer oversees the maintenance and proper utilization of the institute's infrastructural facilities, including classrooms and other areas. Maintenance is primarily conducted by trained in-house experts, with some tasks outsourced to external agencies. Equipment and furniture are procured through a central purchase committee, while computers and software are upgraded according to departmental needs and market relevance.

All laboratory equipment, computers, and teaching tools, such as projectors, laptops, and microphones, located in the departments are managed by the Head of Department (HOD). Stock registers are maintained to track procurement and other details, including location. For repairs, the HOD is authorized to contact the supplier or service center and place an order after obtaining approval from the appropriate authority. The departmental and central libraries are maintained by the librarian.

Sports equipment is replaced based on recommendations from the Faculty Coordinator of Sports and Games, while the playground is maintained under the FIC's direction. The Campus Administrator manages student common rooms and general-purpose infrastructure. Central facilities fall under the direct oversight of the Principal, who ensures their effective utilization and functioning with assistance from relevant committees. This structured approach guarantees the optimal maintenance and use of all educational resources within the institute.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	www.nsec.ac.in/page.php?id=517

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

5.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

5.1.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

767

File Description	Documents
Upload self attested letter with the list of students sanctioned scholarship	View File
Upload any additional information	View File
Number of students benefited by scholarships and free ships provided by the Government during the year (Data Template)	View File

5.1.2 - Number of students benefitted by scholarships, free ships etc. provided by the institution / non- government agencies during the year

5.1.2.1 - Total number of students benefited by scholarships, free ships, etc provided by the institution / non- government agencies during the year

59

File Description	Documents
Upload any additional information	View File
Number of students benefited by scholarships and free ships institution / non- government agencies in last 5 years (Date Template)	View File

5.1.3 - Capacity building and skills enhancement initiatives taken by the institution include the following: Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) ICT/computing skills

A. All of the above

File Description	Documents
Link to Institutional website	https://www.nsec.ac.in/impdoc/5.1.3_3_soft_skills.pdf
Any additional information	View File
Details of capability building and skills enhancement initiatives (Data Template)	View File

5.1.4 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

1066

5.1.4.1 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

1066

File Description	Documents
Any additional information	View File
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	View File

5.1.5 - The Institution has a transparent

A. All of the above

mechanism for timely redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organization wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

File Description	Documents
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View File
Upload any additional information	View File
Details of student grievances including sexual harassment and ragging cases	View File

5.2 - Student Progression

5.2.1 - Number of placement of outgoing students during the year

5.2.1.1 - Number of outgoing students placed during the year

537

File Description	Documents
Self-attested list of students placed	View File
Upload any additional information	View File
Details of student placement during the year (Data Template)	View File

5.2.2 - Number of students progressing to higher education during the year

5.2.2.1 - Number of outgoing student progression to higher education

17

File Description	Documents
Upload supporting data for student/alumni	View File
Any additional information	No File Uploaded
Details of student progression to higher education	View File

5.2.3 - Number of students qualifying in state/national/ international level examinations during the year (eg: JAM/CLAT/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations)

5.2.3.1 - Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations) during the year

13

File Description	Documents
Upload supporting data for the same	View File
Any additional information	No File Uploaded
Number of students qualifying in state/ national/ international level examinations during the year (Data Template)	View File

5.3 - Student Participation and Activities

5.3.1 - Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) during the year

5.3.1.1 - Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national / international level (award for a team event should be counted as one) during the year.

21

File Description	Documents
e-copies of award letters and certificates	View File
Any additional information	View File
Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national/international level (During the year) (Data Template)	View File

5.3.2 - Institution facilitates students' representation and engagement in various administrative, co-curricular and extracurricular activities (student council/ students representation on various bodies as per established processes and norms)

At our college, students are integral to all activities, providing essential input for management decisions. The institution actively supports student involvement, allowing them to take on responsibilities for organizing various events. This engagement fosters leadership and organizational skills through well-established student bodies and strong representation in academic and administrative committees.

Under the guidance of faculty, these student bodies coordinate a range of co-curricular and extracurricular activities, offering students opportunities to express their ideas and build confidence. Activities include club events, workshops, and intra-domain competitions, all of which enhance vital skills like communication, teamwork, time management, and resource management.

