Yearly Status Report - 2018-2019

Part A	

Data of the Institution

1. Name of the Institution	NETAJI SUBHASH ENGINEERING COLLEGE
Name of the head of the Institution	Tirthankar Datta
Designation	Principal
Does the Institution function from own campus	Yes
Phone no/Alternate Phone no.	033-24364929
Mobile no.	9830422806
Registered Email	naac.nsec@gmail.com
Alternate Email	principal@nsec.ac.in
Address	Techno City, Panchpota, Garia
City/Town	Kolkata
State/UT	West Bengal
Pincode	700152

2. Institutional Status

Affiliated / Constituent	**Affiliated**
Type of Institution	**Co-education**
Location	**Semi-urban**
Financial Status	**private**
Name of the IQAC co-ordinator/Director	**Prof. (Dr.) Sukumar Roy**
Phone no/Alternate Phone no.	**03324361285**
Mobile no.	**9433408287**
Registered Email	**naac.nsec@gmail.com**
Alternate Email	**sroybme@gmail.com**

3. Website Address

Web-link of the AQAR: (Previous Academic Year)	http://www.nsec.ac.in/page.php?id=512

4. Whether Academic Calendar prepared during the year

	Yes
if yes,whether it is uploaded in the institutional website: Weblink :	http://www.nsec.ac.in/page.php?id=557

5. Accrediation Details

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	**B+**	**2.52**	**2019**	**26-Mar-2019**	**27-Mar-2024**

6. Date of Establishment of IQAC

6. Date of Establishment of IQAC	**12-Jun-2013**

7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Prepare policies and rules related to various institute activities	**27-Apr-2019** **30**	**12**
Development of software on-line students feedback	**05-Nov-2018** **30**	**1235**

collection, analysis and evaluation for preparedness, class performance, responsiveness, effectiveness and overall grade for teachers		
On-line Aptitude and Domain Knowledge Technical Test (Mock) for enhancing the employability skills of students.	24-Aug-2018 365	1515
Academic Audit by external experts	18-Jul-2018 3	165
NSEC-CII innovation club: A series of workshops, Hult prize, prototype exhibition and competition, etc.	20-Jul-2018 365	1125
Career Development Cell: Career enhancing on-line programmes	07-Nov-2018 2	84
Back To Class Program : Alumi interaction and lectures	26-Feb-2019 12	528
International Exchange Program for the participants from KUMS & KPU, Afghanistan supported by USWDP, UMass.	16-Sep-2018 15	30
Introduction of soft skills and aptitude classes in regular class routine	12-Jul-2018 365	3156
Mandatory inclusion of mentoring classes in normal routine for professional, career advancement and course specific guidance	12-Jul-2018 365	3156
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8. Provide the list of funds by Central/ State Government- UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Netaji Subhash Engineering College (NSEC)	TEQIPI	World Bank	2005 1460	74780000

Dr. P.P.Bhattacharya, ECE, NSEC	RPS	AICTE	2006 730	200000
Dr. P.P.Bhattacharya, ECE,NSEC	Fast track career young scientist scheme	SERC, DST	2008 1095	582000
Dr. Sudipta Nath, EE, NSEC	Young Scientist	DST	2008 1095	300000
Dr. Sudipta Nath, EE, NSEC	Career Award	AICTE	2009 1095	1050000
Dr. Sukumar Roy, BME, NSEC	RPS	DST, WB	2012 1095	533000
Electronics & Communication Engineering Dept., NSEC	MODROBs	AICTE	2017 730	960000
Biomedical Engineering Dept., NSEC	MODROBs	AICTE	2017 730	360000
Electrical Engineering Dept., NSEC	MODROBs	AICTE	2019 730	1475000
Netaji Subhash Engineering College	Seminar Grant	AICTE	2017 3	100000
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9. Whether composition of IQAC as per latest NAAC guidelines:	**Yes**
Upload latest notification of formation of IQAC	View File
10. Number of IQAC meetings held during the year :	**4**
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	**Yes**
Upload the minutes of meeting and action taken report	View File
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	**No**

12. Significant contributions made by IQAC during the current year(maximum five bullets)

- Proposal submitted for recognition as Host Institute for implementation of the scheme Support for Entrepreneurial and Managerial Development of MSMEs through

Incubator has been considered approved during Meeting of PMAC held on 20/12/2019 at New Delhi.

- Institution Innovation Council (IIC) was formed under MHRD's Innovation Cell, GOI. Two full golden stars are achieved in first two quarters by IIC of Netaji Subhash Engineering College for organizing successfully various events on Entrepreneurship, Design workshop, Smart India Hackathon, Entrepreneur's Talk, Idea to Prototype Competition, B Plan Competition etc. as per guidelines of MHRD's Innovation Cell, Govt. Of India. In the first quarter, we scored 21.65/25 and in this quarter 23.32/25 and as a whole 44.97/50.

- Arranged 23 Winter Internships (Paid) in Start-ups and other industries.

- Internationally acclaimed Ten (10) IEEE Professional Students' Branch Chapters & Prof. Subrata Biswas of Electrical Engineering department was awarded as IEEE PES outstanding chapter volunteer.

- One patent by the students and faculty was published on Patent Journal & another two patents by the students were filed.

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

Plan of Action	Achivements/Outcomes
National and International Seminars	A one day seminar on "Is Blockchain an invention or a disruption?" organized by ECE dept. of NSEC on 17th March, 2019. Speakers: Mr.Gourav Sarkar and Mr.Sayantan Roy- alumnus, ECE. One day International Seminar on Robotics organized by IT, CSE & ECE dept of NSEC on 25th February, 2019. Speaker : Dr. Monica Anderson, Associate Professor; the University of Alabama, USA
On-line Students Attendance Software and system	Attendance software "SARTHAK" was developed and implement with features: Student ID, University Roll Number & Registration No. and Sorting Options; Downloadable Attendance Report in .csv format; Auto-generated SMS, WA to guardian and student for consecutive 3 days / class absentees; Send e-mail option to students and guardian.
Students participation in different National Innovation Contest	1st prize in 3M- CII Young Innovators Challenge Award 2019 at Bangalore in PRODUCT INNOVATION Division for their product "WHITE COAL" from Jute Stick. They won the prize money of Rs. 3 Lakh along with Trophy. Finalist (2 team) in SIH Hardware 2018-19, Top 4 in SIH

	Software 2018-19, 3rd ranked in IIEST Innovation, shortlisted (2 team) in Women Hackathon 2019, International Block Chain and Intel Hackathon AI.
Initiatives of CII-NSEC club and participation of students in Hackathon	CII-NSEC Innovation Club under EDC organized Table Top Prototype Exhibition on 6th February 2019. 18 (Eighteen) prototypes were exhibited and a delegation team from ITALLY accompanying by CII members from eastern region visited this competition. EDC organized Hult prize 10th Annual Challenge "For Us By Us" idea to Prototype on Campus Event, 46 team comprising 186 students participated in the event & 1st round competition of ITF Hackathon.
Internship and Field Projects	The Institute and Training & Placement Cell striving hard for providing internship and field projects for students in getting real time professional experiences. 85 students completed internship in 33 reputed organizations whereas 19 students completed their field projects in 7 organizations.
NPTEL Local Chapters and Massive Open On-line Certification Courses	Institute is one the local chapter of NPTEL and continued position in top 100 colleges in India with a rating of A. A large number of students and faculty members pursued certificate courses and among them 40 participants are in all India topper rank holder (16 in top 5%, 13 in top 2% and 11 in top 1%).
Introduction of On-line students' feedback system	A group of experienced and young faculty members of Information Technology department has developed and incorporated for the first time for the regular teaching learning process and Value Added Training was incorporated for the first time in the institute. Students having above 50% attendance in class and above 80% attendance in VAT were eligible for same and around 73% of eligible students participated in the process.
Implementation of modified version of ERP system	The existing ERP system version V.1.0 has been modified. The version V.2.0 is implemented for enhancing the practice of paperless communication in the institute.
Submission of compliance report to NBA for reaccreditation of four (04) B.Tech programmes	Compliance reports for reaccreditation for four programmes viz. B.Tech in Biomedical Engineering, Computer Science Engineering, Electronics Communication Engineering and

