



YEARLY STATUS REPORT - 2020-2021

Part A

Data of the Institution

1.Name of the Institution		Netaji Subhash Engineering College
• Name of the Head of the institution		Prof. (Dr.) Tirthankar Datta
• Designation		Principal
• Does the institution function from its own campus?		Yes
• Phone no./Alternate phone no.		03324364929
• Mobile no		9830422806
• 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 University of Technology				
• Name of the IQAC Coordinator	Prof. (Dr.) Sukumar Roy				
• Phone No.	03324364929				
• Alternate phone No.	03324361285				
• Mobile	9433408287				
• IQAC e-mail address	coordinator.iqac@nsec.ac.in				
• Alternate Email address	sroybme@gmail.com				
3.Website address (Web link of the AQAR (Previous Academic Year))	https://www.nsec.ac.in/impdoc/aqar2019-20/AQAR_2nd%20Cycle%20Report_2019-2020.pdf				
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/circular/Academic_Calendar_2020-2021.pdf				
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	
Netaji Subhash Engineering College (NSEC)	TEQIP-I	World Bank	2005, 1460 Days	747.8 Lakhs	
Dr. P.P.Bhat	RPS	AICTE	2006, 730	2.0 Lakhs	

tacharya, ECE, NSEC			Days	
Dr. P.P.Bhat tacharya, ECE,NSEC	Fast track career young scientist scheme	SERC, DST	2008, 1095 Days	5.82 Lakhs
Dr. Sudipta Nath, EE, NSEC	Young Scientist	DST	2008, 1095 Days	3.0 Lakhs
Dr. Sudipta Nath, EE, NSEC	Career Award	AICTE	2009, 1095 Days	10.5 Lakhs
Dr. Sukumar Roy, BME, NSEC	RPS	DST, WB	2012, 1095 Days	5.33 Lakhs
Electronics & Communicatio n Engineering Dept., NSEC	MODROBS	AICTE	2017, 730 Days	9.6 Lakhs
Biomedical Engineering Dept., NSEC	MODROBS	AICTE	2017, 730 Days	3.6 Lakhs
Dr. Swapna Roy, EE, NSEC	Seminar Grant	AICTE	2017, 3 Days	1.0 Lakh
Electrical Engineering Dept., NSEC	MODROBS	AICTE	2019, 730 Days	14.75 Lakhs
Netaji Subhash Engineering College	UBA	MHRD	2020, 365 Days	0.5 Lakh
Netaji Subhash Engineering College	MoE Innovation Cell	Govt. of India	2021, 365 Days	2.0 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	3	
<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? 	No	
<ul style="list-style-type: none"> • If No, please upload the minutes of the meeting(s) and Action Taken Report 	View File	
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)		
<p>? 1st International Conference: IEEE International Conference for Convergence in Engineering in association with IEEE Kolkata Section, IEEE PES, IEEE COM SOC was organized during this pandemic period from 5th- 6th September, 2021 in virtual platform. ? Accomplishment in Research, IPR & Innovation Activities: Number of paper published by faculty members: 82 and with students: 12. Number of patent published by faculty: 05 and number patent filed by faculty and students: 03. Students of ECE department received a funding of Rs. 2 lakhs in the National Innovation Contest 2020 organized by MoE's Innovation Cell, Govt. of India for further development of their innovation "Energy Saver". ? Mentor Institute by MoE's Innovation Cell: NSEC has been selected as Mentor Institution under Mentor Mentee Programme 2021-22 by MoE's Innovation Cell, Govt. of India in association with AICTE & IIC. ? Collaboration / MOU with different organizations: During this period, Netaji Subhash Engineering College signed MOUs with different top-notch organizations for various purposes. Also some of its departments signed MOU with different Universities/ Institutes for academic collaborative research etc. ? Accomplishment in GATE Exam & NPTEL Chapter: Students of NSEC of batch 2021 ranked top in GATE examination and</p>		

couple of them are pursuing M. Tech in IITs & NITs as well. Two students were within 100 ranks in GATE. Mayukh Das of ME department received both NPTEL EVANGELIST and NPTEL Motivated Learner award in 2020 for taking highest 18 courses in one session.

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
International Conference for Convergence in Engineering	IEEE International Conference in Convergence of Engineering: ICCE-2020 organized by IEEE PES Chapter Kolkata Section in association with Netaji Subhash Engineering College during 5th-6th September 2020 through virtual Platform AIRMEET. A total 52 sessions include 7 Key-note addresses, 11 Plenary sessions, 8 Special sessions, 4 Workshop & Tutorial sessions, 2 Industry Panel Discussions, 1 Students' Panel Discussion, Inaugural session, Valedictory session, cultural session and 16 Interactive technical sessions organized concurrently.
Collaboration / MOU with different organizations	College signed MOU with different top-notch organizations and ECE department signed MOU with universities for academic collaborative research. 1. MOU with NASSCOM: Impart training on latest technologies and already, a couple of workshops were organized by NASSCOM. 2. MOU with Great Learning: Impart training on latest technologies and extend support for placement process. 3. MOU with GTT Foundation: Impart training on GD, interview skill enhancement and Mock PI. Already Mock Interview sessions organized for final year. 4. MOU

	<p>with TCS: TCS induced B.Tech Programme in Computer Science & Business Systems (CSBS). TCS has designed the syllabus in aligned to need of IT industry. 5. MOU between Department of ECE and A. K. Choudhury School of Information Technology, University of Calcutta: Training and research activities in the domain of IoT and Cyber Physical system.</p>
Research, publications and Patents	<p>A couple of R&D projects applied for seeking fund. Number of paper published in journals and conferences by faculty members: 42 and with students: 12. Number of patent published by faculty: 05 and number patent filed by faculty and students: 03.</p>
Innovative Projects under Institution Innovation Council (IIC) & Entrepreneurship Development Cell (EDC)	<p>Innovation Awards 2020: Damini Ghosh, Aditya Banerjee and Prantap Nag from the 3rd Year Electronics and Communication Engineering Department secured a funding of Rs. 2 lakhs in the National Innovation Contest 2020 organized by MoE's Innovation Cell, Govt. of India for their innovative product "Energy Saver". The basic prototype developed in the laboratory of the institute and the grant for further development of the product.</p>
Accomplishment of Institution Innovation Council (IIC)	<p>IIC-NSEC selected as Mentor Institution under Mentor Mentee Programme 2021-22 by MoE's Innovation Cell, Govt. of India in association with AICTE & IIC. NSEC-IIC received 5-Star rating in IIC2.0 during September 2020 & 3.5 Star IIC3.0 during December 2021 from Ministry of</p>

	Education's Innovation Cell, Govt. of India.
Accomplishment in Competitive Examination, Higher studies & NPTEL Local Chapter	A significant number of students of batch 2021 ranked in GATE examination and couple of them pursuing M. Tech in IITs & NITs as well. Notably, six students from Biomedical Engineering ranked in GATE and two are within 100 ranks. Mayukh Das of Mechanical Engineering department received both NPTEL EVANGELIST and NPTEL Motivated Learner award in 2020 for taking highest 18 courses in one session. NPTEL Local Chapter activities and continuing position in top 100 colleges Rating: A.
Digital Marketing and Admission	Promotional videos, alumni talks and all events uploaded in college website. Digital leaflets, tele-calling, sector-wise digital marketing in social media were done. All most all the departments have You-tube channels. The admission is excellent and is increased significantly in comparison to the last year.
Augmentation of existing facilities for e-learning	Majority of the classrooms equipped with computer, LCD, webcam, headphone, LAN, and Wi-Fi connectivity. Some laboratories equipped with virtual facilities and simulation software for live demonstration of experiments. Audio-video recording facilities created in each department. Licensed version of Zoom and G Suite used in digital teaching-learning.

IT Industry related training for enhancing employability skills of the students	Programming Proficiency Committee formed to impart special training and enhance capability of programming among all students. Several training rolled out in the programming platform of C, C++, Java, and Python, coding, cyber security, hacking by the resource persons from industry, professional training organization, Alumni and in-house faculty members.
Accomplishment of Faculty	Prof. Kaushik Dutta of ECE Department visited University of Central Florida, USA for his Post-Doctoral work in the field of research assignment of "Work on communication antennas for mobile phones". During his stay of 6 months, he finished the six research projects under the supervision of Prof. Prof. Raj Mitra and published 3 papers.
CSR through NSEC-Rotaract Club	Arranged "Sneher Porosh"-Blanket donation drive and "Annakut"-Ration distribution to Seba Old Age Home; organized "Guru Dakshina & Quuizatz:-Teacher's Day program and "Roshni"-participate and donate anything to the underprivileged; participated in "Eclectia 2020" and grabbed the Best Club Coordinator Awards".
Webinars/seminar/ workshops	Webinar on "Energy Efficiency In Smart Buildings Through IoT Sensor" speaker Prof. Bikash C Pal, Imperial College London, London, U.K. & "Dynamic Estimation And Control Of Power System" Speaker Prof. Sivaji Chakravorti, Director, NIT Calicut organized by PES Kolkata Chapter; Webinar on

	"Smart Grid in the 21st Century" by DEIS Kolkata Chapter, Speaker Prof. Akhtar Kalam, Victoria University, Australia.
Interactive Events with Psychiatrist and Career Councilor Online	On-line interactive sessions on "Pandemic Effect on Teenagers: How to deal with it
IEEE EDS Students Branch Chapter Activities Online	Webinar on "Emerging Trends in Device Engineering for Improved Performances
Special Lecture Sessions, Workshops and Seminars through Students Chapter Online	Distinguished Lecture on "Redesigning Physical Electronics" by Prof. Muhammad Mustafa Hussain, UC Berkeley and EECS, KAUST, Saudi Arabia; Two day workshop on "Introduction to Electronics and VLSI (with introduction to HDL using Verilog)" and Seminar on "Machine Learning for IoT Analytics
Code Chef Campus Chapter Activities Performed Online	Short Contest "Encoding November 2020", Encoding December 2020 and short contest (Jr) "Encoding Junior March 2021", "Encoding Junior June 2021"
Google Developer Student Clubs & GNX Society Activities Performed Online	Session on "Building Actions for Google Assistant in collaboration with six GDSCs across India" by Sachin Kumar, Founder Team Member and CTO of Tupelo Life, Head of GDG Doha and Session on "Building Solid Foundation for a thriving Tech Career" by Yemurayi Chinyande, Fintech Specialist and the Payments Manager at Cassava Smartech. GNX society webinar on "Deep Learning", "Development in IoT and Open Source Hardware" and "Linux Kernel Development".
The Official Tech Club - Phoenix	Phoenix conducted events viz.

Activities Online & Off-line	CodeVita Contest, Creativity, GIT- Learning Version Control, Code Live, Photowalk, Choosing a Tech field, Design hunt, REELS-O-MANIA, Nirmaan- Born original Dying original, Robotics Bootcamp, Getting Started with CP, Getting Started with Technical Content writing and Open mic by Literacy club- Eloquence.
IIC and EDC Initiatives and Activities Online	Workshop on "Entrepreneurship & Innovation as Career Opportunity" by Mr. Subhabrata Bhattacharya, Regional Manager of Wadhwani Foundation and "Cyber security & Ethical Hacking" collaboration with ISOEH, Organized workshop for IIB-ISRO-AICTE "NAPATHON", motivational session by Alumni Entrepreneur and Successful Innovator. Talk on "Innovation and Entrepreneurship Focus on Startup Development" by Dr. Prabir Mukhopadhyay, Former General Manager, West Bengal Financial Corporation, Govt. of West Bengal and "Technological Innovation" by Mr. Prodip Mukhopadhyay, Managing Director, Webel, Govt. of West Bengal.
Skill Enhancement Activities through Career Development Cell & Placement Cell	GATE Tutor program, Aptitude Skill and Soft Skill training by eminent experts, specially design tech oriented online courses in association with Great Learning, focused training by Accenture in association with NASSCOM, current industry demands program with EPAM and lot of webinars by eminent industry experts and alumni members.

National Education Policy, School Outreach Programs and Environment Activities Online	Organized discussion on "National Education Policy" by Dr. Buddha Chandrashekhar, School Connect Boot Camp on "Cyber Security and Ethical Hacking" and "Go Green Initiatives and Clean-Tech for the future - An Eco-friendly Lifestyle" by Mr. Digbijoy Chakraborty, CEO & Managing Director, SunEco Tech Ventures Pvt. Ltd.
Accomplishment and Product Development through IIC & EDC	One Project selected as Finalist in "Chatra Viswakarma Award 2021". Mr. Ujjal sengupta of ECE department developed and installed Ultrasound and PIR sensors based "Automatic Sanitization Tunnel" jointly with Mr. Saikat Paul of M/s Kalpana enterprise in close association and guidance from IIC & EDC.
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	28/12/2021
14. Whether institutional data submitted to AISHE	
Year	Date of Submission
2021	14/02/2022
Extended Profile	
1. Programme	
1.1	14

Number of courses offered by the institution across all programs during the year	
File Description	Documents
Data Template	View File
2.Student	
2.1	2739
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	788
Number of outgoing/ final year students during the year	
File Description	Documents
Data Template	View File
3.Academic	
3.1	172
Number of full time teachers during the year	
File Description	Documents
Data Template	View File
3.2	177
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	64
4.2 Total expenditure excluding salary during the year (INR in lakhs)	941.34345
4.3 Total number of computers on campus for academic purposes	1028

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

The curriculum delivery is one of the institutional strategic goals to create and maintain an environment for imparting knowledge, skills, concepts, processes, values and attitudes necessary for learners. Conscious and consistent efforts are put to bring about desirable changes in students' learning, abilities and behaviour. Institute prepare academic calendar in line with affiliated university. The course teacher prepare course file, familiarize the students with lesson plan, course objectives and outcomes at the onset of each semester. Lessons are delivered as per the routine followed by presentation with visual aid and teaching through smart techniques. Tutorial classes, laboratory experiments are conducted as per the routine and provide design based assignments and project works. Internal test, quizzes and group discussion are held at regular interval. Remedial classes for weaker students and special classes for brighter students are arranged. Soft skill, aptitude classes are accommodated in the time table. Value added training, industry visit and internship are provided to the students.