Key student councils include the Technical Club-Phoenix, Eco Cultural Club, Literacy Club, Lensified Club, Sports and Games Club, IEEE Students Branch Chapters, Google Developers Students Club, GNX Society, CodeChef Campus Chapter, NSS Unit, NCC and CSR Club.

Moreover, students represent their peers in various institutional bodies, such as the Internal Quality Assurance Cell, Library Committee, Placement & Training Committee, Career Development Council, Institution's Innovation Council (IIC), Entrepreneurship Development Cell (EDC), Internal Complaint Committee, and Anti-Ragging Committee. This collaborative environment ensures that student voices influence key decisions and enrich their educational experience.

File Description	Documents
Paste link for additional information	https://nsec.ac.in/impdoc/agar2023-24/532.pdf
Upload any additional information	View File

5.3.3 - Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions)

5.3.3.1 - Number of sports and cultural events/competitions in which students of the Institution participated during the year

44

File Description	Documents
Report of the event	View File
Upload any additional information	View File
Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions) (Data Template)	View File

5.4 - Alumni Engagement

5.4.1 - There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

The Netaji Subhash Engineering College Alumni Association (NSECAA), established in 2008, plays a vital role in the institution's development through financial and support services. Our alumni are key stakeholders, many of whom have achieved significant success in their careers, higher education, and entrepreneurship. The association is dedicated to charitable, educational, and literacy initiatives, reflecting the institution's pride in its graduates.

Annual Alumni Meets are held on January 23rd, aligning with the College Foundation Day, where alumni engage with current students, sharing their experiences and insights to inspire future generations. Each department organizes reunions under the NSECAA, strengthening connections between alumni and students. Alumni

contribute significantly and funds are utilized effectively for the development of students.

Alumni contribute in various ways, including:

- Sharing success stories and accomplishments with students.
- Delivering motivational lectures and guidance.
- Offering suggestions to modernize facilities to meet industry standards.
- Facilitating industrial training and field visits.
- Supporting placement initiatives, internships, and industry connections.
- Providing financial assistance for pre-placement training.
- Collaborating with academia and industry through MOUs.
- Enhancing community relationships among alumni.
- Offering feedback for academic reforms.
- Contributing to professional development as members of the Internal Quality Assurance Cell (IQAC).

These efforts significantly enrich the institution and its community.

File Description	Documents
Paste link for additional information	https://nsec.ac.in/impdoc/aqar2023-24/541.pdf
Upload any additional information	View File

5.4.2 - Alumni contribution during the year (INR in Lakhs)

E. <1Lakhs

File Description	Documents
Upload any additional information	View File

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

6.1.1 - The governance of the institution is reflective of and in tune with the vision and mission of the institution

The governance of the institution aligns closely with its vision and mission, emphasizing excellence in engineering, technological education, research, and entrepreneurship. The Board of Governors

(BOG) serves as the supreme authority for all academic, administrative, and financial matters, recognizing faculty as the backbone of the institution. The BOG leads policy development and provides essential support to faculty for implementation, primarily acting as a facilitator. Rather than imposing micro-level control, the BOG encourages faculty autonomy in decision-making and implementation, fostering a strong academic foundation.

The policies established by the BOG reflect the institution's commitment to serving society and achieving educational excellence. These policies are further detailed in the perspective plans, which outline a four-stage mission to reach the institution's goals. The plans are designed to be achievable by faculty members with minimal oversight from the BOG and management.

In this bottom-up approach to governance, the institution prioritizes a faculty-centric model where educators are empowered to make decisions regarding academic issues. This structure not only enhances participation in decision-making bodies but also ensures that governance remains in tune with the institution's overarching vision and mission, creating an environment conducive to academic and professional growth.

File Description	Documents
Paste link for additional information	https://nsec.ac.in/impdoc/agar2023-24/611.pdf
Upload any additional information	View File

6.1.2 - The effective leadership is visible in various institutional practices such as decentralization and participative management.

The institute adopts a bottom-up approach that promotes decentralized and participative management. This philosophy emphasizes that issues should be resolved at their source by those directly involved, escalating matters only when they cannot be addressed or require additional resources. This approach begins with the pedagogical management of departmental programs and associated resources, guided collaboratively by the Heads of Departments (HODs), Deans, and the Principal.