	Electrical Engineering were submitted on 8th March, 2019. An Expert Team conducted data verification of the programs on 27th May, 2019 and all programmes four programmes reaccredited for the Academic Years 20192020 to 20212022 i.e. upto 30062022.
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14. Whether AQAR was placed before statutory body ?	**Yes**

Name of Statutory Body	Meeting Date
BOG	**28-Jan-2020**

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	**Yes**
Date of Visit	**26-Mar-2019**
16. Whether institutional data submitted to AISHE:	**Yes**
Year of Submission	**2020**
Date of Submission	**13-Feb-2020**
17. Does the Institution have Management Information System ?	**Yes**
If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	**The institution has smart Management Information System TECHTRON ERP College Management V.2.0. The academic and nonacademic activities are well implemented through MIS. Viz. College Admission: ? Register Information ? Students Details ? Automatic Student ID Generation ? Account Details ? Registration Report ? Fee Structure Report ? Discount Report ? Payment detail Search by ID ? Refund Report ? Bank Loan Scholarship Tagging Report Purchase Management: ? Add New Requisition ? Requisition Type ? Justification ? Work/Supply Status Training Placement: ? Training Master List, ? Training Budget Master List, ? Placement Company Master List, ? Student Training Appeared Detailed List, ? Placement Eligible Candidate List, ? Placement Appeared List.**

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Planning and Implementation

1.1.1 – Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words

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. The course teachers frequently assess and document learner achievement, modify instruction to improve learning attainment, participate in revision activities. The academic activities focus on mainly three strategic areas: • Instructional Planning: The central purpose is to promote student learning and satisfactorily achieve the learning objectives. The plan includes evidence-based teaching practices, assessment and reporting procedures. ? Prepare academic calendar in line with affiliated university. ? Formulate the Academic Activities: A Ready Reckoner which consists of description of activities, target date, performers and reviewing / supervising / monitoring authority. ? Prepare and update lesson plan and course file. It includes Vision and Mission of the Institute and the Department, PEOs, POs, PSOs, syllabus copy, COs, lesson plan, mapping of COs with POs and PSOs, handout, lecture notes, copies of PPT, question papers, assignments, result analysis and attainment level. ? Prepare outcome based question bank and rubrics for evaluation. ? Prepare schedule for sustainable skill development program, soft skill, value added training program, career development. ? Develop schedule for Induction Program and Bridge Courses. ? Strengthen self-learning / learning beyond syllabus: e-books, IEEE on-line journals, NPTEL (MOOC) courses, IITB Spoken tutorial courses, CDs of video lectures. • Instructional Delivery The students are appropriately exposed to each course over the semester through teaching-learning processes. Teachers are involved in communicating the lesson to the students using the designed teaching model/strategies. The classroom management and mentoring get prioritized. ? Familiarize the students with lesson plan, course objectives and outcomes at the onset of each semester. ? Deliver formal classroom lectures followed by presentation with visual aid and teaching through smart techniques. ? Conduct extensive tutorial activity and laboratory experiments. ? Provide design based assignments, project works and seminars. ? Conduct internal test, quizzes and group discussion. ? Arrange value added training, industry visit and internship. ? Arrange social service in group and collaboration. ? Remedial classes for weaker students and special classes for brighter students. ? Arrange invited lectures by academician and industry persons on latest technologies. • Evaluation: This involves data collection on the unfolding curricular materials in order to take decision on its efficacy or otherwise. The stated objectives are analyzed /ensured by documenting the attainment of course outcomes, program outcomes and program specific outcomes. Effectiveness of teaching is assessed through: ? Direct Assessment : 2 Assignments, Quizzes, Internal Assessment Test, Session End Evaluation 3 Internal & End Semester Result Analysis and attainment of course outcomes. 4 Project and Seminars ? Indirect Assessment: 1 Feedbacks from students' exit survey, graduate survey, alumni survey, guardian survey and employers' survey. 2 Feedbacks from accreditation and professional bodies.

1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entreprene	Skill Development

				urship
NPTEL IITKgp	01/07/2018	120	Core and Software Industry	Communication, analytical and programming
IITB Spoken Tutorial	16/07/2018	90	Software Industry	Programming
NPTEL IITKgp	01/01/2019	120	Core and Software Industry	Communication, analytical and programming
IITB Spoken Tutorial	16/01/2019	90	Software Industry	Programming

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
BVoc	REFRIGERATION AND AIR CONDITIONING	02/07/2018
BVoc	AUTOMOBILE SERVICING	02/07/2018
BVoc	GRAPHICS AND MULTIMEDIA	02/07/2018
BVoc	SOFTWARE DEVELOPMENT	02/07/2018
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1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
MBA		01/08/2018

1.2.3 – Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	1125	0

1.3 – Curriculum Enrichment

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Android App Development	04/02/2019	112
Python with Django	02/02/2019	103
MEAN Stack Development	19/02/2019	48
Python IOT (Arduino)	15/01/2019	108
Familiarization of Digital Electronics and various sensor used in Biomedical equipment	27/01/2019	31
Remote Sensing GIS with demonstration of software	16/02/2019	83

ANSYS Workbench	28/01/2019	43
AutoCAD	21/01/2019	50
Cyber Security Ethical Hacking	01/07/2018	123
Coding skill practice using C	01/07/2018	123
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1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BTech	Field Projects	19
BTech	Internship	85
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1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained

Institute considers feedbacks from all stakeholders as an essential component to improve the performance and effectiveness of the institution. The college has instituted an on-line students' feedback to obtain feedback on teaching, coursework and various academic activities. Students' performance in all courses in the curriculum is extensively assessed to achieve the intended course outcomes. The course teachers frequently assess and document the learner achievement, modify instruction to improve learner attainment, participate in revision activities. Different types of feedback are as follows: A. Feedback on Curriculum The institution collects the feedback on syllabus and courses from different stakeholders such as the students, teachers, alumni, parents and employers. This involves data collection on the unfolding curricular materials in order to take decision on its efficacy or otherwise. The data is analyzed and discussed the departmental academic committee for possible incorporation in the curriculum. B. Feedback on Teaching-Learning Process The college has adopted the following surveys as an important assessment tools for evaluating the overall performance and excellence in education. ? Feedback on Infrastructural Facilities: A structure feedback has taken from the students and teachers to optimize and augment the infrastructural facilities in the campus. ? End Semester Students Survey: At the end of each semester, feedbacks are taken from students for individual courses with reference to teaching-learning processes and for achieving the course outcomes. These feedbacks are used by the teachers to improve the modes of delivery and contents of specific instructional objectives. ? Graduate Exit Survey: Feedbacks are collected from the graduating students at the end of the final semester. The achievement of program outcomes and program specific outcomes are also taken as criteria in the feedback. The graduate exit survey helps to assess students' perception of

how the course curriculum has advanced them toward achieving their goals. ? Alumni Survey: Alumni feedback is taken with reference to the achievement of program educational objectives. Alumni surveys are conducted during alumni meet as well as during any alumnus visit the college and further, college website invites alumni to provide feedback through online. ? Employer Survey: Students who have undergone vocational/summer training and internship in the industries, feedback is taken for the performance of students. Feedbacks are also taken from the concerned persons when they come to department for invited lecture or institution for campus recruitment in order to fulfill the professional requirements and industry expectations. ? Guardian Survey: The primary purpose is to obtain information about guardians' satisfaction with a range of academic, co-academic experiences, performances during and after graduation. This opinion is very valuable for significant improvements to the content and delivery of graduate education. ACTION TAKEN ON FEEDBACK The college follows a continuous review system as a measure of quality sustenance and quality enhancement. The feedbacks are collected by the concerned department, analyzed and discussed in the departmental academic committee meeting. The suggestions are placed to principal for subsequent discussion in the Internal Quality Assurance Cell (IQAC) to address any issue of concern.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
Mtech	Computer Science and Engineering	18	2	2
BTech	Mechanical Engineering	120	9714	83
BTech	Applied Electronics and Instrumentation Engineering	60	9635	53
BTech	Biomedical Engineering	30	7726	27
BTech	Civil Engineering	120	11154	63
BTech	Computer Science and Engineering	120	11367	111
BTech	Electrical Engineering	120	12373	116
BTech	Electronics and Communication Engineering	120	11728	114
BTech	Information Technology	90	12336	83
MBA	Masters of Business Administration	60	4576	11
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2.2 – Catering to Student Diversity