Institute formulate "Ready Reckoner" comprises of description of academic activities, target date, performers and reviewing / supervising / monitoring authority. Students' performances are

documented, results are analysed, and attainments are calculated. Teachers modify the lesson plan based on the students' feedback.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	https://www.nsec.ac.in/images/Academic-Activities-A-Ready-Reckoner.pdf

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

The institute prepares the academic calendar to ensure academic discipline and smooth conduction of the continuous internal evaluation process. For preparation of the detail academic schedule, the institute depends on the affiliated University calendar. The institute has also developed a structured format "Academic Activities: A Ready Reckoner" to all, lists out component wise academic activities to be performed during the odd and even semester program including time limit for each work, name of the person responsible and the supervising authority.

Four continuous assessments (CAs) for theory courses and two continuous assessments (PCAs) for laboratory courses are accommodated in the academic calendar for each semester. Normally, two unit tests are considered for any two continuous assessments and rest two from the assignments, quizzes, etc.

Internal Quality Assurance Cell (IQAC) continuously monitors and evaluates the internal evaluation mechanism and plays a pivotal role in enhancing the teaching-learning process by ensuring quality in all operations. The recommendations from various committees and from the management are accounted and subsequently corrective actions are undertaken. Based on the requirement, IQAC cell also formulate quality benchmark policies for improving quality in continuous internal evaluation and for proper implementation of outcome based education.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	https://www.nsec.ac.in/circular/Academic_Calendar_2020-2021.pdf

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.

A. All of the above

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

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

13

File Description	Documents
Any additional information	View File
Minutes of relevant Academic Council/ BOS meetings	No File Uploaded
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)

49

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

49

File Description	Documents
Any additional information	View File
Details of the students enrolled in Subjects related to certificate/Add-on programs	No File Uploaded

1.3 - Curriculum Enrichment

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

Different cross cutting societal issues are addressed by the institution through courses in curriculum, various bodies, programs and policies. The institution has taken much care to introduce a culture in expressing controlled behaviour, discipline, gender sensitization, environmental awareness, moral values, healthy relationship, empathy and sympathy.

The institution caters to all the students from a heterogeneous socio-cultural background; introducing the idea of gender sensitization from the very early days through Orientation and Induction Program. The social issues pertaining to the relationship, caste, decline sex ratio, eve-teasing, racism, sexism, etc. are delicately discoursed through English, Language Laboratory and Universal Human Values courses in the curriculum. Awareness program on gender equality and women's empowerment are undertaken through

guest lectures by eminent social workers and psychometric counseling.

The course curriculum also integrated with Environmental Sciences and Biology for Engineers. Students are well exposed to ecosystem, biodiversity and its conservation, renewable and non-renewable resources, environmental pollution and management, pollution control acts. Assignments on home energy saving, green home project, home water saving, rainwater harvesting, best use of recycling services, organic waste, composting, toxics/pollution preventing, waste and consumption, and sustainable living. Campus clean, eco-rallies and green abhiyan program are conducted under Swachh Bharat.

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

25

File Description	Documents
Any additional information	View File
Programme / Curriculum/ Syllabus of the courses	No File Uploaded
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	No File Uploaded
MoU's with relevant organizations for these courses, if any	No File Uploaded
Institutional Data in Prescribed Format	View File

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

20

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/agar2020-21/1_4_1_Stakeholders_Feedback.pdf
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	No File Uploaded
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/agar2020-21/1_4_2_Feedback_Report.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

532

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

110

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 students admitted in programs are from diverse backgrounds with different mindsets. In the very first day of orientation cum induction program, students are encouraged to express their problems and elicit other information for the engineering program. The teachers analyze the problem of students especially those who came from non-English medium. An assessment test is carried out to determine the students' potential to achieve their goal. A structured multiple-choice question format based on Mathematics, Physics & Chemistry in three grades (easy, moderate and tough) with negative marking and an English questionnaire to evaluate the students' ability to communicate clearly and accurately in a scientific fashion with fluid and cohesive arguments.

The progress of the students is continuously monitored and evaluated through interactive classroom teaching, daily activities, feedback from the subject teachers and performance in internal tests, assignments, quizzes and end-semester examination. From the above

assessment, the slow and advanced learners are identified. Subsequently both the category of students is channelized through separate special programs viz. mentoring system, special coaching, remedial classes, soft skill and aptitude classes, MOOCs courses, Gate tutor, etc.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/page.php?id=492
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
2739	172

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

Institute focused on student-centric learning and provide creative learning environment so that students can think on their own and interact with teachers and peers. The university curriculum provides sufficient scope for experimental learning which has been fully exploited by the institute. The institute has also evolved a number of innovative techniques to enhance experimental learning of the students such as learning through observation, value added training programs, extramural laboratory practices, simulation based laboratories, team based project work, programming proficiency development programmes, tech-oriented courses in collaboration with professional bodies, industry visit and internship.

Participative learning develops aptitude for self-learning and enhances creativity of the students. The methods and policies adopted are: teaching through smart techniques, teach while you learn, seminar and PPT presentation, technical events. Active participation in organizing Technical seminars, Tech Fest, Cultural Programs aids in development of their managerial, leadership and

team work capability. IIC and EDC cell inculcate the spirit of innovation and entrepreneurship, support start-up creation through guidance and mentorship, arrange idea to prototype competitions, prototype realization competitions and Hackathons. Analytical and problem solving ability of the students are enhancing through design based assignments and industry related issues, extensive tutorial work, social services in group and collaboration.

File Description	Documents
Upload any additional information	View File
Link for additional information	Nil

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

College has adopted ICT in its teaching-learning process since two decades back. The use of computers, laptops and internet are became a common practice for teachers and students. The college has ICT enabled classrooms which helps the e-learning process. The library is automated and accessible to e-resources vide LIBSYS with unlimited user login. The digital library is a rich collection of NPTEL video lectures and subscription of several e-books, e-journals. The entire campus is Wi-Fi enabled which helps students to stay connected with internet for updated information and tech-oriented learning. Teachers try to make the possible use of technology to improve the teaching-learning process.

Once COVID-19 pandemic affected the traditional teaching-learning, the IQAC immediately felt the need of digital teaching-learning and initiated the process of implementation. The entire faculty fraternity efficiently adopted online platforms and created digital classrooms using G-Meet and Zoom. They have developed e-content and used e-resources. Laboratory experiments conducted using virtual Lab facilities, simulation software and life demonstration. Concerned faculty members provided study materials and assignments in Google Classroom and took quizzes at regular interval. Teachers effectively used ICT enabled tools and resources viz. laptops, smartphones, headphones, virtual boards, internet, video-lectures, audio-lectures, PPT, YouTube links, e-contents, etc.

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

82

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

172

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	View File
Any additional information	No File Uploaded
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

60

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

1795

File Description	Documents
Any additional information	View File
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 carried out as per the schedule in academic calendar. The institute conducts four continuous assessments (CAs) of 25 marks for theory courses and two continuous assessments (PCAs) of 40 marks for laboratory courses in each semester. Normally, two unit tests are considered for any two CAs and rest two from the assignments, quizzes, etc.

Theory courses:

- Course Outcomes (COs) based question paper for unit tests.
- Answer scripts are evaluated and shown to the students within 7 days.
- Answers are discussed in details.
- Tabulated marks are displayed within next 2 days.

Laboratory practices:

- Laboratory reports are evaluated and shown by next lab day.

- Marks awarded for each experiment and handed over to the students along with the corrected laboratory reports.

Sessionals:

- Rubrics based assessment for all assignments.
- Weightages are given on attendance, notebook showing progress of sessional work, final report and viva-voce.

Projects/Seminar:

- The assessment is based on rubrics which clearly outlines the different evaluation criteria and the quality/score
- Weightages are given on creativity, originality, uniqueness and practical benefit aspects of the project, if any.
- Mid-term progress evaluation carried out through power point presentation and report submission.

File Description	Documents
Any additional information	View File
Link for additional information	https://www.nsec.ac.in/circular/Academic_Calendar_2020-2021.pdf

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

The examination related grievances are handled by the institute to the extent which is possible under its jurisdiction. As the institute is responsible only for the internal assessment part, any grievances are dealt internally. If there is any dispute related to the mechanism of the internal evaluation system then that is referred to head of the departments (HODs) as well as the mentor for an amicable solution.

Since internal assessment is very transparent, the grievances are few and their occurrence probability is also low. However, if any such grievance arises related to sessional, practical or unit tests, all are dealt with by the faculty concerned almost immediately. In general checking of the unit tests answer scripts are completed within 7 days and the corrected scripts are shown to the students for clarification of doubts, if any. Finally the unit test marks are published and displayed within next 2 days. If any student not satisfied with the marks awarded even after clarification by the

teacher concerned, student may appeal to the concerned HOD through mentor. The HOD takes necessary measures for reassessment of the answer scripts within a week. Assignments and practical reports are checked and marks awarded within one week.

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.

The primary and fundamental component of outcome based education is the attainment of course outcomes (COs) and is calculated from students' performance in internal continuous assessment and end semester university examination. The course outcomes represent the resultant knowledge, skills and attitudes the student acquires from the course. The course coordinator has defined the course outcomes in consultation with stakeholders if not mention in the university syllabus and the number of course outcomes is around six for each course. While writing course outcomes, Bloom's Taxonomy of Cognitive Skill is considered. These learning outcomes clearly describing the meaningful, observable and measurable knowledge, skills and/or dispositions students should able to do at the end of the course.

Program Outcomes (POs) represent the knowledge, skills and attitudes the students should possessed at the end of graduation. There are twelve such graduate attributes irrespective of the programs defined by National Board of Accreditation (NBA), India. The program specific outcomes (PSOs) are explicit graduate attributes for a particular program and are around three for each program defined by the department. The course teacher prepare course file and familiarize the students with lesson plan, course objectives and outcomes at the onset of each semester.

File Description	Documents
Upload any additional information	View File
Paste link for Additional information	https://www.nsec.ac.in/page.php?id=427
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.

One of the important aspects in Outcome-Based Education (OBE) is the assessment of students' performance and achieving the set attainment for Courses Outcomes (COs) and Program Outcomes (POs). COs define the qualities attained by the students on completion of particular course in each semester. POs are the twelve graduate attributes defined by NBA. The level of CO attainment is measured by the marks scored in internal continuous assessment (X) and University examination (Y). Institute set the attainment levels based on actual percentage of students getting set percentage of marks. Each question is mapped with COs which effectively helps to determine the achievement by each students. The final course attainment as per the set percentage of marks for the theory and laboratory courses as: Theory courses = $0.7 \times X + 0.3 \times Y$ and Laboratory courses = $0.6 \times X + 0.4 \times Y$.

All COs are mapped with POs and attainment of POs is calculated from direct assessment (DA) and indirect assessment (IA). The total attainment of each PO calculated as: Total Attainment (TA) = $0.8 \times DA + 0.2 \times IA$. The results are analyzed and institution adopted methodology to improve upon any PO, if needed, through revision of program, review of pedagogic method, extramural training and feedback.

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

786

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	Nil

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/agar2020-21/NAAC-SSS-2020-21.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)

2.5

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

24

File Description	Documents
Any additional information	No File Uploaded
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

2

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://nic.mic.gov.in/assets/img/List-of-Innovation-Teams-Selected-for-Grant-Support-with-Incubation-Linkage-18-Nov-2021.pdf

3.2 - Innovation Ecosystem

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

The institute encourages the creative energy of the students to work on new ideas and innovation. The major focuses are to create a vibrant local innovation ecosystem and to develop better cognitive ability for technology students. The NSEC Entrepreneurship Development Cell (EDC-NSEC) started its journey with the aim to inculcate the spirit of innovation and entrepreneurship amongst the young students, encourage and support start-up creation through guidance, mentorship and support. The cell would also spread the message of entrepreneurship and create a culture of entrepreneurship at NSEC campus and beyond.

The Institute Innovation Council (IIC) has been constituted as prescribed by MHRD-IIC to methodically foster the culture of innovation as a part of curriculum. The council encourages, inspire

and nurture the talent of young and creative students to work on new ideas leading to establish an innovative ecosystem in the campus. The innovative minds are attracted through experts talk session, periodic workshops/ seminars/ interactions with entrepreneurs, investors, and professionals. Several Hackathons, idea competitions, mini-challenges with the involvement of industries are arranged for active involvement and even promotes the students to participate in national and state levels. Few amongst the "Job-Seekers" would be converted to "Job- Generators" through the entrepreneurial route.

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

14

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

8

File Description	Documents
URL to the research page on HEI website	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	No File Uploaded

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

37

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

79

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

The institute firmly believes that education is not only confining in classroom activities of students but sensitizing them to understand the people's life in the society and improve the living

of the underprivileged. The objective lies in taking action through community and services in creating head-on sustainable solutions to local and world challenges. The students and faculty members regularly conducts various extension activities in the neighboring community mainly through NSS Unit and NSEC-Rotaract Club. The institute has also adopted five villages under Unnat Bharat Abhiyan along with the existing social activities but all the planned activities could not conduct due to pandemic.

The participation in extension activities transform the outlook of students and enlighten the spirit of social responsibility to create a peaceful society. The Rotaract community looks forward to expanding their professional network and exchanging ideas to cultivate life-long global friendships and highlighting the importance of community service as well as self-service. Even during the ongoing pandemic, several initiatives were taken by the club to provide necessary essentials such as Sanitary Napkins, Rice grains, Pulses, Medicines and Masks and Sanitizers to the underprivileged. A few noteworthy virtual events conducted include - "Soch aur Satark" and "And People Stayed Home".

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/page.php?id=585
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

30

File Description	Documents
Any additional information	No File Uploaded
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

10

File Description	Documents
Reports of the event organized	No File Uploaded
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

95

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

57

File Description	Documents
e-copies of related Document	View File
Any additional information	No File Uploaded
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

5

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.

According to AICTE and affiliated University norms, the physical facilities and infrastructures have been established to support and boost teaching-learning in conformity with best practices in the academia. The campus is spread over 20.29 acres of land with 6,575 square metres of free/air space which facilitates for teaching-learning, career progression, and research. Each department has adequate physical space and academic infrastructure offering excellent and attractive environment for imparting quality education.