The Board of Governors (BOG) empowers various committees, led by the Principal or Dean-Academic Affairs, to oversee academic and administrative matters involving students. These committees

primarily consist of faculty members, ensuring that decisions are grounded in direct experience and expertise. The decisions made by these committees are final, with the BOG serving as the ultimate authority in case of disputes.

For BOG committees, one professor and one assistant professor are nominated, further integrating faculty involvement in governance. As the apex body, the BOG addresses all academic, administrative, and financial issues. In alignment with the decentralization policy, academic matters are managed by the Academic Committee (AC), while the Internal Quality Assurance Cell (IQAC) monitors academic policies and quality initiatives. This structure fosters a collaborative and responsive institutional environment, empowering faculty and enhancing decision-making processes.

File Description	Documents
Paste link for additional information	https://nsec.ac.in/images/all-committees-2023.pdf
Upload any additional information	View File

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ perspective plan is effectively deployed

The institution's strategic plan emphasizes the "Pursuit of Excellence in Education" as a key focus. One notable activity that exemplifies this commitment is the establishment of industry collaborations through Memorandum of Understanding (MoUs) with various organizations. Recognizing the need for training beyond the curriculum to ensure industry readiness, the institute has partnered with several leading organizations to enhance student skills and employability.

Some key collaborations include:

NASSCOM: This partnership provides training on the latest technologies, with several workshops already conducted to equip students with relevant skills.

Great Learning: This agreement focuses on training in emerging technologies and extends support for the placement process, helping students transition smoothly into the workforce.

GTT Foundation: This collaboration offers training in group

discussions, interview skills, and mock personal interviews, with sessions already organized for final-year students.

TCS: This partnership introduced a specialized B.Tech program in Computer Science & Business Systems (CSBS), with a curriculum designed in alignment with IT industry needs. TCS also conducts faculty development programs to ensure educators are equipped with current industry knowledge.

NIELIT: Certification courses on Blockchain Technology.

These initiatives demonstrate the institution's dedication to integrating academic learning with industry standards, fostering a comprehensive educational environment.

File Description	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	https://nsec.ac.in/impdoc/agar2023-24/621.pdf
Upload any additional information	View File

6.2.2 - The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, etc.

The institution's organogram reflects a structured and efficient governance system, led by the Board of Governors (BOG), the highest authority with representatives nominated by the Society. The BOG is responsible for the overall governance of the institute, including framing policies, service rules, budget approvals, and appointment processes.

The administrative setup, established by the BOG, includes several key positions to ensure smooth academic and administrative operations:

Principal: The head of the institution, responsible for administration and all academic programs. The Principal is supported by the Dean and Heads of Departments.

Dean-Academic Affairs: Overseeing research and development activities while managing all academic affairs within the institution.

Administrative Officer: Handles administrative functions, ensuring efficient management of daily operations.

Student Welfare Officer: Coordinates co-curricular and extracurricular activities, focusing on student well-being.

IIC Coordinator: Manage and promotes Entrepreneurship, Start-up, IPR and Innovation initiatives.

Campus Administrator: Oversees the college in close coordination with the Governing Body and Head of the Institution.

Additionally, various statutory bodies, including the Internal Quality Assurance Cell, Academic Committee, Finance Committee, Purchase Committee, Internal Complaint Committee, Anti-Ragging Committee, and Grievance Redressal Committee, ensure robust faculty representation and facilitate effective governance and smooth conduct of academic and administrative activities.

File Description	Documents
Paste link for additional information	https://nsec.ac.in/images/all-committees-2023.pdf
Link to Organogram of the institution webpage	https://nsec.ac.in/page.php?id=99
Upload any additional information	View File

6.2.3 - Implementation of e-governance in areas of operation Administration Finance and Accounts Student Admission and Support Examination

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning) Document	View File
Screen shots of user inter faces	View File
Any additional information	View File
Details of implementation of e-governance in areas of operation, Administration etc(Data Template)	View File

6.3 - Faculty Empowerment Strategies

6.3.1 - The institution has effective welfare measures for teaching and non-teaching staff

The institution offers a range of effective welfare measures for both teaching and non-teaching staff, ensuring their well-being and professional development. Key welfare schemes include:

Cooperative Society: Netaji Subhash Engineering College Employees Cooperative Credit Society Ltd. has been established to provide financial assistance to its members through lending facilities.

Medical Facilities: Employees receive free treatment at the institute's Medical Unit during working days, along with complimentary ambulance services for themselves and their families from home.