2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2018	3109	34	169	6	19

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
194	164	5	21	0	12

View File of ICT Tools and resources

View File of E-resources and techniques used

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

Institute has well established "Mentoring System" and practiced diligently at individual level to better serve the needs of an ever-changing and dynamic learning community. Effective mentoring begins with the faculty and depends on the healthy relationship between faculty and students. Each faculty will be the mentor of a group of 20 to 25 students. First year students will have primary and joint mentors from the department of Basic Engineering Sciences and second, third, fourth year students will have mentors from the parent department. Departmental faculties will continue to be mentors for the same group of students till their graduation. Types of Mentoring: ? Professional Guidance - regarding professional goals, selection of career, higher education. Arrange lectures of eminent personalities from academics, industry and social workers. ? Career Advancement - regarding employment opportunities, entrepreneurship development, innovative practices, morale, honesty and integrity as required for career growth. The Training and Placement Cell extends their service to the students in career guidance, organizes lectures concerning career planning. ? Course Work Specific - regarding attendance and performance in each semester. A thorough discussion takes place on the syllabus, exam module, the pattern and the ways of attempting the paper. The performance is analyzed after every test and then a brain storming session is organized to assess their strengths and weaknesses. ? Lab specific - regarding Do's and Don'ts in the lab. Responsibilities: The mentor will perform the following functions. The list of course cannot be exclusive. A mentor can always do more for the benefit of the students. 1. Meet the group of students at least twice a month. 2. Continuously monitor, counsel, guide and motivate the students in all academic matters. 3. Advise students regarding choice of electives, project, summer training etc. 4. Contact parents/guardians if situation demands e.g. academic irregularities, negative behavioral changes and interpersonal relations, detrimental activities etc. 5. Advise students in their career development/professional guidance. 6. Keep contact with the students even after their graduation. 7. Intimate HOD and suggest if any administrative action is called for. 8. Maintain a detail progressive record of the student in college standard format. 9. Maintain a brief but clear record of all discussions with students. HOD: The HOD will, 1. Meet all mentor of his/her department at least once a month to review proper implementation of the system 2. Advice mentors wherever necessary. 3. Initiate administrative action on a student when necessary. 4. Keep the head of the institute informed. Academic Committee: Institute's academic committee will discuss mentoring related issues at least twice in a semester during its meetings. The suggestions are placed for subsequent discussion in the Internal Quality Assurance Cell (IQAC) to revise/upgrade the system if necessary.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
3142	194	16.2

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
231	194	37	10	1

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2018	Sukumar Roy	Professor	Certificate of Appreciation by MAKAUT
2018	Partha Sarathi Pal	Associate Professor	NPTEL TOP SPOC
2019	Partha Sarathi Pal	Associate Professor	NPTEL TOP SPOC
2018	Shampa De	Assistant Professor	NPTEL COURSE TOPPER
2019	Sathya Prabakaran	Assistant Professor	Ph.D.
2018	Abhishek Gupta	Assistant Professor	NPTEL COURSE TOPPER
2019	Saheli Sarkhel	Assistant Professor	Ph.D.

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2.5 – Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
BTech	AEIE	1st Sem / 1st Year	24/12/2018	11/03/2019
BTech	BME	1st Sem / 1st Year	24/12/2018	11/03/2019
BTech	CE	1st Sem / 1st Year	24/12/2018	11/03/2019
BTech	CSE	1st Sem / 1st Year	24/12/2018	11/03/2019
BTech	EE	1st Sem / 1st Year	24/12/2018	11/03/2019
BTech	ECE	1st Sem / 1st Year	24/12/2018	11/03/2019
BTech	IT	1st Sem / 1st Year	24/12/2018	11/03/2019
BTech	ME	1st Sem / 1st Year	24/12/2018	11/03/2019
MBA	MBA	1st Sem / 1st Year	24/12/2018	11/03/2019
Mtech	CSE	1st Sem / 1st	24/12/2018	11/03/2019

			Year		

2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

Internal Quality Assurance Cell (IQAC) of the institute 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 of various departments. The recommendations from various committees and from the management are scrutinized 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. At the institution level following reforms in continuous internal evaluation has been initiated to ensure transparent and objective assessment. ? Students' feedback on structured questionnaires. ? Monitoring and mentoring activities. ? Syllabus coverage reports. ? Course file, lesson plan and quality assignments and internal tests. ? Mandatory parent-teacher meeting. ? Academic audit report. ? Reports on training, internship, field project and campus recruitment. ? Rubrics based evaluation system ? Course outcomes based question paper for internal tests and assignments. ? Performances of students with respect to each course outcomes. ? Attainment level of course outcomes program outcomes and program specific outcomes. ? Learning through observation, extramural laboratory practices, designed based projects and extensive tutorial activities. ? Teach while you learn practices. ? Methodologies for strengthening program outcomes and program specific outcomes attainment. ? Seminar/ Project work: Students progress is evaluated through presentation at fortnightly Besides this, institute strictly follows the "Academic Activities – A Ready Reckoner" guidelines for scheduled monitoring reviewing of all academic activities round the year.

2.5.3 – Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

The institute maintains its own academic calendar to ensure academic discipline and smooth conduction of the continuous internal evaluation process. For preparation of the detail academic schedule, the institute has to depend on the affiliated University calendar and the local needs. 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. The activity schedules of the academic calendar for the academic year 2018-2019 as follows: ? The University Registration process started on June 11, 2018. ? Admission activities completed by July 31, 2018. ? Commencement of Academic Programme: 01/08/2018 (new batch), 13/07/2018 (continuing bath) 14/01/2019. ? Registration activities completed by September 10, 2018. ? First Test Slot: 14/09/2018-20/09/2018 within March 15, 2019. ? Second Test Slot: 14th to 20, 2018 within May 10, 2019. ? Practical Examinations Viva-Voce: 21/11/2018-30/11/2018 13/05/20190-20/05/2019. ? Theory Examinations: 4/12/2018-21/12/2018 23/05/2019-12/06/2019. ? Inter Semester Break: 24/12/2018-12/11/2019 13/06/2019-12/07/2019. ? Publication of Result will be announced in the University website in February 2019, July 2019 (Final Semester) August 2019 (Other than Final Semester). ? Separate Supplementary Examination for final year student will be held on September.

2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

http://nsec.ac.in/impdoc/aqar2018-19/AQAR-2_6_2-ALL-PO-PSO-CO-NSEC.pdf

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
AEIE	BTech	Applied Electronics and Instrumentation Engineering	55	54	98.18
BME	BTech	Biomedical Engineering	20	20	100
CE	BTech	Civil Engineering	138	137	99.3
CSE	BTech	Computer Science and Engineering	136	135	99.26
EE	BTech	Electrical Engineering	139	139	100
ECE	BTech	Electronics and Communication Engineering	145	126	86.8
IT	BTech	Information Technology	87	87	100
ME	BTech	Mechanical Engineering	134	134	100
CSE	Mtech	Computer Science and Engineering	2	2	100
PSM	Mtech	Power Systems	7	3	42.85

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2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

http://nsec.ac.in/impdoc/aqar2018-19/AQAR-2_7_1-SSS.pdf

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Resource Mobilization for Research

3.1.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Any Other (Specify)	730	AICTE	14.75	11.75