The class rooms are well-furnished, ventilated and spacious, majority of the classrooms are equipped with computer, LCD, webcam,

headphone, LAN, and Wi-Fi connectivity. All laboratories are well-equipped and well-maintained with added facilities for conducting extramural experiments. All departments have adequate number of computer laboratories along with one central computer laboratory. Some laboratories equipped with virtual facilities and simulation software for live demonstration of experiments. The college has two state-of-the-art English communication labs, graphics halls, AutoCAD lab and workshops. The institution has multimedia centre equipped with audio-visual equipment and Webinar centre for video conferencing. Central and departmental laboratories are equipped with adequate numbers of instructional resources. Seminar halls and auditorium have LCD facilities and adequate seating capacity. The campus is LAN and Wi-Fi enabled, students can access internet at any point.

File Description	Documents
Upload any additional information	No File Uploaded
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.

Sports are an integral part of education with simultaneous and holistic development of mental and physical health of the students. The huge green-field college playground is the place for outdoor sports facilities includes football court, volleyball court, tennis court, cricket pitch and open space for yoga, etc. A small construction in the same area accommodates gymnasium and drinking water plant for supplying neighbouring locality at very nominal cost. The indoor arrangement within the campus comprises of a badminton court, table tennis, carom, chess, etc. Sports club organizes different sports tournament and conducts annual sports where large number of students and faculties participate in the same. The winners are provided with honours like medals, certificates and trophies. Students are provided with necessary support to participate in inter-college tournaments and university sports program.

The institution is committed to create a balanced atmosphere between cultural and sports activities. The cultural club conducts various cultural events, literary activities and competitions round the year for students. The college encourages the students to participate in

various cultural activities and motivate them to excel in their fields of interests like singing, recitation, sketching, dancing, theatres, short films, photography, etc. The indoor area accommodates various exhibition and festivals.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://www.nsec.ac.in/page.php?id=519

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

44

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	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)

941.34345

File Description	Documents
Upload any additional information	No File Uploaded
Upload audited utilization statements	No File Uploaded
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 well ventilated and open access for Books, Periodicals, Journals, Special Reports, Theses, Indian Standards, Magazines, Newspapers, Question papers of the affiliating university, etc. The area is Wi-Fi enabled having a large air-conditioned reading room with a seating capacity of 100 users. The Central Library has a rich collection of books, print journals, IEEE, CD / DVDs, lecture videos from NPTEL and e-books, e-journals which are accessible from anywhere in the campus. Every semester, new titles and new volumes are being added, new editions of the old books are being procured, and additional e-books, e-journals are being purchased as a part of continuous enrichment.

Name of ILMS software: LSEase (rel.5.0)

Nature of automation: Fully automated

Version: College version

Year of automation: 2006

An e-resources centre has been setup in the library using LIBSYS with unlimited user login. The circulation module covers all operation of circulation, member records with option for printing. The main features of the module are single screen issue, return and renewal along with total details of members with photo and statistical report. The database module helps in database creation and maintenance. A box is kept in the library for suggestion and overall improvement.

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	No File Uploaded
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)

0.66

File Description	Documents
Any additional information	No File Uploaded
Audited statements of accounts	No File Uploaded
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

20

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 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 Webinar centre which facilitates the video conference for effective teaching-learning process. The departments of the institution are equipped with 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 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. Library system is controlled by Libsys Software. Students and faculties can access the on-line library system from their nodes. Internal backbone network connectivity had been upgraded from STP to Fibre optics.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://www.nsec.ac.in/page.php?id=492

4.3.2 - Number of Computers

1082

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	No File Uploaded
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)

168.58

File Description	Documents
Upload any additional information	No File Uploaded
Audited statements of accounts	No File Uploaded
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 supervises the regular maintenance and proper utilization of infrastructural facilities of the institute. The maintenance works mainly carried out by trained in-house experts and some are outsourced to external agencies. Equipment and furniture are procured through central purchase committee. Computers and software are upgraded as per the need of the department and market relevance.

All laboratory equipment, computers, library books, pedagogic tools like projectors, laptops, microphones, etc. located in the departments are to be taken care by the HOD. Stock Registers are maintained as regards their procurement prices and other details like location. For expensive items separate log books for utilization are maintained. In case of repair of these items, the HOD is empowered to contact the supplier or servicing centre and place order after obtaining approval from the authority.

Sports items are replaced on recommendation of the Faculty-in-charge (FIC) of Sports and games. The playground is maintained under the FIC supported by the Estate Maintenance. Student common rooms, general purpose infrastructure and support systems are maintained by the Administrator. All central facilities are under the direct

control of the Principal, who is responsible for supervising their utilization and functioning with the help of relevant committees.

File Description	Documents
Upload any additional information	No File Uploaded
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 benefitted by scholarships and free ships provided by the Government during the year

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

179

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 benefitted 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 benefitted by scholarships, free ships, etc provided by the institution / non- government agencies during the year

179

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/#
Any additional information	No File Uploaded
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

578

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

578

File Description	Documents
Any additional information	No File Uploaded
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 mechanism for timely redressal of student

A. All of the above

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	No File Uploaded

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

439

File Description	Documents
Self-attested list of students placed	View File
Upload any additional information	No File Uploaded
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

16

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

23

File Description	Documents
Upload supporting data for the same	View File
Any additional information	View File
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.

14

File Description	Documents
e-copies of award letters and certificates	View File
Any additional information	No File Uploaded
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)

The students of this college are an integral part of all college activities. Students provide necessary input required by the management as they are directly connected and involved in various important processes. The institute extend support and given responsibilities to organize different activities and events. With the objective of inculcating the qualities of leadership and organization, active student bodies are in place along with a strong representation of students in the academic and administrative bodies/committees.

Different student bodies involve in organizing co-curricular and extra-curricular activities under the guidance of faculty representatives. Such platform offers a plethora of opportunities to students to give them a voice of their own and shed their inhibitions through enriching and engaging experiences. Club activities, workshops and intra-domain competitions enhance the communication, team management, time-management, resource management, and leadership skills and above all build confidence in each student.

Various student council:

1. Technical Club-Phoenix
2. Eco Cultural Club
3. Literacy Club
4. Lensified Club
5. Sports Club
6. IEE Students Chapter

7. Google Developers Club
8. GNX Society
9. Code Chef Campus Chapter
10. NSS unit
11. NSEC-Rotaract Club.

Students' representation in Institution bodies/committees:

1. Internal Quality Assurance Cell
2. Library Committee
3. Placement & Training Committee
4. Career Development Council
5. IIC & EDC
6. Internal Complaint Committee
7. Anti-Ragging Committee

File Description	Documents
Paste link for additional information	www.nsec.ac.in/page.php?id=341
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

1

File Description	Documents
Report of the event	No File Uploaded
Upload any additional information	No File Uploaded
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

Alumni are one of the prime stakeholders of the institution. The alumni association started its journey in the year 2008 with the name Netaji Subhash Engineering College Alumni Association (NSECAA). This NSECAA is exclusively for charitable, literacy and educational purposes. The institution is extremely proud of its alumni. Most of them are successful in their careers in profession, higher education and in the field of entrepreneurship. Institute successfully draws supports through Alumni meets on 23rd January each year in College Foundation Day and seeks suggestions for the development of the institution. They share their experiences and knowledge with the ace students and motivate them to achieve their goals. All departments also arrange reunion/alumni meets under the umbrella of NSECAA.

Alumni Contributions:

1. Sharing accomplishments and success stories to current students.
2. Delivering special lecture and motivating enrolled students.
3. Providing suggestion to modernize the existing facilities and upgrade at per industry requirements.
4. Facilitating the industrial training and field visit.
5. Advocating placement, industry visit and internship.
6. Assisting financial support, helping in pre-placement training and placement.
7. Facilitating in collaboration and MOUs with academia and industry.
8. Establishing and fostering community relationship amongst NSEC alumni
9. Providing feedback for academic reform.
10. Contributing professional development as members of IQAC.

File Description	Documents
Paste link for additional information	http://www.alumni.nsec.ac.in/
Upload any additional information	No File Uploaded

5.4.2 - Alumni contribution during the year E. <1Lakhs
(INR in Lakhs)

File Description	Documents
Upload any additional information	No File Uploaded

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

Board of Governors (BOG) is the supreme authority in respect of all matters concerning the institution - academic, administrative or financial. BOG acknowledges the faculty as the backbone of the institute. Hence instead of a micro level control, it encourages faculty to make decisions and implement them for building a strong academic base in the institute. BOG plays the role of a leader in framing a policy, renders all necessary help to the faculty for implementation of the policy keeping its role restricted mostly to that of a facilitator.

Policy laid down by the BOG through the vision of the institute speaks of accomplishment of excellence in engineering and technological education, research and entrepreneurship to render services to the society. The perspective plans to achieve the targets i.e. vision of the institute, are elaborated through the four stages of Mission in sequential order. The plans have been so made that the target is achievable by the faculty with minimal guidance of the BOG, the Management.

In the prevailing bottom - top approach of institutional governance, institute is faculty-centric and faculties are empowered to take all decisions regarding academic issues and their implementation within the frame work of the institute's vision and mission.

File Description	Documents
Paste link for additional information	www.nsec.ac.in/page.php?id=98
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 follows a Bottom-Top approach, pursuance of which results in a decentralized and participative management. It is believed that any problem or issue should be handled at the level of origin by those who are directly involved. Matters only brought to the notice of the hierarchy when it cannot be solved or resources are needed. Quite naturally it starts from pedagogic management of departmental programmes, and related physical and academic resources. However, the guidelines are framed by the department collectively under the guidance of HODs/Deans/Principal. Board of Governors (BOG) has empowered different committees under the guidance of Principal/Director to manage all issues related to academics, their implementation, and administrative problems involving students.

In Institute Committees, majority of the members are faculties. The committee decisions are final and in case of dispute, the BOG is the final authority. For BOG Committee, one professor and one assistant professor are nominated. BOG is the apex body to take final decisions on academic, administrative and financial issues related to the institute. As per the decentralization policy, all academic matters are considered under the purview of Academic Committee (AC) and all academic related policies and quality initiatives by Internal Quality Assurance Cell (IQAC).

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/images/Other-Committee-2016-21.pdf
Upload any additional information	View File

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ perspective plan is effectively deployed

"Pursuit of excellence in Education" has been identified as the first and foremost distinctive feature in the vision of the institute. Several strategic plans conceived and actualized for achieving the goal. One such operational example:

Industry Collaboration and MOU with different Organizations

The institution immensely felt the need of beyond curriculum training for industry readiness where involvement of experts from

industry/institute is indispensable. During this period, college signed MOU with different top-notch organizations and some departments signed MOU with universities for academic collaborative research.

1. MOU with NASSCOM: Impart training on latest technologies and already, a couple of workshops were organized by NASSCOM.
2. MOU with Great Learning: Impart training on latest technologies and extend support for placement process.
3. MOU with GTT Foundation: Impart training on GD, interview skill enhancement and Mock PI. Already Mock Interview sessions organized for final year.
4. MOU with TCS: TCS induced B.Tech Programme in Computer Science & Business Systems (CSBS). TCS has designed the syllabus in aligned to need of IT industry. Organize FDP to train faculty.
5. MOU between Department of ECE and A. K. Choudhury School of Information Technology, University of Calcutta: Training and research activities in the domain of IoT and Cyber Physical system.

File Description	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	Nil
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.

Board of Governors (BOG):

BOG is the highest authority with nominated representatives from the Society. BOG is responsible for governance of the institute, frame directive principles and policies, service rules, amend and approve policies, appointment in tiers, and approve budget.

The Administrative Positions as set up by the BOG for administering the academic and administrative activities of the institution:

1. The Director empowered by Society to supervise the college in close co-ordination with Governing Body and Head of the Institution.

2. The Principal being the head of the Institution is the in-charge of administration and all academic programmes and activities. The Dean and Heads of the Departments support the principal in smooth functioning of academic activities.
3. The Dean supervises the research and development activities and in-charge of academic affairs of the college.
4. The Registrar look-after the administrative activities supported by administrative officer.
5. Student Welfare Officer coordinate co-curricular and extra-curricular activities, and responsible for well-being of the students.
6. Chef Coordinator supervises and monitors the Entrepreneurship and Innovation activities.

Various statutory bodies where faculty representation is maximum; viz. Internal Quality Assurance Cell, Academic Committee, Finance Committee, Anti-ragging committee, Internal Complaint Committee, Grievance and Redressal Committee for smooth conduction of academic and administrative activities.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/images/Service-Rules.pdf
Link to Organogram of the institution webpage	www.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	No File Uploaded
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 following welfare schemes for teaching and non-teaching staffs are in vogue in the institute.

1. Welfare Cooperative name Netaji Subhash Engineering College Employees Cooperative Credit Society Ltd. has formed with the objective to create funds for lending money to its members.
2. Medical facilities:
 - Free treatment on working days at the Medical Unit of the institute
 - Free ambulance facility for employee and family from home.
1. Children's education:
 - All employees enjoy a concession in children's education, if their wards study in the TIG managed Techno Model School.
1. Study leave:
 - Special facility to the regular faculties "leave on without pay basis" for updating their knowledge and experience and for upgrading qualification.
1. Other employee benefits:
 - Provident fund to all eligible employees covered under EPF scheme as per applicable rules
 - All eligible employees covered by ESI as per ESI Act.
1. Employees' Group Insurance Scheme:
 - Employees whose salary account in Axis Bank Ltd covered under TATA AIG group medicare.
1. Policy for support to career development:
 - Concession to teaching loads and special leaves granted as and when needed for carrying out higher studies, research, pursuing Ph.D or professional development like training or visits to industries, etc.
 - Technical staff members are encouraged for enhancement of their qualifications.