Children's Education: Employees benefit from educational concessions for their children attending the TIG Model School and Engineering Colleges.

Study Leave: Regular faculty members are granted leave without pay to pursue further education and enhance their qualifications.

Employee Benefits: Eligible employees are covered under the Employee Provident Fund (EPF) scheme and the Employees' State Insurance (ESI) Act, providing financial security.

Group Insurance Scheme: Employees with salary accounts at Axis Bank Ltd. are enrolled in the TATA AIG group medicare program.

Career Development Support: Institution allows teaching load concessions and special leaves for staff pursuing higher studies, research, or professional development opportunities. Technical staff are also encouraged to upgrade their qualifications.

These initiatives foster a supportive work environment and contribute to the overall growth of the staff.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/impdoc/631_%20Effective%20welfare.pdf
Upload any additional information	View File

6.3.2 - Number of teachers provided with financial support to attend conferences/ workshops and towards membership fee of professional bodies during the year**6.3.2.1 - Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the year**

16

File Description	Documents
Upload any additional information	View File
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	View File

6.3.3 - Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year**6.3.3.1 - Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff during the year**

1

File Description	Documents
Reports of the Human Resource Development Centres (UGCASC or other relevant centres).	No File Uploaded
Reports of Academic Staff College or similar centers	No File Uploaded
Upload any additional information	View File
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	View File

6.3.4 - Number of teachers undergoing online/face-to-face Faculty development Programmes (FDP) during the year (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course etc.)**6.3.4.1 - Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course during the year**

56

File Description	Documents
IQAC report summary	View File
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	View File
Upload any additional information	View File
Details of teachers attending professional development programmes during the year (Data Template)	View File

6.3.5 - Institutions Performance Appraisal System for teaching and non- teaching staff

The institution's Performance Appraisal System for teaching and non-teaching staff is a structured process essential for service confirmation and promotions. The system relies on the Annual Performance Review (APR) conducted by the Principal, and Heads of Departments, followed by a personal appraisal carried out by the Appraisal Committee. This well-formulated mechanism ensures a thorough evaluation of both teaching and non-teaching staff.

Employees seeking promotion must complete a Self-Appraisal Form (SAF), which includes personal details, qualifications, a detailed job description, and documented achievements. For faculty members, the SAF highlights academic up-gradation, re-skilling and up-skilling, professional memberships, research contributions, publications, IPR activities and technological advancements. Non-teaching staff focus on job-related proficiency, commendable services, and contributions.

Regular employees are eligible for promotion, while contractual staff may receive increments based on successful performance assessments by the Appraisal Committee. The validity of the SAF is typically one year, and a poor or unsatisfactory rating in any of the last three APRs disqualifies an employee from promotion unless they achieve two excellent ratings, one of which must be from the most recent APR. This comprehensive system fosters accountability and encourages professional development within the institution.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/impdoc/635.pdf
Upload any additional information	View File

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly Enumerate the various internal and external financial audits carried out during the year with the mechanism for settling audit objections within a maximum of 200 words

The institute conducts regular internal and external financial audits to ensure transparency and compliance with government regulations.

Internal Audit:

The internal audit team comprises a qualified auditor from the Corporate Office, the Institute Accountant, and an Office Assistant from the accounts section. The accounts section provides all necessary records, including income-expenditure vouchers, approval documents, and budgets. The internal auditor thoroughly checks supporting documents such as fee receipts and payment vouchers for each financial year, ensuring all payments are authorized. A statutory audit report is prepared and submitted to the college management for review.

External Audit:

An external audit is conducted annually by a chartered accountant appointed by the Board of Trustees. After the internal audit, the accounts are submitted to the corporate office for review. The external auditor examines the institute's accounts as part of the society's financial statements, with the institute accountant present during the process.

Any audit objections raised during either audit are documented and communicated to the relevant departments. The institute establishes a review committee to address these objections, implementing corrective actions and ensuring compliance within a specified timeframe. This transparent process fosters accountability and continuous improvement in financial management.