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3.2 – Innovation Ecosystem

3.2.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
Application of AI in Startup	NSEC Ecell	20/07/2018
Web Developmen t using PHP, MySQL and Word Press	Department of Information Technology and Training and Placement Department	30/07/2018
Android Application Development	Department of Information Technology and Training and Placement Department	30/07/2018
Electronic Circuit Design – I(Basic)	Department of ECE and Training and Placement Department	25/06/2018
PHP and MySQL	Department CSE and Training and Placement Department	24/09/2018
Cyber Security and Ethical Hacking	Department of CSE and Training nd Placement Department	16/08/2018
Python Programmin g(In light of C)	Department of ECE and Training and Placement Department	11/08/2018
Electrical AutoCAD	Department of EE and Training and Placement Department	16/07/2018
Hardware Model Developmen t and Interfacing with PLC	Department of EE and Training nd Placement Department	23/07/2018
Coding Skill practice using C	Department of AEIE and Training and Placement Department	06/08/2018
Introduction and Application of Python	Department of AEIE and Training and Placement Department	13/08/2018
Hands on training on familiarization of electrical and electronic equipment with soldering technique	Department of BME and Training and Placement Department	13/06/2018
Embedded System Design	Department of BME and Training and Placement Department	07/12/2018
Knowledge on welding technology for heavy industries	Department of ME and Training and Placement Department	19/07/2018
Knowledge on welding technology for heavy industries	Department of ME and Training and Placement Department	19/07/2018
Solid Works	Department of ME and	13/08/2019

	Training and Placement Department	
Basics of Civil Engineering	Department of CE and Training Placement Department	16/07/2018
AuoCAD for Civil	Department of CE and Training and Placement Department	24/09/2018
Prototype Exhibition	NSEC Enterpreneurship Development Cell	06/02/2019
Idea 2 Prototype Competition	NSEC Enterpreneurship Development Cell	16/02/2019
Hult Prize on Campus 2019	NSEC Enterpreneurship Development Cell	16/02/2019
Python with Django	Department of CSE and Training and Placement Department	13/02/2019
Android App Development	Department of CSE and Training and Placement Department	04/02/2019
Python with Django	Department of IT and Training and Placement Department	28/01/2019
MEAN Stack Development	Department of IT and Training and Placement Department	24/02/2019
Python Programming	Department of ECE and Training and Placement Department	16/01/2019
Python and IOT (Arduino)	Department of ECE and Training and Placement Department	15/01/2019
Basic Industrial Automation(along with simple projects)	Department of EE and Training and Placement Department	15/01/2019
Python and IOT	Department of EE and Training and Placement Department	14/01/2019
Core Python Programming	Department of AEIE and Training and Placement Department	16/01/2019
Python Programmin g with projects	Department of AEIE and Training and Placement Department	21/01/2019
Familiarizati on of Digital Electronics and various sensor used in Biomedical equipment	Department of BME and Training and Placement Department	27/01/2019
Familiarizati on of medical equipments,	Department of BME and Training and Placement	16/02/2019

identification of faulty and practice demo of some important medical equipment	Department		
AutoCAD	Department of ME and Training and Placement Department	21/01/2019	
ANSYS Workbench	Department of ME and Training and Placement Department	28/01/2019	
Remote Sensing and GIS with demonstration of software	Department of CE and Training and Placement Department	16/02/2019	
Basic Coding with C	Training and Placement Department	12/03/2019	
International Professional Exchange Program,Bio medical Equipment Technology (BMET),Associate Degree	Department of Biomedical Engineering	16/09/2018	
Workshop on Hands on Circuit	NSEC Entrepreneur ship Development Cell	02/03/2019	
Ethical Hacking and Cyber Security Workshop	Department of Iinformation Technology	28/09/2018	
Cloud Study Jam	Department of Iinformation Technology	23/02/2019	
Application of Blockchain	Department of Iinformation Technology	31/10/2018	

3.2.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
Traffic flow minimization using artificial Intelligence	Soujanya Ray, Saunak Das, Ayush Thakur, Anubhab Singh	Tata Consultancy Services EnginX	31/08/2018	3rd Innovation/ Student
Generating Electricity from Human Pressure	Naseem Ahmad and Astha Gupta	Bengal National Chamber of Commerce (BNCCI)	26/12/2018	1st Innovation/ Student
White Coal from Jute Sticks	Katha Sur Karan Ghorai	E-SUMMIT(Scintillations-2019), IIEST,Shibpur	24/02/2019	3rd B-Plan/Student
Bio-Fuel from used cooking oil	BAISHAKHI CHAKRABORTY, PIYASI DAS, PALLAVI SINHA, PROCHETA BHATTACHARYYA	E-SUMMIT(Scintillations-2019), IIEST,Shibpur	24/02/2019	6th B-Plan/Student
Healthcare Solution in	SAILY CHAKRABARTI	E-SUMMIT(Scintillation	24/02/2019	10th B-Plan/Student

Rural India		s-2019), IIEST,Shibpur		
Generating Electricity from Human Weight	Naseem Ahmad and Astha Gupta	DST and Texas Instrument (IICDC 2018)	01/12/2018	Selected in quarter final round
Vigyanam Water from Thin Air	Sumit Kumar, ROHIT YADAV	Smart India Hackathon (SIH2018)	31/08/2018	2nd in Hardware
		View File		

3.2.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
NSEC Incubation Center	NSEC Incubation Center	Self Spnsored	TEAMCOGNITO TECH LLP	LLP	13/11/2018
NSEC Incubation Center	NSEC Incubation Center	Self Spnsored	Birpurush PVT LTD	PVT LTD	11/06/2019
		View File			

3.3 – Research Publications and Awards

3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
0	2	1

3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded
NA	0

3.3.3 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
National	Biomedical Engineering	1	0
International	Biomedical Engineering	5	1.1
International	Basic Engineering Sciences	1	0
International	Electrical Engineering	1	3.5
International	Computer Science and Engineering	5	1.6
International	Information Technology	2	0
International	Mechanical Engineering	10	1
International	Electronics and	2	2.4

Communication Engineering	

3.3.4 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Applied Electronics and Instrumentation Engineering	4
Mechanical Engineering	1
Information Technology	5
Electronics and Communication Engineering	7
Computer Science and Engineering	6
Electrical Engineering	2
Basic Engineering Sciences	1

3.3.5 – Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Comparative study of parameters of Heart Rate variability in smoker and non-smoker	Tarak Das , Srija Chakraborty, Prosenjit Sikdar and Piyali Basak	International Journal of Research in Advent Technology	2018	3	Netaji Subhash Engineering College	0
Free vibration behavior of a thermally post-buckled FG Timoshenko beam under large deflection using a tangent stiffness-based method.	Dr. Amlan Paul	Mechanics of Advanced Materials and Structures	2018	4	Netaji Subhash Engineering College	7
Non-linear forced vibration analysis	Dr. Amlan Paul	Journal of Strain Analysis for Engine	2018	4	Netaji Subhash Engineering College	0

of higher-order shear-deformable functionally graded material beam in thermal environment subjected to harmonic excitation and resting on non-linear elastic foundation.		ering Design				
A framework for managing uncertainty in information system project selection: an intelligent fuzzy approach	Dr. Anupam Halda	International Journal of Management Science and Engineering Management	2019	4	Netaji Subhash Engineering College	3
Temperature Dependent Natural Modes for Sigmoidal Functionally Graded Conical Shell	Dr. Apurba Das	Materials Today: Proceedings	2019	3	Jadavpur University	3
Low Velocity Normal Impact Analysis of Functionally Graded Conical Shell with Simple Power Law	Dr. Apurba Das	Materials Today: Proceedings	2019	3	Jadavpur University	1
Calibration of	Dr. Kushal Bhattachar	Journal of Failure	2018	1	Jadavpur University	1

Beremin Parameters for 20MnMoNi55 Steel and Prediction of Reference Temperature (T0) for Different Thicknesses and a/W Ratios	yya	Analysis and Prevention				
Variation of Beremin Model Parameters With Temperature by Monte Carlo Simulation	Dr. Kushal Bhattacharyya	Journal of Pressure Vessel Technology	2019	1	Jadavpur University	0
To Study the Effect of Loss of Constraint on Reference Temperature (T0) With the Help of Q-Stress, Triaxiality Ratio, and T-Stress.	Dr. Kushal Bhattacharyya	Materials Today: Proceedings	2018	1	Jadavpur University	1
[View File](#)						

3.3.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Metallic Ion Doped Tri-calcium Phosphate Ceramics: Effect of Dynamic Loading on in vivo Bone Regeneration	Sujan Krishna Samanta	Journal of the Mechanical Behavior of Biomedical Materials	2019	66	0	Jadavpur University