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

2

File Description	Documents
Upload any additional information	No File Uploaded
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

2

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	No File Uploaded
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

26

File Description	Documents
IQAC report summary	View File
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	No File Uploaded
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

Performance Appraisal for all teaching and non-teaching staff is mandatory for confirmation of service and promotion. It depends on the Annual Performance Review (APR) by Director/Principal and Head of the Departments followed by personal appraisal held by the Appraisal Committee. A well-formulated mechanism is in place to review periodically the progress and quality of teaching and non-

teaching staffs.

A Self-Appraisal Form (SAF) is to be filled in by an employee desirous of being appraised for promotion. The regular employees are eligible for promotion and contractual employees are not. However, the latter categories are eligible for increments post successful performance before the appraisal committee. An SAF will carry the following details to be filled in by the employees concerned. Its validity is normally for a year. The contents are:

- Employee details
- Qualifications
- Description of job carried out in details
- Achievements
- For faculty: academic, professional membership, research and guidance, publications, technological developments and contributions.
- For non-teaching staff: job related proficiency, commendable services rendered and contributions.

An employee awarded with poor/unsatisfactory rating in any of the last three APRs will not be eligible for promotion unless he/she had acquired two excellent ratings, one of which has to be in the last APR.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/impdoc/635.pdf
Upload any additional information	No File Uploaded

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 has a transparent mechanism for internal and external audit as per the government rules. Institute conducts internal and external audit annually.

1. Internal Audit:

The audit team consists of:

- Qualified auditor from Corporate (Society's) Office nominated by the BOG
- Institute Accountant
- Office Assistant attached to institute account's section

Institute account section provides all necessary records of income-expenditure vouchers, approval documents, approved budget, etc. to the team. This includes revenue generated from all sources for the college. The internal auditor does a thorough check and verification of supporting documents including fee receipts and payment vouchers of the transaction carried out in each financial year. The auditor also ensures that all payments are duly authorized. A statutory audit report is prepared and submitted to the college management for review.

1. External Audit:

External audit is carried out every year by the corporate office. On submission of the internally audited accounts to the corporate office, the accounts are arranged to be audited by a chartered accountant appointed by the board of trustees. Institute's accounts are examined as those of a group's (Society's) subsidiary. The institute accountant is also asked to be present.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

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

For a self-financing educational institute, the major revenue is raised from students' tuition fees i.e. semester fees. IQAC has categorized specific activities for mobilization of funds and resources on top of the regular fund flow activities i.e. teaching-learning process.

Strategies for mobilization of funds:

1. Tuition fees collected from students for carrying out Teaching-Learning processes
2. Add-on fees for inculcation of Professional Skill, Soft Skill, Value Added Training Programs, Industrial Training, etc.
3. Grants for Research and Development activities, consultancy, organizing seminars and conferences, faculty development programs from Government and Non-government bodies/industries.
4. Endowments for Scholarships and Awards for academic excellence
5. Donations from alumni/employers/stake holders/well-wishers for specific activities
6. Revenue collected from Library Fines, deduction from Caution money for replacement of equipment/infrastructure, etc.
7. Rental fees collected from recruiting agencies like IT companies, Banking Services, DRDO, or for academic exercises like WBJEE, IITJEE, IIT GATE, etc.
8. Rental from commercial organizations like Bank, Food Court located in institution's premises-a mutual benefit scheme.

Optimal Utilization of Resources:

1. Sharing of the infrastructure working within the guide lines of the Regulatory Bodies.
2. Sharing of laboratories, classrooms, pedagogic tools, etc. by different departments.
3. Sharing of spare-able resources for second shift programs.

4. Utilization of resources by external professional bodies especially during holidays.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

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

IQAC takes the onus of assuring and maintenance of quality of the academic and administrative activities of the college. Quite a few best practices have been institutionalized as a result of IQAC initiatives. Based on present perspective and current industry requirements, two recently institutionalized practices are:

1. Professional Skill Sets of Students:

Specially designed training programs to enrich students with the current trends of the industry and make them industry-ready and employable. The domain covers need based value added training programmes, programming proficiency development programmes, soft skill and aptitude training. The motto of the later is to build basic concepts in enhancing quantitative, verbal and reasoning ability. The key areas focussed on conversation skills, group skills, critical and creative thinking, emotional skills, positive thinking and vocational skills. All departments exclusive practiced and implement the programs.

1. Digital Teaching-Learning:

Due to Covid-19 pandemic, IQAC immediately envisage the use of technology enabled educational online system to support learning and teaching at the best path and pace. The effective use of online platforms and e-resources are the best possible alternative to compensate the traditional classroom learning. The entire faculty fraternity efficiently implemented online platforms and instill confidence in students in term of its utility.

File Description	Documents
Paste link for additional information	www.nsec.ac.in/page.php?id=574
Upload any additional information	No File Uploaded

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

IQAC reviews the quality of teaching learning by analyzing the feedbacks collected from the stakeholders at periodic interval and learning outcomes from the attainment of course outcomes, program outcomes and program specific outcomes. Based on the information received, incremental improvement made in two broad areas as follows:

1. Effective use of ICT in teaching learning

1. Majority of the classrooms and laboratories are fully equipped with ICT facilities.
2. New classrooms and laboratories which have been created are equipped with multimedia with projected and white board as screen.
3. All classrooms and laboratories are LAN connected and Wi-Fi enabled.
4. Audio-visual facilities have been created in each department to facilitate the teacher to record their lecture.
5. Teachers used ICT tools to prepare and deliver their lectures through PPTs, audios and videos.
6. All the academic administrative activities were carried on using licensed version of Zoom.
7. All faculty members have created digital classrooms through Google Workspace using college domain id and all classes are conducted online.
8. Teaching-learning processes, assessment, parent-teacher meeting etc. are organized using these online platforms.
9. Laboratory experiments are also organized using virtual Lab facilities, simulation software environment and live demonstration of experiments by faculty and academic staff fraternity directly from Laboratories.
10. Students Clubs and Professional Chapters viz. IEEE Students Branch Chapters, Google Developers Club, GNX Society organize a numerous webinars using online platforms where academicians from across the globe and top-notch industry people interacted

with students.

2. Enriching Induction Program

College has the rich legacy of conducting Induction programme for the fresh students who enter the college in the first year of their undergraduate studies in various courses, even before this was made mandatory by AICTE. The programme is critically designed and consisted of an Orientation Programme followed by:

1. Industry Outreach Talks by eminent persons from various industries,
2. Alumni sessions by various alumni of different departments who are well placed in different reputed industries, research laboratories and Universities in India and abroad,
3. Master classes by very well-known and stalwarts of Engineering and science education,
4. Motivational sessions
5. Session on Art of Living
6. Boot camp on First step towards professional career
7. Boot Camp on Soft skill in industries
8. Boot camp on cyber security and ethical hacking
9. Bridge course on Physics and Mathematics
10. Entrepreneurship development program by Wadhwani Foundation

Also the students are made aware about the University related affairs, Massive Open Online Courses (MOOCs) and Mandatory Additional Requirements (MARs) for acquiring B. Tech with Honours degree from MAKAUT. Further, senior students' representatives' from different students' club like Lensified-The photography club, Rotaract unit and NCC unit of NSEC interact with students.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/page.php?id=574
Upload any additional information	No File Uploaded

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

A. All of the above

**any other quality audit recognized by state,
national or international agencies (ISO
Certification, NBA)**

File Description	Documents
Paste web link of Annual reports of Institution	https://www.nsec.ac.in/page.php?id=574
Upload e-copies of the accreditations and certifications	View File
Upload any additional information	No File Uploaded
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 religiously looks into the matter of providing academic and non-academic help to students irrespective of their socio-cultural and sexual identities and orientation. The selection process and admission purely based on merit irrespective of the gender. The institution integrates special programmes for gender sensitization through orientation cum induction program for newly admitted students. A lady psychologist offers counseling and guidance to the students, the faculty advisors and their mentors. The social issues pertaining to the relationship, caste and gender discrimination are delicately discoursed through English and Language Laboratory courses in the curriculum.

The women grievance cell of the institute looks after the issue pertaining to women in particular. The institution in collaboration with Gender Benders, a social group led by people of various layers of academic practices, organizes numerous workshops, seminars and conventions. It is worth noticing that the female faculty strength counting to a bare minimal of less than 40%; it has dexterously channelized its female power by ensuring their involvement in almost all the functioning committees. Every year, mass awareness program on gender equity organized on International Women's Day. Separate common rooms catering to the needs of both boys and girls are sufficiently furnished and well-maintained.

File Description	Documents
Annual gender sensitization action plan	Nil
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	Nil

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

C. Any 2 of the above

File Description	Documents
Geo tagged Photographs	No File Uploaded
Any other relevant information	No File Uploaded

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 routine operations conducted in the college have very less impact on the environment. The college is keenly vigilant to generate waste as low as possible. Especially design hoardings are used to minimize the usage of natural resources; water, electricity etc. However, regarding the waste management following measures are taken:

1. Solid Waste Management:

Solid wastes generated from different sources are segregated through colour specific waste-bins. Disposal carried out through local civic authorities.

- Green Waste-bins for biodegradable wastes
- Blue Waste-bins for non-biodegradable wastes
- Red Waste-bins for specific laboratories

1. Liquid Waste Management:

Sewage and effluents from canteen discharge through normal sanitary system. Laboratory waste particularly in Chemistry and environmental laboratory are disposed with special care and proper precautions.

1. E-Waste Management:

This includes motherboards, memory chips, compact discs, cartridges, batteries etc. generated by electronic equipment such as Computers, Phones, Printers, UPS, Fax and Photocopy machines. The E-wastes thus generated are recycled as far as possible and usages of spare-parts from old machines are diligently practiced. However, E-waste generated from hardware and condemned materials which cannot be reused or recycled are stored in a separate safe zone and disposed centrally through scrap dealers and authorized vendors.

Hazardous Chemical, Biomedical and Radioactive waste are nil.

File Description	Documents
Relevant documents like agreements / MoUs with Government and other approved agencies	No File Uploaded
Geo tagged photographs of the facilities	No File Uploaded

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

B. Any 3 of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	No File Uploaded
Any other relevant information	No File Uploaded

7.1.5 - Green campus initiatives include

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

B. Any 3 of the above

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

File Description	Documents
Geo tagged photos / videos of the facilities	No File Uploaded
Various policy documents / decisions circulated for implementation	No File Uploaded
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

B. Any 3 of the above

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	No File Uploaded
Certification by the auditing agency	View File
Certificates of the awards received	No File Uploaded
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.

B. Any 3 of the above

Provision for enquiry and information :

Human assistance, reader, scribe, soft copies of reading material, screen reading

File Description	Documents
Geo tagged photographs / videos of the facilities	No File Uploaded
Policy documents and information brochures on the support to be provided	No File Uploaded
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 provides an inclusive environment with no discrimination among different religions, castes, languages, genders, cultures or economic status. It offers equal opportunity to everyone right from the very first day i.e. the admission is strictly on the basis of merit. Starting from the First Year induction programme, these values are emphasized and frequent organized awareness programmes. In addition suitable posters and displays are spread all over the campus regarding gender equity, brotherhood and behavioral improvement. The institute celebrates the cultural and regional festivals to teach tolerance and harmony to the students.

All round development of students is encouraged through mentoring, guidance and participating in Rotaract community services, Hackathons, Tech Fest, etc. A sizeable number of students are from other states. The students' sports club, photography club and eloquence-the literacy club organized different activities to promote harmony towards each other. International Women's Day, Yoga Day, etc. celebrations also promote tolerance and harmony. Anti-ragging Cells are instituted to take care of ragging issues. Two-tier disciplinary Committee - at the Departmental level and at the institute level takes care of gross indiscipline amongst the students. Anti-Sexual Harassment Cell chaired by a Woman Faculty looks into all sexual indiscretion cases in the College.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	No File Uploaded
Any other relevant information	No File Uploaded

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

The first step towards sensitization of students and employees of the institution to the constitutional obligations is formulation of rules and regulations approved by the Board of Governors, strict observance of the rules, and constitution of a Grievance Redressal Cell in case of any violation. The rules and regulations are so framed that they are applicable to all irrespective of gender, creed and culture. Right to Information Cell takes care of maintenance of transparency.

The employees are mature enough to know their right, duties and responsibilities as citizens. It is the students who are still young needing awareness programmes. The awareness starts from conduction of Induction programme. They are told about their values, rights, duties and responsibilities as citizens of India. Further input comes from the classroom teaching and the curriculum includes a compulsory course on Constitution of India or Essence of Indian Knowledge Tradition. The institute celebrates Independence Day, Republic Day, Netaji Jayanti, Gandhi Jayanti and Constitution Day to mark the importance of freedom and glory of Indian freedom fighters. The institute also arranges Blood Donation Camp to save life, celebrates Woman Day to mark the achievements of women and World Environment Day to aware pollution issues.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	Nil
Any other relevant information	Nil

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, B. Any 3 of the above

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

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	No File Uploaded
Any other relevant information	No File Uploaded

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

Various festivals are celebrated in the college campus such as Holi, Bengali New Year, Rabindra-Jayanti, Monsoon-onset (Borshamongol), Dussera (Bijoya Dasami) etc. The greatest of all the celebrations take place on the birth anniversary of Netaji Subhash Chandra Bose, which happens to be the Foundation Day of the college. A cultural programme is organized preceded by the hoisting of the flag and march-past by the security personnel of the college, keeping in mind the patriotic essence of the day. Moreover, the college takes this auspicious opportunity to give away prizes of excellence to students and faculty members and other staffs.

Students organize and participate in competitions, cultural events and college fests through various institutional clubs, the biggest of all being 'Avenir', the tech-fest organized by tech-club Phoenix. This gala event is a three-day extravaganza, showcasing the creative talents of the students on a wider platform.

International Women's Day is celebrated to highlight the achievements of women. The students enthusiastically design and

display posters on the theme. The day also marks a call to action for accelerating gender parity. College also celebrates Teachers Day, Environment Day, Earth Day, World Water Day, National Science Day, Forensic Science Day, Ozone Day, etc. every year.

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	No File Uploaded
Geo tagged photographs of some of the events	No File Uploaded
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.

BEST PRACTICE: 1

1. Title of the Practice

Enhancement of Skill Sets of Students

2. Objectives of the Practice

Specially designed training programs to enrich students with the current trends of the industry and make them industry-ready and employable.