File Description	Documents
Paste link for additional information	https://nsec.ac.in/impdoc/agar2023-24/641.pdf
Upload any additional information	View File

6.4.2 - Funds / Grants received from non-government bodies, individuals, philanthropers during the year (not covered in Criterion III)

6.4.2.1 - Total Grants received from non-government bodies, individuals, Philanthropers during the year (INR in Lakhs)

0

File Description	Documents
Annual statements of accounts	No File Uploaded
Any additional information	No File Uploaded
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the year (Data Template)	View File

6.4.3 - Institutional strategies for mobilization of funds and the optimal utilization of resources

The institution implements a comprehensive resource mobilization policy to ensure financial sustainability and optimal utilization of resources. As a self-financing educational institute, the primary revenue source is tuition fees from students, including semester fees and additional charges for professional skills training, soft skills development, and industrial training programs.

Strategies for Fund Mobilization:

Tuition Fees: Collected for core teaching-learning activities.

Add-On Fees: For specialized training programs enhancing student employability.

Grants: Sought from government and non-government organizations for seminars and conferences, research, consultancy, and faculty development initiatives.

Endowments: Established for scholarships and awards to encourage academic excellence.

Donations: Received from alumni, employers, and stakeholders for specific projects.

Other Revenue: Generated from fines and deductions of caution money for equipment or infrastructure replacements.

Rental Income: Collected from recruiting agencies, conducting competitive examinations, and from commercial organizations on campus, such as banks and food courts.

Optimal Utilization of Resources: The institution maximizes resource efficiency through shared infrastructure, including laboratories and classrooms, adhering to regulatory guidelines. Departments collaborate to utilize resources effectively, and external professional bodies are engaged to use facilities during holidays, further enhancing resource optimization. This strategic approach supports the institution's financial health while promoting academic excellence.

File Description	Documents
Paste link for additional information	https://nsec.ac.in/impdoc/aqar2023-24/641.pdf
Upload any additional information	View File

6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

The Internal Quality Assurance Cell (IQAC) has introduced and implemented several strategic initiatives aimed at boosting academic excellence and fostering institutional growth.

- Outcome-Based Education (OBE) is strictly followed across all departments, with Course Outcomes (COs), Program Outcomes (POs), and Program-Specific Outcomes (PSOs) assessed through internal evaluations and university results, ensuring continuous improvements in learning outcomes.
- ICT-Based Education has been adopted to enhance content delivery, encourage interactive learning, and increase student engagement.

- Teaching-Learning Monitoring System ensures adherence to innovative pedagogies, timely evaluations, and systematic analysis of student feedback for ongoing improvements.
- Student Development Programs provide aptitude tests, soft skills training, and personality development initiatives, improving employability.
- Infrastructure Upgradation focuses on securing funds to meet the growing academic and administrative needs of the institution.
- Innovation and Entrepreneurship initiatives, IIC and EDC-NSEC foster a culture of innovation through workshops, hackathons, and competitions.
- Incubation Center and IPR Cell support product development, mentoring, startup registration, and patent filing.
- NEP preparedness is being gradually implemented through multidisciplinary approaches, the ABC model, skill development programs, and online education.
- NBA and NAAC Accreditation of programs and institution.

These efforts have led to significant improvements in academic quality, institutional practices, and student development.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/page.php?id=574
Upload any additional information	View File

6.5.2 - The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

The IQAC conducts periodic reviews of the teaching-learning process by analyzing feedback from stakeholders and assessing learning outcomes based on the attainment of Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSOs). This leads to incremental improvements in various areas, including:

Effective Use of ICT in Teaching-Learning:

Most classrooms and laboratories are equipped with advanced ICT facilities, including LAN and Wi-Fi access. The institution has established audio-visual facilities and utilizes Google Workspace for collaboration and communication. Additionally, Virtual Lab facilities, simulation software, and live demonstrations of

experiments enhance the learning experience, enabling students to engage with course material in innovative ways.