Study on the Structure and Properties of Crystalline Pure and Doped ?-Tri Calcium Phosphate Ceramics	Sujan Krishna Samanta	Materials today:Proceedings	2018	18	0	Jadavpur University
Physical and Mechanical Characterization of Crystalline Pure ?-Tri Calcium Phosphate Its Dopants as Bone Substitutes	Sujan Krishna Samanta	IOP Conf. Series: Materials Science and Engineering	2019	24	0	Jadavpur University
Synthesis and Characterization of Gelatin-PVA/Hydroxyapetite(Hap) Composite For Medical Applications	Sujan Krishna Samanta	IOP Conf. Series: Materials Science and Engineering	2018	24	0	Netaji Subhash Engineering College
Implementation of quadruple valued flip-flops using CMOS and spatial light modulator-based Savart plate	Animesh Bhattacharya, Amal K Ghosh, Goutam K Maity	International Journal of Nanoparticles	2018	12	3	Netaji Subhash Engineering College
UWB MIMO Slot Antenna with Minkowski Fractal	Paramita Debnath, Anirban Karmakar, Anuradha Saha and	Progress in Electromagnetics Research	2018	26	4	Netaji Subhash Engineering College

Shaped Isolators for Isolation Enhancement	Shabana Huda					
Cross-wavelet transform as a new prototype for classification of EEG signals	Priyadarshiny Dhar, Saibal Dutta, V. Mukherjee, Abhijit Dhar and Prithwiraj Das	Computer Methods in Biomechanics and Biomedical Engineering: Imaging Visualization, Taylor Francis Grou	2018	52	0	Netaji Subhash Engineering College
Design of a Fractal Inspired Antipodal Vivaldi Antenna with Enhanced Radiation Characteristics for Wideband Applications	Anirban Karmakar, Anindita Bhattacharjee, Anuradha Saha and Abhirup Bhawal	IET Microwaves, Antennas Propagation	2019	60	2	Netaji Subhash Engineering College

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3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Presented papers	5	0	0	0
Attended/Seminars/Workshops	2	5	0	0
Resource persons	3	0	0	0

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3.4 – Extension Activities

3.4.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Celebration of Friendship day with an orphanage "Ashiyana Happy	Rotaract club NSEC-NSS unit	6	30

Home".				
Drops of Hope-A blood donation camp	Rotaract club NSEC-NSS unitassociation of Thakurpukur Cancer Hospital	20		100
Blood Donnation Camp	NSEC-NSS unit in association NRS Medical College Hospital	4		35
Tree Plantation	NSEC-NSS unit	14		145
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3.4.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
INTERNATIONAL SPACE APPS CHALLENGE	AS AN PARTICIPANT	NASA	1
Hash Code 2019 Online Qualification Round	Team: Bits N Bytes, 2958th place	HASH CODE	1
Google	Achievement	Google	1
NPTEL IIT KHARAGPUR	Gold Medal	NPTEL IITKgp	1
Certificate of merit for mathematics talk-contest	Certificate of merit for mathematic	NDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENC	1
IIT Madras Spoken Tutorial	Course Topper	MHRD, NPTEL IIT Madras	1
IIT Madras Spoken Tutorial	Course Topper	MHRD, NPTEL IIT Madras	1
Google Summer of Code 2019	Speaker	Google	1
Google Code-In Mentor	Google Code-In Mentor	Google	1
NPTEL Soft skill	Course topper	NPTEL-Swayam	1
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3.4.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
Childrens Right	NSEC-NSS unit Art of Living	Children Eduction in slum area	8	55
Womens Empowerment	Rotaract club NSEC-NSS unit	Self Defence Workshop for Students	6	65

Charity	Rotaract club NSEC-NSS unit	No poor Sleeps Hungry	5	25
Education	Rotaract club NSEC-NSS unit	Shikkhar Alo- Book donnation to Primary School	24	125
Community Service	NSEC-NSS Unit	Swachh Bharat Abhiyan	35	170
		[View File](#)		

3.5 – Collaborations

3.5.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
CO-PRINCIPAL INVESTIGATOR IN THE PROJECT NAMED DEVELOPMENT OF SOME ANALYTICAL TOOLS FOR ANALYSIS OF LARGE SCALE PPI NETWORK in JADAVPUR UNIVERSITY	DR. PIYALI CHATTERJEE	DEPARTMENT OF BIOTECHNOLOGY	1095
Ph.D. GUIDE	DR. KOUSHIK DUTTA	MAKAUT	1725
Ph.D. GUIDE	DR. SUPRIYO DHABAL	MAKAUT	1725
Secretary (Technical), Indo-UK Confederation of Science Technology and Research, London, UK (Company No. 12297394) on 30th October 2018.	Dr. Rajdeep Chakraborty	Indo-UK Confederation of Science Technology and Research, London, UK (Company No. 12297394)	730
		[View File](#)	

3.5.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Intern	Student Developer in the Google Summer of Code 2019 program	GOOGLE	27/05/2019	19/08/2019	1
Intern	EXECUTIVE INTERN	Seekhlo Education Pvt. Ltd	02/01/2019	31/03/2019	1

Intern	Lead Python Developer Intern at our ISRO Branch in Bengaluru.	Next Private Limited	12/08/2018	20/10/2018	1
Educational Visit	Educational visit to Doppler Weather Radar, New Secretariat Building, Kolkata on 9 January 2019.	Doppler Weather Radar, New Secretariat Building, Indian Meteorological Department (IMD), Kolkata	09/01/2019	09/01/2019	15
Educational Visit	An Educational visit to BOSE Institute, Kolkata	Bose Institute Main Campus, Razabazar, Kolkata	15/02/2019	15/02/2019	13

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3.5.3 – MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
Indian School of Anti-hacking, Kolkata	20/06/2019	Academic Collaborative Program	12
BSE Institute Ltd.	20/06/2019	Student Faculty Exchange Program	27
Nagasaki Wesleyan University, Nagasaki, Japan	17/05/2019	Academic Collaboration and Students Exchange Program	11
Sarajevo School of Science and Technology, Bosnia and Herzogovina	23/08/2018	Academic Exchange Program	15
University of East Sarajevo, Bosnia and Herzogovina	30/08/2018	Exchange Program for Students and Faculty	8

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CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
100	92.02

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Classrooms with Wi-Fi OR LAN	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
Campus Area	Existing
Class rooms	Existing
Laboratories	Existing
Seminar Halls	Existing
Classrooms with LCD facilities	Newly Added
Seminar halls with ICT facilities	Existing
[View File](#)	

4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
LIBSYS	Fully	Web Centric Lsease EJB verson LMS	2006

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	98414	12216529	776	167786	99190	12384315
Reference Books	25	23420	40	390852	65	414272
e-Books	58	89741	0	0	58	89741
Journals	40	106641	34	107000	74	213641
e-Journals	175	776723	12	59780	187	836503
Digital Database	9	966464	2	28220	11	994684
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4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
Dr. Sukumar Roy	Bioelectricity:Resting Memebrane Potential and Action Potential	Institutional LMS	23/07/2018
Dr. Swapna Roy	Three phase inverter operating	youtube content	19/05/2019

	principle for 3rd yr EE student		
Dr. Swapna Roy	Lissajous pattern	youtube content	13/04/2019
Dr. Swapna Roy	Andersons bridge numerical solution, Electrical Measurement, Electrical Engineering	youtube content	05/04/2019
Dr. Swapna Roy	Kelvin Double bridge from NSEC	youtube content	04/04/2019
Dr. Swapna Roy	Anderson Bridge with Phasor diagram from Netaji Subhash Engineering College	youtube content	24/03/2019
Dr. Swapna Roy	Example 1 fourier series numerical	youtube content	07/12/2018
Dr. Swapna Roy	Complex and real coefficient relationship in Fourier series	youtube content	07/12/2018
Dr. Swapna Roy	Fourier series, even and odd function	youtube content	07/12/2018
Prof. (Dr.) Sukumar Roy	Cardiovascular System	Institutional LMS	18/01/2019

[View File](#)

4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/ GBPS)	Others
Existing	1016	885	778	35	0	19	117	50	50
Added	35	0	0	0	35	0	0	20	0
Total	1051	885	778	35	35	19	117	70	50

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

70 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Media Centre and Content Development Centre	http://nsec.ac.in/page.php?id=518