3. The Context

Build basic concepts in enhancing quantitative, verbal and reasoning ability. The key areas focussed on conversation skills, group skills, critical and creative thinking, emotional skills, positive thinking and vocational skills.

4. The Practice

Soft skill development training programs in association with Global Talent Track, Aptitude skill training programs by eminent experts, Tech oriented online courses with Great Learning, current industry

demands programs in collaboration with EPAM, focused training programs by Accenture, special training programs by TCS and programming proficiency development programmes for pre-final year by the experienced faculty members.

The uniqueness of these training sessions lies in how a wide range of relevant issues are raised, relevant skills discussed and tips for integration provided in order to make candidates effective in workplace and social environments.

5. Evidence of Success

Employability skill development programmes are being conducted by experts from various industries and industry bodies through MOU. Students empowering themselves through these multifarious training and becomes a competent professional to face the highly competitive corporate world. The placement statistics is fabulous during Covid-19 pandemic. More students successfully crack and secure their position in the campus recruitment selection process as well as in higher studies.

6. Problems Encountered and Resources Required

Design and develop tailor-made training programs that spark curiosity and motivate the learners. The trainers' approach that play a critical role to engage students and of course the commitment of participants. Persons with key experience can only create a real and practical environment through examples and case studies.

7. Notes (Optional)

At present day scenario, employability opportunities of graduates are mostly depends on IT industry. Programming proficiency development training programs can enhance the programming skills among all students and make them employable in IT industry.

BEST PRACTICE: 2

1. Title of the Practice

Digital Teaching Learning

2. Objectives of the Practice

Technology enabled educational procedure for effective use of online platforms and e-resources to support learning and teaching at the best path and pace.

3. The Context

Under the threat of Covid-19 pandemic, Institute has adapted online platforms quickly and efficiently for teaching-learning to fill the gap created by suspended traditional classroom activities. The institution offers courses online and to instill confidence in students in term of its utility.

4. The Practice

This comprises the application of a wide spectrum of practices including blended and virtual teaching-learning. All faculty members have created digital classrooms through Google Workspace using college domain id and all classes are conducted online. Laboratory experiments are organized using virtual Lab facilities, simulation software and live demonstration. The tools and e-resources used viz. webcam, virtual whiteboard, digital writing pad, digital pen, PPT, online video, video lecture, e-books, e-notes, NPTEL course materials, simulation software, etc.

5. Evidence of Success

All courses in the curriculum for odd and even semester are completed using digital platform. Concerned faculty members provided study materials, assignments in Google Classroom and take MCQ test at regular interval. Students can access videos that provide instruction on a wide variety of topics at various skills levels and participate in real-time video conferences with teachers. Course coverage and performance of the students in the end-semester examinations are highly satisfactory. Students' feedback is also taken online.

6. Problems Encountered and Resources Required

Digital learning is unfavorable for poorly performing students or

who receive less structured educational supports at home. It is likely to benefit students differently depending on the availability of internet access and speed.

NAAC

File Description	Documents
Best practices in the Institutional website	www.nsec.ac.in/page.php?id=612
Any other relevant information	<p><u>BEST PRACTICE: 2</u></p> <ol style="list-style-type: none"> <u>1. Title of the Practice</u> <u>Digital Teaching Learning</u> <u>2. Objectives of the Practice</u> <u>Technology enabled educational procedure for effective use of online platforms and e-resources to support learning and teaching at the best path and pace.</u> <u>3. The Context Under the threat of Covid-19 pandemic, Institute has adapted online platforms quickly and efficiently for teaching-learning to fill the gap created by suspended traditional classroom activities. The institution offers courses online and to instill confidence in students in term of its utility.</u> <u>4. The Practice This comprises the application of a wide spectrum of practices including blended and virtual teaching-learning. All faculty members have created digital classrooms through Google Workspace using college domain id and all classes are conducted online. Laboratory experiments are organized using virtual Lab facilities, simulation software and life demonstration. The tools and e-resources used viz. webcam, virtual whiteboard, digital writing pad, digital pen, PPT, online video, video lecture, e-books, e-notes, NPTEL course materials, simulation software, etc.</u> <u>5. Evidence of Success All courses in the curriculum for odd and even semester are completed using digital platform. Concerned faculty members provided study materials, assignments in Google Classroom and take MCQ test at regular interval. Students can access videos that provide instruction on a wide variety of topics at various skills levels and participate in real-time video conferences with teachers. Course c</u>

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

Entrepreneurship is one of the priority and thrust area cited in the vision of the Institute. The NSEC Entrepreneurship Development Cell (NSEC-EDC) started its journey with the aim to inculcate the spirit of innovation and entrepreneurship amongst the young students of this institute, encourage and support start-up creation through guidance, mentorship and support. Students are encouraged to take up innovative projects with possibility of commercialization. With faculty already trained in the nuances of entrepreneurship, the presence of NSEC-EDC would create a vibrant entrepreneurial culture amongst the students.

Institution Innovation Council (IIC) and EDC of NSEC has organized a series of events based on entrepreneurship, idea to prototype competitions, prototype realization competitions, Hackathon, Entrepreneurial Talk, 3-months training programme on entrepreneurship development among students etc. During pandemic, IIC of NSEC in collaboration with IEEE and CII has organized several webinars by Industry Professionals. The institute has selected as Mentor Institute by Innovation Cell of MHRD & MoE, Govt. of India, selected as Host Institute - Business Incubation (HI-BI) Centre by MSME, Govt. of India and IIC of institute received 5-Star rating in IIC2.0 during September 2020 & 3.5 Star IIC3.0 during December 2021 from Ministry of Education's Innovation Cell, Govt. of India.

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

The curriculum delivery is one of the institutional strategic goals to create and maintain an environment for imparting knowledge, skills, concepts, processes, values and attitudes necessary for learners. Conscious and consistent efforts are put to bring about desirable changes in students' learning, abilities and behaviour. Institute prepare academic calendar in line with affiliated university. The course teacher prepare course file, familiarize the students with lesson plan, course objectives and outcomes at the onset of each semester. Lessons are delivered as per the routine followed by presentation with visual aid and teaching through smart techniques. Tutorial classes, laboratory experiments are conducted as per the routine and provide design based assignments and project works. Internal test, quizzes and group discussion are held at regular interval. Remedial classes for weaker students and special classes for brighter students are arranged. Soft skill, aptitude classes are accommodated in the time table. Value added training, industry visit and internship are provided to the students.

Institute formulate "Ready Reckoner" comprises of description of academic activities, target date, performers and reviewing / supervising / monitoring authority. Students' performances are documented, results are analysed, and attainments are calculated. Teachers modify the lesson plan based on the students' feedback.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	https://www.nsec.ac.in/images/Academic-Activities-A-Ready-Reckoner.pdf

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

The institute prepares the academic calendar to ensure academic

discipline and smooth conduction of the continuous internal evaluation process. For preparation of the detail academic schedule, the institute depends on the affiliated University calendar. The institute has also developed a structured format "Academic Activities: A Ready Reckoner" to all, lists out component wise academic activities to be performed during the odd and even semester program including time limit for each work, name of the person responsible and the supervising authority.

Four continuous assessments (CAs) for theory courses and two continuous assessments (PCAs) for laboratory courses are accommodated in the academic calendar for each semester. Normally, two unit tests are considered for any two continuous assessments and rest two from the assignments, quizzes, etc.

Internal Quality Assurance Cell (IQAC) continuously monitors and evaluates the internal evaluation mechanism and plays a pivotal role in enhancing the teaching-learning process by ensuring quality in all operations. The recommendations from various committees and from the management are accounted and subsequently corrective actions are undertaken. Based on the requirement, IQAC cell also formulate quality benchmark policies for improving quality in continuous internal evaluation and for proper implementation of outcome based education.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	https://www.nsec.ac.in/circular/Academic_Calendar_2020-2021.pdf

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

13

File Description	Documents
Any additional information	View File
Minutes of relevant Academic Council/ BOS meetings	No File Uploaded
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)

49

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

49

File Description	Documents
Any additional information	View File
Details of the students enrolled in Subjects related to certificate/Add-on programs	No File Uploaded

1.3 - Curriculum Enrichment

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

Different cross cutting societal issues are addressed by the institution through courses in curriculum, various bodies, programs and policies. The institution has taken much care to introduce a culture in expressing controlled behaviour, discipline, gender sensitization, environmental awareness, moral values, healthy relationship, empathy and sympathy.

The institution caters to all the students from a heterogeneous socio-cultural background; introducing the idea of gender sensitization from the very early days through Orientation and Induction Program. The social issues pertaining to the relationship, caste, decline sex ratio, eve-teasing, racism, sexism, etc. are delicately discoursed through English, Language Laboratory and Universal Human Values courses in the curriculum. Awareness program on gender equality and women's empowerment are undertaken through guest lectures by eminent social workers and psychometric counseling.

The course curriculum also integrated with Environmental Sciences and Biology for Engineers. Students are well exposed to ecosystem, biodiversity and its conservation, renewable and non-renewable resources, environmental pollution and management, pollution control acts. Assignments on home energy saving, green home project, home water saving, rainwater harvesting, best use of recycling services, organic waste, composting, toxics/pollution preventing, waste and consumption, and sustainable living. Campus clean, eco-rallies and green abhiyyan program are conducted under Swachh Bharat.

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

25

File Description	Documents
Any additional information	View File
Programme / Curriculum/ Syllabus of the courses	No File Uploaded
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	No File Uploaded
MoU's with relevant organizations for these courses, if any	No File Uploaded
Institutional Data in Prescribed Format	View File

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

20

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	A. All of the above
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from the following stakeholders Students
Teachers Employers Alumni

File Description	Documents
URL for stakeholder feedback report	https://nsec.ac.in/impdoc/aqar2020-21/1_4_1_Stakeholders_Feedback.pdf
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	No File Uploaded
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/aqar2020-21/1_4_2_Feedback_Report.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

532

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

110

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 students admitted in programs are from diverse backgrounds with different mindsets. In the very first day of orientation cum induction program, students are encouraged to express their problems and elicit other information for the engineering program. The teachers analyze the problem of students especially those who came from non-English medium. An assessment test is carried out to determine the students' potential to achieve their goal. A structured multiple-choice question format based on Mathematics, Physics & Chemistry in three grades (easy, moderate and tough) with negative marking and an English questionnaire to evaluate the students' ability to communicate clearly and accurately in ascientific fashion with fluid and cohesive arguments.

The progress of the students is continuously monitored and evaluated through interactive classroom teaching, daily activities, feedback from the subject teachers and performance in internal tests, assignments, quizzes and end-semester examination. From the above assessment, the slow and advanced learners are identified. Subsequently both the category of students is channelized through separate special programs viz. mentoring system, special coaching, remedial classes, soft skill and aptitude classes, MOOCs courses, Gate tutor, etc.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/page.php?id=492
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
2739	172

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

Institute focused on student-centric learning and provide creative learning environment so that students can think on their own and interact with teachers and peers. The university curriculum provides sufficient scope for experimental learning which has been fully exploited by the institute. The institute has also evolved a number of innovative techniques to enhance experimental learning of the students such as learning through observation, value added training programs, extramural laboratory practices, simulation based laboratories, team based project work, programming proficiency development programmes, tech-oriented courses in collaboration with professional bodies, industry visit and internship.

Participative learning develops aptitude for self-learning and enhances creativity of the students. The methods and policies adopted are: teaching through smart techniques, teach while you learn, seminar and PPT presentation, technical events. Active participation in organizing Technical seminars, Tech Fest, Cultural Programs aids in development of their managerial, leadership and team work capability. IIC and EDC cell inculcate the spirit of innovation and entrepreneurship, support start-up creation through guidance and mentorship, arrange idea to prototype competitions, prototype realization competitions and Hackathons. Analytical and problem solving ability of the students are enhancing through design based assignments and industry related issues, extensive tutorial work, social services in group and collaboration.

File Description	Documents
Upload any additional information	View File
Link for additional information	Nil

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

College has adopted ICT in its teaching-learning process since two decades back. The use of computers, laptops and internet are became a common practice for teachers and students. The college has ICT enabled classrooms which helps the e-learning process. The library is automated and accessible to e-resources vide LIBSYS with unlimited user login. The digital library is a rich collection of NPTEL video lectures and subscription of several e-books, e-journals. The entire campus is Wi-Fi enabled which helps students to stay connected with internet for updated information and tech-oriented learning. Teachers try to make the possible use of technology to improve the teaching-learning process.

Once COVID-19 pandemic affected the traditional teaching-learning, the IQAC immediately felt the need of digital teaching-learning and initiated the process of implementation. The entire faculty fraternity efficiently adopted online platforms and created digital classrooms using G-Meet and Zoom. They have developed e-content and used e-resources. Laboratory experiments conducted using virtual Lab facilities, simulation software and life demonstration. Concerned faculty members provided study materials and assignments in Google Classroom and took quizzes at regular interval. Teachers effectively used ICT enabled tools and resources viz. laptops, smartphones, headphones, virtual boards, internet, video-lectures, audio-lectures, PPT, YouTube links, e-contents, etc.

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****82**

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****172**

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	View File
Any additional information	No File Uploaded
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****60**

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

1795

File Description	Documents
Any additional information	View File
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 carried out as per the schedule in academic calendar. The institute conducts four continuous assessments (CAs) of 25 marks for theory courses and two continuous assessments (PCAs) of 40 marks for laboratory courses in each semester. Normally, two unit tests are considered for any two CAs and rest two from the assignments, quizzes, etc.

Theory courses:

- Course Outcomes (COs) based question paper for unit tests.
- Answer scripts are evaluated and shown to the students within 7 days.
- Answers are discussed in details.
- Tabulated marks are displayed within next 2 days.

Laboratory practices:

- Laboratory reports are evaluated and shown by next lab day.

- Marks awarded for each experiment and handed over to the students along with the corrected laboratory reports.

Sessionals:

- Rubrics based assessment for all assignments.
- Weightages are given on attendance, notebook showing progress of sessional work, final report and viva-voce.