Enriching Induction Program:

The induction program is meticulously designed to support new students through a comprehensive orientation. It includes industry outreach talks by experts, alumni sessions, motivational workshops, and a General Proficiency Test for diagnostic assessment. Students participate in a Boot Camp focusing on soft skills, alongside a bridge course in Physics and Mathematics. An entrepreneurship development program by the Wadhvani Foundation further enriches the curriculum. Students are also informed about university affairs, Massive Open Online Courses (MOOCs), and additional requirements for earning a B. Tech with Honours degree from MAKAUT, fostering a well-rounded educational experience.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/page.php?id=574
Upload any additional information	View File

6.5.3 - Quality assurance initiatives of the institution include: Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analyzed and used for improvements Collaborative quality initiatives with other institution(s) Participation in NIRF any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

A. All of the above

File Description	Documents
Paste web link of Annual reports of Institution	https://nsec.ac.in/impdoc/agar2023-24/653.pdf
Upload e-copies of the accreditations and certifications	View File
Upload any additional information	View File
Upload details of Quality assurance initiatives of the institution (Data Template)	View File

INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

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

The institution is committed to promoting gender equity and sensitization in both curricular and co-curricular activities. Admission is based solely on merit, ensuring equal opportunities for all students, regardless of gender. To foster awareness, gender sensitization programs are integrated into the orientation and induction sessions for new students. These sessions are facilitated by faculty, along with a dedicated female psychologist who offers counseling and guidance.

The curriculum addresses social issues such as relationships and gender discrimination through courses in the English and Language Laboratory. The Women's Grievance Cell is actively involved in addressing specific concerns related to female students. Additionally, the institution collaborates with Gender Benders, a social group, to organize workshops and seminars that promote gender equity.

To support women on campus, the institution provides various facilities, including comprehensive safety measures and counseling services through a trained psychologist. Well-furnished common rooms are available for female students. The institution actively promotes female representation by involving women in nearly all functioning committees. Additionally, a mass awareness program is organized each year on International Women's Day, underscoring the institution's commitment to gender equity and creating an inclusive environment for all students.

File Description	Documents
Annual gender sensitization action plan	https://nsec.ac.in/impdoc/agar2023-24/7111.pdf
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information	https://nsec.ac.in/impdoc/agar2023-24/7112.pdf

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation measures Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/ power efficient equipment

B. Any 3 of the above

File Description	Documents
Geo tagged Photographs	View File
Any other relevant information	View File

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management

The institution is committed to minimizing waste generation through efficient practices and resource conservation. To minimize environmental impact, the college implements strategies for minimal waste production and uses hoardings to promote resource efficiency. The following waste management measures are in place:

Solid Waste Management: Waste is segregated using color-coded bins: green for biodegradable waste, blue for non-biodegradable, and red for specific laboratory waste. Disposal is conducted by local civic authorities, ensuring proper handling of each waste type.

Liquid Waste Management: Sewage and effluents from the canteen are directed through a standard sanitary system. Laboratory liquid waste, especially from Chemistry and environmental labs, is treated with special care to prevent contamination.

E-Waste Management: The institution generates e-waste from equipment

such as computers, phones, and printers. Efforts are made to recycle components, and spare parts from old machines are repurposed. E-waste that cannot be reused is stored in a designated safe area and disposed of through authorized scrap dealers.

Hazardous Waste Management: The institution does not generate hazardous, biomedical, or radioactive waste, further minimizing environmental impact. Overall, these strategies reflect a commitment to sustainable waste management practices, safeguarding both the environment and community health.

File Description	Documents
Relevant documents like agreements / MoUs with Government and other approved agencies	View File
Geo tagged photographs of the facilities	View File

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	View File
Any other relevant information	View File

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for greening the campus are as follows:

- 1. Restricted entry of automobiles**
- 2. Use of bicycles/ Battery-powered vehicles**
- 3. Pedestrian-friendly pathways**
- 4. Ban on use of plastic**
- 5. Landscaping**

B. Any 3 of the above

File Description	Documents
Geo tagged photos / videos of the facilities	View File
Various policy documents / decisions circulated for implementation	View File
Any other relevant documents	View File

7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution

7.1.6.1 - The institutional environment and energy initiatives are confirmed through the following 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities	C. Any 2 of the above
--	------------------------------

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	View File
Certification by the auditing agency	View File
Certificates of the awards received	View File
Any other relevant information	View File

7.1.7 - The Institution has disabled-friendly, barrier free environment Built environment with ramps/lifts for easy access to classrooms. Disabled-friendly washrooms Signage including tactile path, lights, display boards and signposts Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment 5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading	A. Any 4 or all of the above
---	-------------------------------------

File Description	Documents
Geo tagged photographs / videos of the facilities	View File
Policy documents and information brochures on the support to be provided	View File
Details of the Software procured for providing the assistance	No File Uploaded
Any other relevant information	View File

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 200 words).