4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurredon maintenance of physical facilites
700	665.15	550	471.64

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

The policy for maintenance and utilization of the infrastructures depend on the type of equipment or facility. The campus infrastructures are grouped into five categories, they are stated below. • Category I: Academic tools, equipment and essential academic support systems All laboratory equipment, computers, library books, pedagogic tools like projectors, laptops, microphones, etc. located in the departments are to be taken care of 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. • Category II: Support systems which are not related to academics but essential For the gadgets like drinking water facility, wash rooms, lights, fans, air conditioners, furniture, etc. located in the departments, repair or replacement are taken centrally (Estate Maintenance under Administrator or Electric Section) on receipt of complaint from HOD. • Category III: General purpose campus infrastructure–essential or of aesthetic values All items like cars, Institute ambulance, Diesel Generator sets, Power Supply interface (sub-station), pump sets, gardening and horticulture, etc. are under the direct control of the Administrator. He reports directly to the Director/Principal, supervises the maintenance and up keep of these items, organizes their repair or replacement with due approval from the authority. Internal audit is organized annually and writing off is done as per laid down procedure. • Category IV: Sports and Extra-curricular activities Sports items are replaced on recommendation of the Faculty-in-charge (FIC) of Sports and games. The play-ground is maintained under the FIC supported by the Estate Maintenance. Student Common rooms are maintained by the Administrator. • Category V: Central Facilities – academic and general 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. Two categories of Central facilities are: (a) Academic facilities (b) Institute functional (General) facilities (a) Academic facilities: All computers and peripherals are maintained centrally. Location and utilization wise they are normally under the day to day supervision of the users / user department / section. Replacement needs approval from Principal / Director. Photo copiers are also maintained under the supervision of the central committee. (b) General facilities: Telephone, air conditioners, Elevator are maintained under the direct control of the Principal through Administrator. These items are usually covered under AMC with the institute.

http://nsec.ac.in/page.php?id=566

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	Free ship, Half Free Ship, TFW and SWC	55	365000

Financial Support from Other Sources			
a) National	Government Scholarship Schemes	350	11910500
b)International	NA	0	0
[View File]()			

5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved
Pre-placement Training	18/10/2018	540	Internal faculty resources
Personal Couselling	03/09/2018	154	Internal faculty resources
Soft Skill Development	21/08/2018	610	Internal faculty resources
Soft Skill Development and Aptitude Classes	23/07/2018	3142	Internal Faculty Resources Mr. Ankuran Das
Remedial coaching	08/10/2018	560	Internal faculty resources
Mentoring Mentoring Classes	13/07/2018	3142	Internal faculty resoufces
Indution Program Bridge Courses	23/07/2018	725	Internal faculty resources
Yoga Sessions	16/07/2018	600	Physical Education Department, Jadavpur University
Empolyability Enhancing Classes	06/09/2018	555	Internal faculty resources
Special Language Lab Session	15/01/2019	775	Internal faculty resources
[View File]()			

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passedin the comp. exam	Number of studentsp placed
2018	Students grooming for Career Enhancemet (BME)	7	6	3	3
2019	Students grooming for Career	35	33	2	31

Enhancement (IT)			

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5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
1	**1**	**1**

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed
INTEL CORPORATION(INTERNS), Informatica (Internship), TCS(Digital), TEK SYSTEMS GLOBAL SERVICES, TCS(ONTERNSHIP), TCS(CODEVITA), Zentron Labs (INTERNS), Persistent Systems Ltd., CERNER (INTERNS), Virtusa, Infinite Computer Solutions (India) Ltd(INTERNS	**2405**	**295**	**SODEXO BIOMEDICAL, SCAN RAY, TRANSASIA BIOMEDICAL LTD**	**7**	**4**

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5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2019	**1**	**B.Tech in Biomedical Engineering**	**Biomedical Engineering**	**RWTH Aachen University, Germany**	**MS in Biomedical Engineering**
2019	**1**	**B.Tech in Biomedical Engineering**	**Biomedical Engineering**	**Otto- Van Guericke University**	**M.S course: Medical Systems**

				Magdeburg	Engineering
2019	1	B.Tech in Biomedical Engineering	Biomedical Engineering	The Ohio State University, USA	Ph.D Program in Biomedical Engineering
2018	1	B.Teh in Applied Electronics and Applied Instrumentation	Applied Electronics and Applied Instrumentation	Jadavpur University	M.Tech Program

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5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
GATE	18
GRE	2
TOFEL	2
CAT	2

[View File](#)

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Carrom	Intra college Carrom Tournament at NSEC	225
Football	Intra college Football Tournament at NSEC	228
Kabaddi	Intra college Kabaddi Tournament at NSEC	330
Chess	Intra college Chess Tournament at NSEC	155
Table Tennis	Intra college TT Tournament at NSEC	165
Vollyball	Intra college Vollyball Tournament at NSEC	140
Badminton	Intra college Badminton Tournament at NSEC	130
Badminton	Inter college Badminton Tournament of THE TOURNAMENT RELOADED OF ANAKRONOS organised by TISL	12
Vollyball	Inter college Volleyball Tournament AMIPHORIA organised by AMITY University	24
Kabaddi	.Inter college Kabaddi Tournament AMIPHORIA organised by AMITY	24

5.3 – Student Participation and Activities

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

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2018	Inter-College Zone IV organized by MAKAUT	National	1	0	1710902083	Taniya Das
2019	Girls kho-kho and Girls Kabaddi	National	1	0	1710906004	Trina Maity
2019	ASTITWA-2k 19 -3rd prize	National	0	1	1810906022	Sayani Chatterjee

5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

The students of this college are an integral part of all college activities. Students provide the necessary input required by the management as they are directly connected and are involved in various important processes of the college. They are given the responsibilities to organize different activities, event organization and coordination among many other roles. With the objective of inculcating the qualities of leadership, organization, and responsibility in the students, 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 the 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. The student bodies and their activities are as follows: ? Technical Club-Phoenix: Annual Technical Fest - Avenir, Inter college quiz – Brainstormer, Intra college debate – Kurukshetra, Peer teaching forum, Technical talk, Seminar, Workshop, Aptitude test, Group discussion, Soft skills, Wall magazine, Annual magazine-synergy ? Eco Cultural Club: Freshers welcome, Teachers day, College foundation day, annual cultural program, national festivals and birth and death anniversaries of great Indian personalities. ? Sports Club : Intra and Inter college sports, Annual sports, ? E-cell: Startup and B-plan development, Higher education and Job counseling, Technical research and Project work, ? NSS students' wing: Yoga, blood donation camp, plantation, eco-rallies and health awareness camp, womens day. Students are nominated as members in different academic and administrative bodies/committees of the college. Students members are given more freedom in presenting various issues and their suggestion are given due importance in taking decisions at the respective committee meeting. Students constitute in

these bodies' plays a vital role in improving the quality of teaching learning processes. Students represent the following academic and administrative bodies of the college: ? Internal Quality Assurance Cell ? Library Committee ? Placement Training Committee ? Student Affairs Committee ? Cultural Affairs Committee ? Games Sports Committee ? Disciplinary Committee ? Internal Complaint Committee ? Anti-Ragging Committee ? Students' Grievance Redressal Committee ? Students' Welfare Committee Student participation ensures the systems efficiency and effectiveness in putting forward the interests and views of the students. Several student chapters in various bodies like IEEE, IEI are in place. The views and suggestions of class representatives are discussed in departmental academic committee meeting and finally placed in the college academic committee meeting. The active mentoring system continuously monitors, counsel, guide and motivate the students in all academic matters. Students' suggestions for academic improvement are placed to the concerned heads of the departments through faculty mentors. The academic committee of the institute discusses mentoring related issues at least twice a semester during its meetings. Members of different students committee are the representation of college student council.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