Projects/Seminar:

- The assessment is based on rubrics which clearly outlines the different evaluation criteria and the quality/score
- Weightages are given on creativity, originality, uniqueness and practical benefit aspects of the project, if any.
- Mid-term progress evaluation carried out through power point presentation and report submission.

File Description	Documents
Any additional information	View File
Link for additional information	https://www.nsec.ac.in/circular/Academic_Calendar_2020-2021.pdf

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

The examination related grievances are handled by the institute to the extent which is possible under its jurisdiction. As the institute is responsible only for the internal assessment part, any grievances are dealt internally. If there is any dispute related to the mechanism of the internal evaluation system then that is referred to head of the departments (HODs) as well as the mentor for an amicable solution.

Since internal assessment is very transparent, the grievances are few and their occurrence probability is also low. However, if any such grievance arises related to sessional, practical or unit tests, all are dealt with by the faculty concerned almost immediately. In general checking of the unit tests answer scripts are completed within 7 days and the corrected scripts are shown to the students for clarification of doubts, if any. Finally the unit test marks are published and displayed within next 2 days. If any student not satisfied with the marks awarded even after

clarification by the teacher concerned, student may appeal to the concerned HOD through mentor. The HOD takes necessary measures for reassessment of the answer scripts within a week. Assignments and practical reports are checked and marks awarded within one week.

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.

The primary and fundamental component of outcome based education is the attainment of course outcomes (COs) and is calculated from students' performance in internal continuous assessment and end semester university examination. The course outcomes represent the resultant knowledge, skills and attitudes the student acquires from the course. The course coordinator has defined the course outcomes in consultation with stakeholders if not mention in the university syllabus and the number of course outcomes is around six for each course. While writing course outcomes, Bloom's Taxonomy of Cognitive Skill is considered. These learning outcomes clearly describing the meaningful, observable and measurable knowledge, skills and/or dispositions students should able to do at the end of the course.

Program Outcomes (POs) represent the knowledge, skills and attitudes the students should possessed at the end of graduation. There are twelve such graduate attributes irrespective of the programs defined by National Board of Accreditation (NBA), India. The program specific outcomes (PSOs) are explicit graduate attributes for a particular program and are around three for each program defined by the department. The course teacher prepare course file and familiarize the students with lesson plan, course objectives and outcomes at the onset of each semester.

File Description	Documents
Upload any additional information	View File
Paste link for Additional information	https://www.nsec.ac.in/page.php?id=427
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.

One of the important aspects in Outcome-Based Education (OBE) is the assessment of students' performance and achieving the set attainment for Courses Outcomes (COs) and Program Outcomes (POs). COs define the qualities attained by the students on completion of particular course in each semester. POs are the twelve graduate attributes defined by NBA. The level of CO attainment is measured by the marks scored in internal continuous assessment (X) and University examination (Y). Institute set the attainment levels based on actual percentage of students getting set percentage of marks. Each question is mapped with COs which effectively helps to determine the achievement by each students. The final course attainment as per the set percentage of marks for the theory and laboratory courses as: Theory courses = $0.7 \times X + 0.3 \times Y$ and Laboratory courses = $0.6 \times X + 0.4 \times Y$.

All COs are mapped with POs and attainment of POs is calculated from direct assessment (DA) and indirect assessment (IA). The total attainment of each PO calculated as: Total Attainment (TA) = $0.8 \times DA + 0.2 \times IA$. The results are analyzed and institution adopted methodology to improve upon any PO, if needed, through revision of program, review of pedagogic method, extramural training and feedback.

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

786

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	Nil

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/aqar2020-21/NAAC-SSS-2020-21.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)

2.5

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

24

File Description	Documents
Any additional information	No File Uploaded
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

2

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://nic.mic.gov.in/assets/img/List-of-Innovation-Teams-Selected-for-Grant-Support-with-Incubation-Linkage-18-Nov-2021.pdf

3.2 - Innovation Ecosystem

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

The institute encourages the creative energy of the students to work on new ideas and innovation. The major focuses are to create a vibrant local innovation ecosystem and to develop better cognitive ability for technology students. The NSEC Entrepreneurship Development Cell (EDC-NSEC) started its journey with the aim to inculcate the spirit of innovation and entrepreneurship amongst the young students, encourage and support start-up creation through guidance, mentorship and support. The cell would also spread the message of entrepreneurship and create a culture of entrepreneurship at NSEC campus and beyond.

The Institute Innovation Council (IIC) has been constituted as prescribed by MHRD-IIC to methodically foster the culture of

innovation as a part of curriculum. The council encourages, inspire and nurture the talent of young and creative students to works on new ideas leading to establish an innovative ecosystem in the campus. The innovative minds are attracted through experts talk session, periodic workshops/ seminars/ interactions with entrepreneurs, investors, and professionals. Several Hackathons, idea competitions, mini-challenges with the involvement of industries are arranged for active involvement and even promotes the students to participate in national and state levels. Few amongst the "Job-Seekers" would be converted to "Job- Generators" through the entrepreneurial route.

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

14

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

8

File Description	Documents
URL to the research page on HEI website	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	No File Uploaded

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

37

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

79

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

The institute firmly believes that education is not only confining in classroom activities of students but sensitizing

them to understand the people's life in the society and improve the living of the underprivileged. The objective lies in taking action through community and services in creating head-on sustainable solutions to local and world challenges. The students and faculty members regularly conducts various extension activities in the neighboring community mainly through NSS Unit and NSEC-Rotaract Club. The institute has also adopted five villages under Unnat Bharat Abhiyan along with the existing social activities but all the planned activities could not conduct due to pandemic.

The participation in extension activities transform the outlook of students and enlighten the spirit of social responsibility to create a peaceful society. The Rotaract community looks forward to expanding their professional network and exchanging ideas to cultivate life-long global friendships and highlighting the importance of community service as well as self-service. Even during the ongoing pandemic, several initiatives were taken by the club to provide necessary essentials such as Sanitary Napkins, Rice grains, Pulses, Medicines and Masks and Sanitizers to the underprivileged. A few noteworthy virtual events conducted include - "Soch aur Satark" and "And People Stayed Home".

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/page.php?id=585
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

30

File Description	Documents
Any additional information	No File Uploaded
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

10

File Description	Documents
Reports of the event organized	No File Uploaded
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

95

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

57

File Description	Documents
e-copies of related Document	View File
Any additional information	No File Uploaded
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

5

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.

According to AICTE and affiliated University norms, the physical facilities and infrastructures have been established to support and boost teaching-learning in conformity with best practices in the academia. The campus is spread over 20.29 acres of land with 6,575 square metres of free/air space which facilitates for teaching-learning, career progression, and research. Each department has adequate physical space and academic infrastructure offering excellent and attractive environment for imparting quality education.

The class rooms are well-furnished, ventilated and spacious,

majority of the classrooms are equipped with computer, LCD, webcam, headhone, LAN, and Wi-Fi connectivity. All laboratories are well-equipped and well-maintained with added facilities for conducting extramural experiments. All departments have adequate number of computer laboratories along with one central computer laboratory. Some laboratories equipped with virtual facilities and simulation software for live demonstration of experiments. The college has two state-of-the-art English communication labs, graphics halls, AutoCAD lab and workshops. The institution has multimedia centre equipped with audio-visual equipment and Webinar centre for video conferencing. Central and departmental laboratories are equipped with adequate numbers of instructional resources. Seminar halls and auditorium have LCD facilities and adequate seating capacity. The campus is LAN and Wi-Fi enabled, students can access internet at any point.

File Description	Documents
Upload any additional information	No File Uploaded
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.

Sports are an integral part of education with simultaneous and holistic development of mental and physical health of the students. The huge green-field college playground is the place for outdoor sports facilities includes football court, volleyball court, tennis court, cricket pitch and open space for yoga, etc. A small construction in the same area accommodates gymnasium and drinking water plant for supplying neighbouring locality at very nominal cost. The indoor arrangement within the campus comprises of a badminton court, table tennis, carom, chess, etc. Sports club organizes different sports tournament and conducts annual sports where large number of students and faculties participate in the same. The winners are provided with honours like medals, certificates and trophies. Students are provided with necessary support to participate in inter-college tournaments and university sports program.

The institution is committed to create a balanced atmosphere between cultural and sports activities. The cultural club conducts various cultural events, literary activities and

competitions round the year for students. The college encourages the students to participate in various cultural activities and motivate them to excel in their fields of interests like singing, recitation, sketching, dancing, theatres, short films, photography, etc. The indoor area accommodates various exhibition and festivals.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://www.nsec.ac.in/page.php?id=519

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

44

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	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)

941.34345

File Description	Documents
Upload any additional information	No File Uploaded
Upload audited utilization statements	No File Uploaded
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 well ventilated and open access for Books, Periodicals, Journals, Special Reports, Theses, Indian Standards, Magazines, Newspapers, Question papers of the affiliating university, etc. The area is Wi-Fi enabled having a large air-conditioned reading room with a seating capacity of 100 users. The Central Library has a rich collection of books, print journals, IEEE, CD / DVDs, lecture videos from NPTEL and e-books, e-journals which are accessible from anywhere in the campus. Every semester, new titles and new volumes are being added, new editions of the old books are being procured, and additional e-books, e-journals are being purchased as a part of continuous enrichment.

Name of ILMS software: LSEase (rel.5.0)

Nature of automation: Fully automated

Version: College version

Year of automation: 2006

An e-resources centre has been setup in the library using LIBSYS with unlimited user login. The circulation module covers all operation of circulation, member records with option for printing. The main features of the module are single screen issue, return and renewal along with total details of members with photo and statistical report. The database module helps in database creation and maintenance. A box is kept in the library for suggestion and overall improvement.

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-

A. Any 4 or more of the above

books Databases Remote access toe-resources

File Description	Documents
Upload any additional information	No File Uploaded
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)

0.66

File Description	Documents
Any additional information	No File Uploaded
Audited statements of accounts	No File Uploaded
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

20

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 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 Webinar centre which facilitates the video conference for effective teaching-learning process. The departments of the institution are equipped with 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 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. Library system is controlled by Libsys Software. Students and faculties can access the on-line library system from their nodes. Internal backbone network connectivity had been upgraded from STP to Fibre optics.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://www.nsec.ac.in/page.php?id=492

4.3.2 - Number of Computers

1082

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	No File Uploaded
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)

168.58

File Description	Documents
Upload any additional information	No File Uploaded
Audited statements of accounts	No File Uploaded
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 supervises the regular maintenance and proper utilization of infrastructural facilities of the institute. The maintenance works mainly carried out by trained in-house experts and some are outsourced to external agencies. Equipment and furniture are procured through central purchase committee. Computers and software are upgraded as per the need of the department and market relevance.

All laboratory equipment, computers, library books, pedagogic tools like projectors, laptops, microphones, etc. located in the departments are to be taken care by the HOD. Stock Registers are maintained as regards their procurement prices and other details like location. For expensive items separate log books for utilization are maintained. In case of repair of these items, the HOD is empowered to contact the supplier or servicing centre and

place order after obtaining approval from the authority.

Sports items are replaced on recommendation of the Faculty-in-charge (FIC) of Sports and games. The playground is maintained under the FIC supported by the Estate Maintenance. Student common rooms, general purpose infrastructure and support systems are maintained by the Administrator. All central facilities are under the direct control of the Principal, who is responsible for supervising their utilization and functioning with the help of relevant committees.

File Description	Documents
Upload any additional information	No File Uploaded
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

179

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

179

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/#
Any additional information	No File Uploaded
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

578

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

578

File Description	Documents
Any additional information	No File Uploaded
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 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	A. All of the above								
<table border="1"> <thead> <tr> <th>File Description</th><th>Documents</th></tr> </thead> <tbody> <tr> <td>Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee</td><td>View File</td></tr> <tr> <td>Upload any additional information</td><td>View File</td></tr> <tr> <td>Details of student grievances including sexual harassment and ragging cases</td><td>No File Uploaded</td></tr> </tbody> </table>	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	No File Uploaded	
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	No File Uploaded								
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									
439									
<table border="1"> <thead> <tr> <th>File Description</th><th>Documents</th></tr> </thead> <tbody> <tr> <td>Self-attested list of students placed</td><td>View File</td></tr> <tr> <td>Upload any additional information</td><td>No File Uploaded</td></tr> <tr> <td>Details of student placement during the year (Data Template)</td><td>View File</td></tr> </tbody> </table>	File Description	Documents	Self-attested list of students placed	View File	Upload any additional information	No File Uploaded	Details of student placement during the year (Data Template)	View File	
File Description	Documents								
Self-attested list of students placed	View File								
Upload any additional information	No File Uploaded								
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									
16									

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

23

File Description	Documents
Upload supporting data for the same	View File
Any additional information	View File
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.

14

File Description	Documents
e-copies of award letters and certificates	View File
Any additional information	No File Uploaded
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)

The students of this college are an integral part of all college activities. Students provide necessary input required by the management as they are directly connected and involved in various important processes. The institute extend support and given responsibilities to organize different activities and events. With the objective of inculcating the qualities of leadership and organization, active student bodies are in place along with a strong representation of students in the academic and administrative bodies/committees.

Different student bodies involve in organizing co-curricular and extra-curricular activities under the guidance of faculty representatives. Such platform offers a plethora of opportunities to students to give them a voice of their own and shed their inhibitions through enriching and engaging experiences. Club activities, workshops and intra-domain competitions enhance the communication, team management, time-management, resource management, and leadership skills and above all build confidence in each student.