The institution fosters an inclusive environment that embraces cultural, regional, linguistic, communal, and socioeconomic diversity, ensuring no discrimination based on religion, caste, gender, or economic status. Admissions are based strictly on merit, emphasizing equality from the outset. Values of tolerance and harmony are reinforced during the First-year induction program and through regular awareness campaigns. Posters promoting gender equity and behavioral improvement are displayed throughout the campus.

Cultural and regional festivals are celebrated to enhance students' understanding of diversity and to encourage a spirit of community. The institution promotes all-round development through mentoring, guidance, and participation in various activities such as NSS, NCC, CSR community services, Hackathon and Tech Fest. The institution's diverse student population enriches the experience, allowing clubs like the sports and games photography club and literacy club to organize events that foster friendships and collaborative spirit among students from different backgrounds.

Celebrations such as International Women's Day and Yoga Day further promote inclusivity and respect. The college has established an Anti-Ragging Cell to address related issues and a two-tier disciplinary committee to manage serious misconduct. An Anti-Sexual Harassment Cell, chaired by a female faculty member, oversees cases of discrimination, ensuring a safe and supportive atmosphere for all students.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View File
Any other relevant information	View File

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

The institution prioritizes sensitizing students and employees to their constitutional obligations by implementing various initiatives that emphasize values, rights, duties, and responsibilities of citizens. The process begins with clearly defined rules and regulations, approved by the Board of Governors, which apply to everyone, regardless of gender, creed, or culture. A Grievance Redressal Cell addresses any violations, while the Right to Information Cell ensures transparency.

For employees, awareness of their rights and responsibilities is well-established. However, students, who are still developing their understanding, benefit significantly from awareness programs that begin with the Induction program, where they learn about their civic values. This education continues in the classroom, with a compulsory course on the Constitution of India included in the curriculum.

The institution actively celebrates significant national events such as Independence Day, Republic Day, Netaji Birthday, Gandhi Jayanti, and Constitution Day, reinforcing the importance of freedom and honoring Indian freedom fighters. Additional activities, such as Blood Donation Camps, Women's Day celebrations, and World Environment Day events, further cultivate a sense of social responsibility and environmental awareness among students, preparing them to be informed and responsible citizens.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	https://nsec.ac.in/impdoc/aqar2023-24/7191.pdf
Any other relevant information	https://nsec.ac.in/impdoc/aqar2023-24/7192.pdf

<p>7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff 4. Annual awareness programmes on Code of Conduct are organized</p>	<p>A. All of the above</p>
--	-----------------------------------

File Description	Documents
Code of ethics policy document	View File
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View File
Any other relevant information	View File

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

The institution actively celebrates a variety of national and international commemorative days, events, and festivals throughout the year, fostering a vibrant campus culture. Major festivals such as Holi, Bengali New Year, Rabindra Jayanti and Dussera (Bijoya Dasami) are celebrated, reflecting the rich diversity of the student body.

The college commemorates the significant event of Netaji Subhash Chandra Bose's birth anniversary, which aligns with the college's Foundation Day. This occasion includes a flag hoisting ceremony and a march-past by the college's security personnel, highlighting the patriotic spirit of the day. The event features a cultural program and an awards ceremony to honor the achievements of students, faculty, and staff. Additionally, Republic Day and Independence Day are celebrated with great dignity and respect.

Students actively participate in organizing competitions and cultural events through various clubs, with "Avenir," the tech fest, being the highlight that showcases their creative talents on a

larger platform. International Women's Day is marked with enthusiasm, featuring poster displays and discussions focused on gender parity. Additionally, the college celebrates Teachers' Day, Environment Day, Earth Day, World Water Day, National Science Day, Innovation Day, and Engineers' Day, ensuring a well-rounded approach to awareness and celebration.

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	View File
Geo tagged photographs of some of the events	View File
Any other relevant information	View File

7.2 - Best Practices

7.2.1 - Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

1. Title of the Practice

Best Practice 1: Employability Enhancement Programmes

2. Objectives of the Practice

The institution offers skill-based training programs to enhance technical and soft skills, industry insights, and an entrepreneurial mindset among students.

3. The Context

Employability Enhancement Programs at the college aim to equip students with essential skills and knowledge, bridging the gap between academic learning and real-world application to meet job market demands.