The alumni association started its journey in the year 2008 with the name Netaji Subhash Engineering College Alumni Association (NSECAA). This NSECAA is organized exclusively for charitable, literacy and educational purposes. The institution is extremely proud of every member of its alumni. Most of them are successful in their careers in profession, higher education and in the field of entrepreneurship. College successfully draws on their support 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. Through these alumni meets, a strong bond is created between the pass out students and the current batches. Alumni share their accomplishments and their success mantra. All departments also arrange reunion/alumni meets and functions under NSECAA. It is a custom for all the ex-students of each department in this college to register themselves with the Alumni Association. The alumni spread around the globe, support the college in various activities. Alumni Contribution: ? Establishing and fostering community relationship amongst NSEC alumni residing anywhere in the world, irrespective of nationality, race, gender, and discipline of education. ? Providing suggestions to modernize the existing facilities and upgrade the quality of education as per industry requirements. ? Helping in identifying and inviting industrial experts to college for organizing technical seminars, workshops and guest lectures. ? Facilitating the industrial training, field visit, placement and internship for the present students. ? Sharing their opinion, exchange of experience, dissemination of knowledge and advancement of scientific knowledge in general. ? Assisting financial support to department and college for co-curricular and extra-curricular activities. ? Conducting lecture sessions, career counseling, pre-placement training by highlighting the job opportunities available in various sections. The alumni also share their journey and personal experience in the fields of their expertise. They discuss the educational path chosen by them the obstacles they overcame, the choices they made that benefitted them and much more. From their recent findings to their collaborations, they can freely discuss their work with the other students of the college. This helps the current batches learn from their alumni and allow them to contact for any help needed. It inspires the students to see their theoretical work being used practically by someone they can relate to. They find in the alumni their

mentors whom they can approach for any educational and/or personal query. The alumni can voice their opinions and communicate their views to contribute towards the betterment of the college. In any academic reform alumni feedback is a valuable input. Several lectures are organized where the alumni are invited to share their experience. This gives the students a window of opportunity to learn from people in the working field. Many field visits are also organized to those industries, hosted by the alumni.

5.4.2 – No. of enrolled Alumni:

1127

5.4.3 – Alumni contribution during the year (in Rupees) :

26500

5.4.4 – Meetings/activities organized by Alumni Association :

28/09/2018 CSE Alumni Association Meet (30) 26/02/2019 Industrial experience in hydro power plant EE (45) 03/03/2019 BME Society Alumni Meet-NSEC SRITI (42) 04/3/2019 Industry overviews basic knowledge to face the interview by Alumni CSE (51) 04/03/2019 Industry overviews and basic knowledge to face the interview IT (75) 04/03/2019 Application of electrical engineering in marine sector EE (59) 12/03/2019 Carrier guidance in IT industry and also Higher Study BME (43) 16/03/2019 Blockchain a revolution or a disruption? and Hands on session on machine learning, blockchain and IOT using AJILE technology ECE (59) 19/03/2019 MEMS : Afuture roadmap for mmw and sub-mmw Technologies ECE (16) 12/04/2019 Telecom business overview and technologies associated with it and also share few major issues which he faced and how did he overcome. CSE (28) 10/4/2019 Basic networking principles through a common programming language IT (31) 24/04/2019 a. Advance instruments which is recently we are using. b.All about Core Industry. c. Basic of Cement technology. d. Advanced DCS vs Basic of logic. e.question answering round for better beneficial. AEIE (44)

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

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. It is brought to the notice of the hierarchy only 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. Institution's academic administrators enjoy financial and academic autonomy. 1. Institute Committees – Majority of the members are faculty members. The committee decisions are final and in case of dispute, the BOG is the final authority. These are: Internal Quality Assurance Cell (IQAC) Academic Committee (AC) Library Committee (LC) Research and Development Committee (RDC) Student Affairs Committee (SAC) Examination Committee (EC) Training and Placement Committee (TPC) Cultural Affairs Committee (CAC) Internal Complaints Committee (ICC) [Grievance Redressal Sexual harassment] Anti-Ragging Committee (ARC) Fire and Safety Committee (FSC) 2. BOG Committees – One professor and one assistant professor are nominated to the committees. These are high power committees as they take

decisions on issues that involve substantial funds. These are: Institutional Planning Development and Evaluation Committee (IPDEC) Building and Works Committee (BWC) Central Purchase Committee (CPC) Disciplinary Committee (DC) Admission Committee (AC) Finance Committee (FC) Internal Quality Assurance Cell (IQAC) 3. Board of Governors (BOG) – The apex body to take final decisions on academic, administrative and financial issues related to the institute. At present 4 out of 18 members (Director, Principal, two faculty representatives) of BOG is faculty. ? Case Study As per the decentralization policy, all academic matters are considered to be under the purview of the faculty members through IQAC/AC. A couple of years back when India became one of the signatories of Washington Accord, the institute, thanks to its advisory committee Emeritus Forum, was made aware of the importance of this event, namely, mandatory adaptation of Outcome Based education (OBE) and accreditation by statutory bodies like NBA (and NAAC). The faculty perceived the importance of OBE and its adaptation. Subsequent preparations for NBA were formulated under Academic Committee. The decision of the academic committee was placed before the BOG. Initially, members of BOG desired preparation for NBA to be made under the guidance of an external professional agency. However, the institute could prevail upon the wisdom of the BOG, convince its members, and the institute was permitted to plan for NBA accreditation in its own way. Four departments CSE, ECE, EE and BME applied for NBA accreditation with successful results (2016). BOG has subsequently given approval for NAAC accreditation and the college is accredited with B Grade on March 28, 2019 valid up to March 27, 2024.

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Admission of Students	The admission of students are based on merit in accordance with the rank obtained in the West Bengal Joint Entrance Examination (WBJEE) and rank obtained in all India level entrance examinations of JEE (Main). The institute maintains transparency in admission and all the admission are as per the list communicated to the institution. The institute makes awareness and encourages technical education through: • Interact with neighboring school students to expose them to our activities and programmes • Arrange inter school events : Technical and cultural • Pre counseling • Financial supports to economically weaker bright students • Make admission smart through "one window programme"
Industry Interaction / Collaboration	The institute has interaction and collaboration with reputed industries and organizations. The institute has MOU with Confederation of Indian Industry to establish NSEC-Innovation Club for academia outreach and exchange

	programs. One International Exchange Program with UMass, USWDP for Afghanistan and several visits by senior professors from USA, Australia, Italy and Japan are arranged. The industry institute interactions are enhanced through: • Encourage faculty to get exposed to industries through visit, training and consultancy • Invite industrial experts for course / curriculum development, special lectures, joint guidance of projects • Students' summer training, industry visit, industry orientation through internship and Industry edge programmes.
Human Resource Management	The administrative department headed by Registrar and senior administrative officer deal with human resource management. Recruitment of faculty and staff are done by direct recruitment process. The effective welfare measures for teaching and non-teaching staff are as follows: • Staff development and motivational programmes • Monitoring and continuous appraisal • Service books for employees • Performance appraisal system • Career advancement scheme • Contributory employees provident fund • Gratuity and leave encashment • Welfare cooperative society • Medical unit and ambulance facilities • Children's education concession policy • Policy for support to career development of employees • Study leave for degree enhancement scheme
Library, ICT and Physical Infrastructure / Instrumentation	Library: • Library is fully automated using ILMS software: LSEase (rel.5.0) College version • Digital library is housed inside reading room. • Central library has been using LIBSYS with unlimited user login. • Rich collection books, print journals, IEEE/e books / e journals, CD / DVDs, lecture videos from NPTEL. • Separate reading room equipped with computers and internet facility. ICT: • Wi-Fi enabled campus • LAN connectivity • LCD projectors in classrooms, laboratories and seminar halls • Multimedia facilities with audio-visual equipment and webinar center for video conferencing Physical Infrastructure • Sprawling campus with gymnasium, yoga centre, bank and ATM • Additional state-of-the-art language lab, computer centre and AutoCAD