Various student council:

1. Technical Club-Phoenix
2. Eco Cultural Club
3. Literacy Club
4. Lensified Club
5. Sports Club
6. IEE Students Chapter

7. Google Developers Club
8. GNX Society
9. Code Chef Campus Chapter
10. NSS unit
11. NSEC-Rotaract Club.

Students' representation in Institution bodies/committees:

1. Internal Quality Assurance Cell
2. Library Committee
3. Placement & Training Committee
4. Career Development Council
5. IIC & EDC
6. Internal Complaint Committee
7. Anti-Ragging Committee

File Description	Documents
Paste link for additional information	www.nsec.ac.in/page.php?id=341
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

1

File Description	Documents
Report of the event	No File Uploaded
Upload any additional information	No File Uploaded
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

Alumni are one of the prime stakeholders of the institution. The alumni association started its journey in the year 2008 with the name Netaji Subhash Engineering College Alumni Association (NSECAA). This NSECAA is exclusively for charitable, literacy and educational purposes. The institution is extremely proud of its alumni. Most of them are successful in their careers in profession, higher education and in the field of entrepreneurship. Institute successfully draws supports through Alumni meets on 23rd January each year in College Foundation Day and seeks suggestions for the development of the institution. They share their experiences and knowledge with the ace students and motivate them to achieve their goals. All departments also arrange reunion/alumni meets under the umbrella of NSECAA.

Alumni Contributions:

1. Sharing accomplishments and success stories to current students.
2. Delivering special lecture and motivating enrolled students.
3. Providing suggestion to modernize the existing facilities and upgrade at per industry requirements.
4. Facilitating the industrial training and field visit.
5. Advocating placement, industry visit and internship.
6. Assisting financial support, helping in pre-placement training and placement.
7. Facilitating in collaboration and MOUs with academia and industry.
8. Establishing and fostering community relationship amongst NSEC alumni
9. Providing feedback for academic reform.
10. Contributing professional development as members of IQAC.

File Description	Documents
Paste link for additional information	http://www.alumni.nsec.ac.in/
Upload any additional information	No File Uploaded

5.4.2 - Alumni contribution during the year (INR in Lakhs)	E. <1Lakhs
File Description	Documents
Upload any additional information	No File Uploaded
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	
<p>Board of Governors (BOG) is the supreme authority in respect of all matters concerning the institution - academic, administrative or financial. BOG acknowledges the faculty as the backbone of the institute. Hence instead of a micro level control, it encourages faculty to make decisions and implement them for building a strong academic base in the institute. BOG plays the role of a leader in framing a policy, renders all necessary help to the faculty for implementation of the policy keeping its role restricted mostly to that of a facilitator.</p> <p>Policy laid down by the BOG through the vision of the institute speaks of accomplishment of excellence in engineering and technological education, research and entrepreneurship to render services to the society. The perspective plans to achieve the targets i.e. vision of the institute, are elaborated through the four stages of Mission in sequential order. The plans have been so made that the target is achievable by the faculty with minimal guidance of the BOG, the Management.</p> <p>In the prevailing bottom - top approach of institutional governance, institute is faculty-centric and faculties are empowered to take all decisions regarding academic issues and their implementation within the frame work of the institute's vision and mission.</p>	
File Description	Documents
Paste link for additional information	www.nsec.ac.in/page.php?id=98
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 follows a Bottom-Top approach, pursuance of which results in a decentralized and participative management. It is believed that any problem or issue should be handled at the level of origin by those who are directly involved. Matters only brought to the notice of the hierarchy when it cannot be solved or resources are needed. Quite naturally it starts from pedagogic management of departmental programmes, and related physical and academic resources. However, the guidelines are framed by the department collectively under the guidance of HODs/Deans/Principal. Board of Governors (BOG) has empowered different committees under the guidance of Principal/Director to manage all issues related to academics, their implementation, and administrative problems involving students.

In Institute Committees, majority of the members are faculties. The committee decisions are final and in case of dispute, the BOG is the final authority. For BOG Committee, one professor and one assistant professor are nominated. BOG is the apex body to take final decisions on academic, administrative and financial issues related to the institute. As per the decentralization policy, all academic matters are considered under the purview of Academic Committee (AC) and all academic related policies and quality initiatives by Internal Quality Assurance Cell (IQAC).

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/images/Other-Committee-2016-21.pdf
Upload any additional information	View File

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ perspective plan is effectively deployed

"Pursuit of excellence in Education" has been identified as the first and foremost distinctive feature in the vision of the institute. Several strategic plans conceived and actualized for achieving the goal. One such operational example:

Industry Collaboration and MOU with different Organizations

The institution immensely felt the need of beyond curriculum training for industry readiness where involvement of experts from industry/institute is indispensable. During this period, college signed MOU with different top-notch organizations and some departments signed MOU with universities for academic collaborative research.

1. MOU with NASSCOM: Impart training on latest technologies and already, a couple of workshops were organized by NASSCOM.
2. MOU with Great Learning: Impart training on latest technologies and extend support for placement process.
3. MOU with GTT Foundation: Impart training on GD, interview skill enhancement and Mock PI. Already Mock Interview sessions organized for final year.
4. MOU with TCS: TCS induced B.Tech Programme in Computer Science & Business Systems (CSBS). TCS has designed the syllabus in aligned to need of IT industry. Organize FDP to train faculty.
5. MOU between Department of ECE and A. K. Choudhury School of Information Technology, University of Calcutta: Training and research activities in the domain of IoT and Cyber Physical system.

File Description	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	Nil
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.

Board of Governors (BOG):

BOG is the highest authority with nominated representatives from the Society. BOG is responsible for governance of the institute, frame directive principles and policies, service rules, amend and approve policies, appointment in tiers, and approve budget.

The Administrative Positions as set up by the BOG for administering the academic and administrative activities of the

institution:

1. The Director empowered by Society to supervise the college in close co-ordination with Governing Body and Head of the Institution.
2. The Principal being the head of the Institution is the in-charge of administration and all academic programmes and activities. The Dean and Heads of the Departments support the principal in smooth functioning of academic activities.
3. The Dean supervises the research and development activities and in-charge of academic affairs of the college.
4. The Registrar look-after the administrative activities supported by administrative officer.
5. Student Welfare Officer coordinate co-curricular and extra-curricular activities, and responsible for well-being of the students.
6. Chef Coordinator supervises and monitors the Entrepreneurship and Innovation activities.

Various statutory bodies where faculty representation is maximum; viz. Internal Quality Assurance Cell, Academic Committee, Finance Committee, Anti-ragging committee, Internal Complaint Committee, Grievance and Redressal Committee for smooth conduction of academic and administrative activities.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/images/Service-Rules.pdf
Link to Organogram of the institution webpage	www.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	No File Uploaded
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 following welfare schemes for teaching and non-teaching staffs are in vogue in the institute.

1. Welfare Cooperative name Netaji Subhash Engineering College Employees Cooperative Credit Society Ltd. has formed with the objective to create funds for lending money to its members.
2. Medical facilities:
 - Free treatment on working days at the Medical Unit of the institute
 - Free ambulance facility for employee and family from home.
1. Children's education:
 - All employees enjoy a concession in children's education, if their wards study in the TIG managed Techno Model School.
1. Study leave:
 - Special facility to the regular faculties "leave on without pay basis" for updating their knowledge and experience and for upgrading qualification.
1. Other employee benefits:
 - Provident fund to all eligible employees covered under EPF scheme as per applicable rules
 - All eligible employees covered by ESI as per ESI Act.

1. Employees' Group Insurance Scheme:

- Employees whose salary account in Axis Bank Ltd covered under TATA AIG group medicare.

1. Policy for support to career development:

- Concession to teaching loads and special leaves granted as and when needed for carrying out higher studies, research, pursuing Ph.D or professional development like training or visits to industries, etc.
- Technical staff members are encouraged for enhancement of their qualifications.

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**

2

File Description	Documents
Upload any additional information	No File Uploaded
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**

2

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	No File Uploaded
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

26

File Description	Documents
IQAC report summary	View File
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	No File Uploaded
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

Performance Appraisal for all teaching and non-teaching staff is mandatory for confirmation of service and promotion. It depends on the Annual Performance Review (APR) by Director/Principal and Head of the Departments followed by personal appraisal held by

the Appraisal Committee. A well-formulated mechanism is in place to review periodically the progress and quality of teaching and non-teaching staffs.

A Self-Appraisal Form (SAF) is to be filled in by an employee desirous of being appraised for promotion. The regular employees are eligible for promotion and contractual employees are not. However, the latter categories are eligible for increments post successful performance before the appraisal committee. An SAF will carry the following details to be filled in by the employees concerned. Its validity is normally for a year. The contents are:

- Employee details
- Qualifications
- Description of job carried out in details
- Achievements
- For faculty: academic, professional membership, research and guidance, publications, technological developments and contributions.
- For non-teaching staff: job related proficiency, commendable services rendered and contributions.

An employee awarded with poor/unsatisfactory rating in any of the last three APRs will not be eligible for promotion unless he/she had acquired two excellent ratings, one of which has to be in the last APR.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/impdoc/635.pdf
Upload any additional information	No File Uploaded

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 has a transparent mechanism for internal and external audit as per the government rules. Institute conducts internal and external audit annually.

1. Internal Audit:

The audit team consists of:

- Qualified auditor from Corporate (Society's) Office nominated by the BOG
- Institute Accountant
- Office Assistant attached to institute account's section

Institute account section provides all necessary records of income-expenditure vouchers, approval documents, approved budget, etc. to the team. This includes revenue generated from all sources for the college. The internal auditor does a thorough check and verification of supporting documents including fee receipts and payment vouchers of the transaction carried out in each financial year. The auditor also ensures that all payments are duly authorized. A statutory audit report is prepared and submitted to the college management for review.

1. External Audit:

External audit is carried out every year by the corporate office. On submission of the internally audited accounts to the corporate office, the accounts are arranged to be audited by a chartered accountant appointed by the board of trustees. Institute's accounts are examined as those of a group's (Society's) subsidiary. The institute accountant is also asked to be present.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

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

For a self-financing educational institute, the major revenue is raised from students' tuition fees i.e. semester fees. IQAC has categorized specific activities for mobilization of funds and resources on top of the regular fund flow activities i.e. teaching-learning process.

Strategies for mobilization of funds:

1. Tuition fees collected from students for carrying out Teaching-Learning processes
2. Add-on fees for inculcation of Professional Skill, Soft Skill, Value Added Training Programs, Industrial Training, etc.
3. Grants for Research and Development activities, consultancy, organizing seminars and conferences, faculty development programs from Government and Non-government bodies/industries.
4. Endowments for Scholarships and Awards for academic excellence
5. Donations from alumni/employers/stake holders/well-wishers for specific activities
6. Revenue collected from Library Fines, deduction from Caution money for replacement of equipment/infrastructure, etc.
7. Rental fees collected from recruiting agencies like IT companies, Banking Services, DRDO, or for academic exercises like WBJEE, IITJEE, IIT GATE, etc.
8. Rental from commercial organizations like Bank, Food Court located in institution's premises-a mutual benefit scheme.

Optimal Utilization of Resources:

1. Sharing of the infrastructure working within the guide

lines of the Regulatory Bodies.

2. Sharing of laboratories, classrooms, pedagogic tools, etc. by different departments.
3. Sharing of spare-able resources for second shift programs.
4. Utilization of resources by external professional bodies especially during holidays.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

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

IQAC takes the onus of assuring and maintenance of quality of the academic and administrative activities of the college. Quite a few best practices have been institutionalized as a result of IQAC initiatives. Based on present perspective and current industry requirements, two recently institutionalized practices are:

1. Professional Skill Sets of Students:

Specially designed training programs to enrich students with the current trends of the industry and make them industry-ready and employable. The domain covers need based value added training programmes, programming proficiency development programmes, soft skill and aptitude training. The motto of the later is to build basic concepts in enhancing quantitative, verbal and reasoning ability. The key areas focussed on conversation skills, group skills, critical and creative thinking, emotional skills, positive thinking and vocational skills. All departments exclusive practiced and implement the programs.

1. Digital Teaching-Learning:

Due to Covid-19 pandemic, IQAC immediately envisage the use of technology enabled educational online system to support learning and teaching at the best path and pace. The effective use of online platforms and e-resources are the best possible alternative to compensate the traditional classroom learning. The entire faculty fraternity efficiently implemented online

platforms and instill confidence in students in term of its utility.

File Description	Documents
Paste link for additional information	www.nsec.ac.in/page.php?id=574
Upload any additional information	No File Uploaded

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

IQAC reviews the quality of teaching learning by analyzing the feedbacks collected from the stakeholders at periodic interval and learning outcomes from the attainment of course outcomes, program outcomes and program specific outcomes. Based on the information received, incremental improvement made in two broad areas as follows:

1. Effective use of ICT in teaching learning

1. Majority of the classrooms and laboratories are fully equipped with ICT facilities.
2. New classrooms and laboratories which have been created are equipped with multimedia with projected and white board as screen.
3. All classrooms and laboratories are LAN connected and Wi-Fi enabled.
4. Audio-visual facilities have been created in each department to facilitate the teacher to record their lecture.
5. Teachers used ICT tools to prepare and deliver their lectures through PPTs, audios and videos.
6. All the academic administrative activities were carried on using licensed version of Zoom.
7. All faculty members have created digital classrooms through Google Workspace using college domain id and all classes are conducted online.
8. Teaching-learning processes, assessment, parent-teacher meeting etc. are organized using these online platforms.
9. Laboratory experiments are also organized using virtual Lab facilities, simulation software environment and live demonstration of experiments by faculty and academic staff fraternity directly from Laboratories.

10. Students Clubs and Professional Chapters viz. IEEE Students Branch Chapters, Google Developers Club, GNX Society organize a numerous webinars using online platforms where academicians from across the globe and top-notch industry people interacted with students.

2. Enriching Induction Program

College has the rich legacy of conducting Induction programme for the fresh students who enter the college in the first year of their undergraduate studies in various courses, even before this was made mandatory by AICTE. The programme is critically designed and consisted of an Orientation Programme followed by:

1. Industry Outreach Talks by eminent persons from various industries,
2. Alumni sessions by various alumni of different departments who are well placed in different reputed industries, research laboratories and Universities in India and abroad,
3. Master classes by very well-known and stalwarts of Engineering and science education,
4. Motivational sessions
5. Session on Art of Living
6. Boot camp on First step towards professional career
7. Boot Camp on Soft skill in industries
8. Boot camp on cyber security and ethical hacking
9. Bridge course on Physics and Mathematics
10. Entrepreneurship development program by Wadhwani Foundation

Also the students are made aware about the University related affairs, Massive Open Online Courses (MOOCs) and Mandatory Additional Requirements (MARs) for acquiring B. Tech with Honours degree from MAKAUT. Further, senior students' representatives' from different students' club like Lensified-The photography club, Rotaract unit and NCC unit of NSEC interact with students.