4. The Practice

The college introduces various beyond-curriculum programs for re-skilling and up-skilling students, including soft skills, competitive coding, and aptitude training. Key initiatives feature Value Added Training each semester, technical webinars, Google Developer Students Club activities, IIC & EDC activities, Academic Interface Programs, and industry MoUs for training and internships.

5. Evidence of Success

The college facilitated 85 internships, 26 fieldwork experiences, and 146 industry visits. Students achieved 125 Blockchain certifications from NIELIT, 275 in cloud computing from Google Asia, and 35 enrolled in a Japanese language program with Accenture, resulting in 237 placements.

6. Problems Encountered and Resources Required

Challenges faced include limited industry exposure, inadequate training resources, and evolving skill demands. To address these issues, additional funding, partnerships with industries, and enhanced training programs are essential for student success.

File Description	Documents
Best practices in the Institutional website	https://www.nsec.ac.in/page.php?id=612
Any other relevant information	https://nsec.ac.in/impdoc/aqar2023-24/721.pdf

7.3 - Institutional Distinctiveness

7.3.1 - Portray the performance of the Institution in one area distinctive to its priority and thrust within 200 words

This premier self-financed technological institute is renowned for its academic excellence and innovative approach. Accredited by NAAC and NBA for four programs, it ranks in the NIRF 2020 (251-300) and ARIIA 2021 (26-50) bands. It also has partnerships with leading companies like TCS, Wipro, and Capgemini.

The NSEC-NPTEL Local Chapter consistently ranks among the Top 100 Colleges in India, while the Institution's Innovation Council (IIC-NSEC) has achieved a prestigious 5-star rating from the Ministry of Education's Innovation Cell. Additionally, the NSEC Business Incubator Centre (HI/BI) is recognized by MSME-DI for its support of entrepreneurial ventures.

The institution has excelled in competitions, notably achieving one team victory in the Smart India Hackathon (SIH-2023) and sweeping all three teams to victory in SIH-2024. An established IPR cell

facilitates patent filings, supported by a grant of 50,000. This year, five faculty members were awarded Ph.D. degrees, and 34 papers were published in UGC-notified journals, along with nine in peer-reviewed international journals, 36 book chapters, and 19 conference publications. Additionally, two patents were granted. The NSEC-Rotaract Club further enhances community outreach, while students continue to earn accolades in national and international competitions and Hackathon.

File Description	Documents
Appropriate web in the Institutional website	View File
Any other relevant information	View File

7.3.2 - Plan of action for the next academic year

To foster academic excellence, professional development, and research collaboration, the following plan of action will be implemented:

- **Innovative Teaching and Learning:** Implement new teaching methodologies, incorporate advanced tools and online collaborative platforms to enhance the learning experience.
- **Faculty Development Programs (FDPs):** Organize FDPs and encourage participation in emerging areas to enhance teaching skills.
- **Smart Teaching Tools:** Use of interactive tools for blended and hybrid teaching methods.
- **IEEE Student Branch Chapter:** Conduct workshops, seminars, technical events, and Hackathon to engage students.
- **Industrial Tours and Visits:** Organize industrial visits to provide hands-on exposure to real-world engineering challenges.
- **Industry-Academia Collaboration:** Facilitate guest lectures and workshops, assign real-world projects, and provide internship opportunities.
- **Research and Development:** Emphasize on quality research, paper publications, Ph.D work, sponsored research, consultancy projects and explore patent opportunities to support innovation.
- **Skill Development Initiatives:** Introduce industry-recognized certification programs along with soft skills and communication training.
- **Technical Events:** Organize and encourage participation in seminars, workshops, boot camps, coding competitions,

entrepreneurship initiatives, and Hackathon.

- **Social Outreach Program:** Engage with the underprivileged sections of society
- **Workshop on Innovation and Business Development:** Conduct workshops to foster innovation, start-up, prototype and entrepreneurship skills.
- **Alumni Involvement:** Involve alumni in curricular delivery, project work, and internship opportunities.
- **Implementation of NEP 2020:** Facilitates holistic education reforms, fostering inclusive and flexible learning environments.
- **Institutional Autonomy:** Empowers institutions to innovate and tailor programs to meet specific needs and challenges.
- **Accreditation of Programs:** Ensures quality assurance, enhances credibility, and supports the accreditation of additional programs to broaden educational offerings.