File Description	Documents
Paste link for additional information	https://www.nsec.ac.in/page.php?id=574
Upload any additional information	No File Uploaded

6.5.3 - Quality assurance initiatives of the institution include: Regular meeting of

A. All of the above

**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)**

File Description	Documents
Paste web link of Annual reports of Institution	https://www.nsec.ac.in/page.php?id=574
Upload e-copies of the accreditations and certifications	View File
Upload any additional information	No File Uploaded
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 religiously looks into the matter of providing academic and non-academic help to students irrespective of their socio-cultural and sexual identities and orientation. The selection process and admission purely based on merit irrespective of the gender. The institution integrates special programmes for gender sensitization through orientation cum induction program for newly admitted students. A lady psychologist offers counseling and guidance to the students, the faculty advisors and their mentors. The social issues pertaining to the relationship, caste and gender discrimination are delicately discoursed through English and Language Laboratory courses in the curriculum.

The women grievance cell of the institute looks after the issue pertaining to women in particular. The institution in collaboration with Gender Benders, a social group led by people of various layers of academic practices, organizes numerous workshops, seminars and conventions. It is worth noticing that

the female faculty strength counting to a bare minimal of less than 40%; it has dexterously channelized its female power by ensuring their involvement in almost all the functioning committees. Every year, mass awareness program on gender equity organized on International Women's Day. Separate common rooms catering to the needs of both boys and girls are sufficiently furnished and well-maintained.

File Description	Documents
Annual gender sensitization action plan	Nil
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	Nil

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

C. Any 2 of the above

File Description	Documents
Geo tagged Photographs	No File Uploaded
Any other relevant information	No File Uploaded

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 routine operations conducted in the college have very less impact on the environment. The college is keenly vigilant to generate waste as low as possible. Especially design hoardings are used to minimize the usage of natural resources; water, electricity etc. However, regarding the waste management following measures are taken:

1. Solid Waste Management:

Solid wastes generated from different sources are segregated through colour specific waste-bins. Disposal carried out through local civic authorities.

- Green Waste-bins for biodegradable wastes
- Blue Waste-bins for non-biodegradable wastes
- Red Waste-bins for specific laboratories

1. Liquid Waste Management:

Sewage and effluents from canteen discharge through normal sanitary system. Laboratory waste particularly in Chemistry and environmental laboratory are disposed with special care and proper precautions.

1. E-Waste Management:

This includes motherboards, memory chips, compact discs, cartridges, batteries etc. generated by electronic equipment such as Computers, Phones, Printers, UPS, Fax and Photocopy machines. The E-wastes thus generated are recycled as far as possible and usages of spare-parts from old machines are diligently practiced. However, E-waste generated from hardware and condemned materials which cannot be reused or recycled are stored in a separate safe zone and disposed centrally through scrap dealers and authorized vendors.

Hazardous Chemical, Biomedical and Radioactive waste are nil.

File Description	Documents
Relevant documents like agreements / MoUs with Government and other approved agencies	No File Uploaded
Geo tagged photographs of the facilities	No File Uploaded

**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**

B. Any 3 of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	No File Uploaded
Any other relevant information	No File Uploaded

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	No File Uploaded
Various policy documents / decisions circulated for implementation	No File Uploaded
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

B. Any 3 of the above

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	No File Uploaded
Certification by the auditing agency	View File
Certificates of the awards received	No File Uploaded
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

B. Any 3 of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	No File Uploaded
Policy documents and information brochures on the support to be provided	No File Uploaded
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 provides an inclusive environment with no discrimination among different religions, castes, languages, genders, cultures or economic status. It offers equal opportunity to everyone right from the very first day i.e. the admission is strictly on the basis of merit. Starting from the First Year

induction programme, these values are emphasized and frequent organized awareness programmes. In addition suitable posters and displays are spread all over the campus regarding gender equity, brotherhood and behavioral improvement. The institute celebrates the cultural and regional festivals to teach tolerance and harmony to the students.

All round development of students is encouraged through mentoring, guidance and participating in Rotaract community services, Hackathons, Tech Fest, etc. A sizeable number of students are from other states. The students' sports club, photography club and eloquence-the literacy club organized different activities to promote harmony towards each other. International Women's Day, Yoga Day, etc. celebrations also promote tolerance and harmony. Anti-ragging Cells are instituted to take care of ragging issues. Two-tier disciplinary Committee - at the Departmental level and at the institute level takes care of gross indiscipline amongst the students. Anti-Sexual Harassment Cell chaired by a Woman Faculty looks into all sexual indiscrimination cases in the College.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	No File Uploaded
Any other relevant information	No File Uploaded

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

The first step towards sensitization of students and employees of the institution to the constitutional obligations is formulation of rules and regulations approved by the Board of Governors, strict observance of the rules, and constitution of a Grievance Redressal Cell in case of any violation. The rules and regulations are so framed that they are applicable to all irrespective of gender, creed and culture. Right to Information Cell takes care of maintenance of transparency.

The employees are mature enough to know their right, duties and responsibilities as citizens. It is the students who are still young needing awareness programmes. The awareness starts from

conduction of Induction programme. They are told about their values, rights, duties and responsibilities as citizens of India. Further input comes from the classroom teaching and the curriculum includes a compulsory course on Constitution of India or Essence of Indian Knowledge Tradition. The institute celebrates Independence Day, Republic Day, Netaji Jayanti, Gandhi Jayanti and Constitution Day to mark the importance of freedom and glory of Indian freedom fighters. The institute also arranges Blood Donation Camp to save life, celebrates Woman Day to mark the achievements of women and World Environment Day to aware pollution issues.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	Nil
Any other relevant information	Nil

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

B. Any 3 of the above

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	No File Uploaded
Any other relevant information	No File Uploaded

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

Various festivals are celebrated in the college campus such as Holi, Bengali New Year, Rabindra-Jayanti, Monsoon-onset (Borshamongol), Dussera (Bijoya Dasami) etc. The greatest of all the celebrations take place on the birth anniversary of Netaji Subhash Chandra Bose, which happens to be the Foundation Day of the college. A cultural programme is organized preceded by the hoisting of the flag and march-past by the security personnel of the college, keeping in mind the patriotic essence of the day. Moreover, the college takes this auspicious opportunity to give away prizes of excellence to students and faculty members and other staffs.

Students organize and participate in competitions, cultural events and college fests through various institutional clubs, the biggest of all being 'Avenir', the tech-fest organized by tech-club Phoenix. This gala event is a three-day extravaganza, showcasing the creative talents of the students on a wider platform.

International Women's Day is celebrated to highlight the achievements of women. The students enthusiastically design and display posters on the theme. The day also marks a call to action for accelerating gender parity. College also celebrates Teachers Day, Environment Day, Earth Day, World Water Day, National Science Day, Forensic Science Day, Ozone Day, etc. every year.

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	No File Uploaded
Geo tagged photographs of some of the events	No File Uploaded
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.

BEST PRACTICE: 1

1. Title of the Practice

Enhancement of Skill Sets of Students

2. Objectives of the Practice

Specially designed training programs to enrich students with the current trends of the industry and make them industry-ready and employable.

3. The Context

Build basic concepts in enhancing quantitative, verbal and reasoning ability. The key areas focussed on conversation skills, group skills, critical and creative thinking, emotional skills, positive thinking and vocational skills.

4. The Practice

Soft skill development training programs in association with Global Talent Track, Aptitude skill training programs by eminent experts, Tech oriented online courses with Great Learning, current industry demands programs in collaboration with EPAM, focused training programs by Accenture, special training programs by TCS and programming proficiency development programmes for pre-final year by the experienced faculty members.

The uniqueness of these training sessions lies in how a wide range of relevant issues are raised, relevant skills discussed and tips for integration provided in order to make candidates effective in workplace and social environments.

5. Evidence of Success

Employability skill development programmes are being conducted by experts from various industries and industry bodies through MOU. Students empowering themselves through these multifarious training and becomes a competent professional to face the highly

competitive corporate world. The placement statistics is fabulous during Covid-19 pandemic. More students successfully crack and secure their position in the campus recruitment selection process as well as in higher studies.

6. Problems Encountered and Resources Required

Design and develop tailor-made training programs that spark curiosity and motivate the learners. The trainers' approach that play a critical role to engage students and of course the commitment of participants. Persons with key experience can only create a real and practical environment through examples and case studies.

7. Notes (Optional)

At present day scenario, employability opportunities of graduates are mostly depends on IT industry. Programming proficiency development training programs can enhance the programming skills among all students and make them employable in IT industry.

BEST PRACTICE: 2

1. Title of the Practice

Digital Teaching Learning

2. Objectives of the Practice

Technology enabled educational procedure for effective use of online platforms and e-resources to support learning and teaching at the best path and pace.

3. The Context

Under the threat of Covid-19 pandemic, Institute has adapted online platforms quickly and efficiently for teaching-learning to fill the gap created by suspended traditional classroom activities. The institution offers courses online and to instill confidence in students in term of its utility.

4. The Practice

This comprises the application of a wide spectrum of practices including blended and virtual teaching-learning. All faculty members have created digital classrooms through Google Workspace using college domain id and all classes are conducted online. Laboratory experiments are organized using virtual Lab facilities, simulation software and life demonstration. The tools and e-resources used viz. webcam, virtual whiteboard, digital writing pad, digital pen, PPT, online video, video lecture, e-books, e-notes, NPTEL course materials, simulation software, etc.

5. Evidence of Success

All courses in the curriculum for odd and even semester are completed using digital platform. Concerned faculty members provided study materials, assignments in Google Classroom and take MCQ test at regular interval. Students can access videos that provide instruction on a wide variety of topics at various skills levels and participate in real-time video conferences with teachers. Course coverage and performance of the students in the end-semester examinations are highly satisfactory. Students' feedback is also taken online.

6. Problems Encountered and Resources Required

Digital learning is unfavorable for poorly performing students or who receive less structured educational supports at home. It is likely to benefit students differently depending on the availability of internet access and speed.

File Description	Documents
Best practices in the Institutional website	www.nsec.ac.in/page.php?id=612
Any other relevant information	<p><u>BEST PRACTICE: 2</u></p> <p><u>1. Title of the Practice</u></p> <p><u>Digital Teaching Learning</u></p> <p><u>2. Objectives of the Practice</u></p> <p><u>Technology enabled educational procedure for effective use of online platforms and e-resources to support learning and teaching at the best path and pace.</u></p> <p><u>3. The Context Under the threat of Covid-19 pandemic, Institute has adapted online platforms quickly and efficiently for teaching-learning to fill the gap created by suspended traditional classroom activities. The institution offers courses online and to instill confidence in students in term of its utility.</u></p> <p><u>4. The Practice</u></p> <p><u>This comprises the application of a wide spectrum of practices including blended and virtual teaching-learning. All faculty members have created digital classrooms through Google Workspace using college domain id and all classes are conducted online. Laboratory experiments are organized using virtual Lab facilities, simulation software and life demonstration. The tools and e-resources used viz. webcam, virtual whiteboard, digital writing pad, digital pen, PPT, online video, video lecture, e-books, e-notes, NPTEL course materials, simulation software, etc.</u></p> <p><u>5. Evidence of Success</u></p> <p><u>All courses in the curriculum for odd and even semester are completed using digital platform. Concerned faculty members provided study materials, assignments in Google Classroom and take MCO test at regular interval. Students can access videos that provide instruction on a wide variety of topics at various skills levels and participate in real-time video conferences with teachers. Course c</u></p>

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

Entrepreneurship is one of the priority and thrust area cited in the vision of the Institute. The NSEC Entrepreneurship Development Cell (NSEC-EDC) started its journey with the aim to inculcate the spirit of innovation and entrepreneurship amongst the young students of this institute, encourage and support start-up creation through guidance, mentorship and support. Students are encouraged to take up innovative projects with possibility of commercialization. With faculty already trained in the nuances of entrepreneurship, the presence of NSEC-EDC would create a vibrant entrepreneurial culture amongst the students.

Institution Innovation Council (IIC) and EDC of NSEC has organized a series of events based on entrepreneurship, idea to prototype competitions, prototype realization competitions, Hackathon, Entrepreneurial Talk, 3-months training programme on entrepreneurship development among students etc. During pandemic, IIC of NSEC in collaboration with IEEE and CII has organized several webinars by Industry Professionals. The institute has selected as Mentor Institute by Innovation Cell of MHRD & MoE, Govt. of India, selected as Host Institute - Business Incubation (HI-BI) Centre by MSME, Govt. of India and IIC of institute received 5-Star rating in IIC2.0 during September 2020 & 3.5 Star IIC3.0 during December 2021 from Ministry of Education's Innovation Cell, Govt. of India.

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

IQAC has identified the following plans of action for the next academic year:

1. Facilitate continuous upgradation of knowledge and use of technology by both the students and teachers.
2. Augmentation of infrastructure and digital teaching-learning facilities.

3. Facilitate research culture by promoting interdisciplinary research and encourage for sponsored research work, paper publication and IPR activities.
4. Fresh NBA accreditation of four programs viz. BME, CSE, ECE & EE.
5. IIC and EDC innovative activities and quality research involving students.
6. Improved Student Professional Chapters activities and CSR programs for the benefits of the community and other stakeholders.
7. Introduce some more industry oriented and skill based training programmes.
8. Give additional thrust to internship and field projects for students and campus placement initiatives.
9. Enhanced activities on MOOCs certificate courses, competitive examinations and career counseling.
10. Arrange FDP, seminar, conference, workshops, invited talk and webinars.
11. Increase alumni involvement in course delivery and training programmes.
12. Initiative for collaboration, MOU and industry involvement in training programs.
13. Opting for inclusion in different ranking frameworks.
14. Revision of existing of college policies and adaptation of new policies.
15. Promote digital marketing; arrange school outreach programmes and networking.
16. Implementation of TCS-iON - ERP solution for academic and administrative activities of the college.