		laboratory
	Research and Development	Research: Research is considered to be an important component for career development. • Institute has well defined RD policies and is reviewed time to time. • Faculty is encouraged to enroll for award of PhD degree and continue research award of the degree. • Partial financial support is given for attending conferences and seminars. • Guidance of research scholars is encouraged. • Support for patent filling and recognition for paper publishing. RD: • Faculty is encouraged to take up innovative students' project – B.Tech and M.Tech level. • EDC activities are augmented promoting student / faculty skills. • Industrial collaboration • Projects are submitted to different agencies for funding.
	Curriculum Development	The institute is affiliated to MAKAUT, who drafts the curriculum for the affiliated institutes. However, NSEC is vigilant to put forward inputs during drafting of the curriculum based on experience of its faculty and considering its own vision. Different stages of interaction with the MAKAUT in this respect are: • Active participation in pre-drafting seminars organized by MAKAUT. • Forwarding suggestions to the BOS. Final curriculum is further reviewed during class room teaching gaps are identified and bridged through industrial visits, lectures by experts, extramural laboratories, problem based assignments, etc. Course outcomes (4-6) for each course are prepared and mapped accordingly.
	Teaching and Learning	Teaching: • Conventional blackboard blended with CT enabled teaching. • Need based development programmes are organized to improve quality of teaching for the point of view of domain knowledge and pedagogic skill. • Students' feedbacks for appreciation of food teaching and counseling for poor performance. Learning: • Preparation of course specific instructional objectives (SIOs) using Bloom's Taxonomy. • Familiarize the students with SIOs and COs • Rubrics based assessment • Project based active learning • Arrange quizzes and learn while you teach programmes on specific topics. • Arrange industrial visits,

	internships, expert lectures. • Encourage team work, leadership, entrepreneurship skills. • Support for innovative competition.
Examination and Evaluation	Examination: • Course coordinator prepares question banks • Course outcome based internal tests • End semester examination by the university where faculty participates by submitting model questions following the university suggested format. • 30 weightage for continuous evaluation and 70 on end semester examination. Evaluation: Participation of the institute in evaluation process is restricted to internal evaluation content only. To make the process effective, the following steps are adopted: • Quizzes, verbal interaction, assignments and tutorial problems are regularly organized. • Students access to answer scripts of each course. • Rubrics based evaluation of laboratory performance / examination • Seminars, periodic review and evaluation of projects, viva-voce.

6.2.2 – Implementation of e-governance in areas of operations:

E-governace area	Details
Planning and Development	Institute prepares and upload academic calendar on the institute website before commencement of academic session. Formulate and strictly adhere the Academic Activities: A Ready Reckoner for odd and even semester. Develop schedule and implement induction program and bridge courses for 1st year students. Strengthen self-learning / learning beyond syllabus: e-books, IEEE on-line journals, NPTEL (MOOC) courses, IITB Spoken tutorial courses, CDs of video lectures. Attainment is calculated for all courses and set target levels are set accordingly for next session. Different cross cutting societal issues are addressed by the institution through courses in curriculum, various bodies, programs and policies.
Administration	Academic administrative information is communicated digitally. Regular students' attendance is recorded and analyze through "SARTHAK" software. Essential information is communicated timely to students and parents digitally. Faculty and staff attendance are recorded through biometric system.

	All important areas and lobbies are under CCTV surveillance.
Finance and Accounts	Account department use Tally System for maintaining the accounts. Fees are collected through bank transfer and salaries are credited directly to the accounts with SMS intimation. Students' scholarships and freeships are maintained digitally. Purchase requisition and procurement are well maintained through ERP V.2.0. At the end of financial year, account details are audited by external auditor.
Student Admission and Support	Admission information and notices are put up on the college website and student admission is carried out through Management Information System TECHTRON ERP College Management V.2.0. Student related all information is stored along with auto-generated student unique identification number. Financial supports are provided to economically poor students through institutional freeship scheme, transparent mechanism for timely redressal of student grievances, students' assessment at the entry level, post orientation/induction programme, special programs for assisting slow learners and advanced learners. Capability enhancement and development schemes for competitive examinations, career counseling, soft skill development, yoga, meditation and personal counseling.
Examination	Examination related information and notices are uploaded on the college website. Generally, two internal assessment tests are conducted by the college and end semester examination by the affiliated university. Internal test answer scripts are accessible to all students. Marks for continuous internal assessment are uploaded on the university portal and students can check the marks through students' login ID portal. University examination forms are filled on-line and end semester examination is held as per the university schedule. The university results are available in the Member's Area on university website and the same is circulated to all departments for record.

6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee

of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	Priyadrshiny Dhar	FDP on Behavioral Remodelling for Enhancing the Classroom delivery of Teachers, organized by Netaji Subhash Engineering College in association with EICT Academy, IIT Guwahati,	Netaji Subhash Engineering College	1000
2019	Animesh Bhattacha rya	FDP on Behavioral Remodelling for Enhancing the Classroom delivery of Teachers, organized by Netaji Subhash Engineering College in association with EICT Academy, IIT Guwahati,	Netaji Subhash Engineering College	1000
2019	Animesh Mahata	FDP on Behavioral Remodelling for Enhancing the Classroom delivery of Teachers, organized by Netaji Subhash Engineering College in association with EICT Academy, IIT Guwahati,	Netaji Subhash Engineering College	1000
2018	Samir Kr Ghosh	FDP on Behavioral remodelling for Enhancing the Classroom Delivery of	Netaji Subhash Engineering College	1000

		Teachers, organised by EICT Academy, IIT Guwahati, held at B. P. Poddar Institute of Management Technology, Kolkata		
2018	Anupam Maiti	FDP on Behavioral remodelling for Enhancing the Classroom Delivery of Teachers, organised by EICT Academy, IIT Guwahati, held at B. P. Poddar Institute of Management Technology, Kolkata	Netaji Subhash Engineering College	1000
2018	Sujan Krishna Samanta	FDP on Behavioral remodelling for Enhancing the Classroom Delivery of Teachers, organised by EICT Academy, IIT Guwahati, held at B. P. Poddar Institute of Management Technology, Kolkata	Netaji Subhash Engineering College	1000
2018	Deepashree Dhar	FDP on Behavioral remodelling for Enhancing the Classroom Delivery of Teachers, organised by EICT Academy, IIT Guwahati, held at B. P. Poddar Institute of Management Technology,	Netaji Subhash Engineering College	1000

2018	Hriya Banerjee	FDP on Behavioral remodelling for Enhancing the Classroom Delivery of Teachers, organised by EICT Academy, IIT Guwahati, held at B. P. Poddar Institute of Management Technology, Kolkata	Netaji Subhash Engineering College	1000
2018	Argha Basu	FDP on Behavioral remodelling for Enhancing the Classroom Delivery of Teachers, organised by EICT Academy, IIT Guwahati, held at B. P. Poddar Institute of Management Technology, Kolkata	Netaji Subhash Engineering College	1000
2018	Debamitra Chaudhuri	FDP on Behavioral remodelling for Enhancing the Classroom Delivery of Teachers, organised by EICT Academy, IIT Guwahati, held at B. P. Poddar Institute of Management Technology, Kolkata	Netaji Subhash Engineering College	1000

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6.3.2 – Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

Year	Title of the professional development	Title of the administrative training	From date	To Date	Number of participants (Teaching	Number of participants (non-teaching

	programme organised for teaching staff	programme organised for non-teaching staff			staff)	staff)
2019	FDP on Behavioral Remodeling and Use of ICT Tools for Classroom Delivery of Teachers		09/01/2019	15/01/2019	38	0

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6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
NPTEL ONLINE CERTIFICATION COURSE (FACULTY DEVELOPMENT PROGRAMME) ON Introduction to Abstract and Linear Algebra	1	06/08/2018	28/09/2018	52
Short term Course on Experimentation and data analysis for tensile test: Fatigue , Fracture and Tribological properties of metal organized by Jadavpur University	1	11/06/2018	15/06/2018	5
ISEA Project Phase II Sponsored Faculty Development Program on Cyber Security	3	28/01/2019	01/02/2019	5
STTP on Total Station Survey and Introduction to GPS at NITTTR, Kolkata	2	04/02/2019	15/02/2019	12

Behavioral remodelling for Enhancing the Classroom Delivery of Teachers, organised by EICT Academy, IIT Guwahati, held at B. P. Poddar Institute of Management Technology, Kolkata	6	10/07/2018	15/07/2018	6
National Workshop on Antenna Design for Brain Machine Interface	1	01/04/2019	05/04/2019	5
NPTEL ONLINE CERTIFICATION COURSE (FACULTY DEVELOPMENT PROGRAMME) ON Outcome Based Pedagogic principles for Effective Teaching	4	13/08/2018	07/09/2018	25
FACULTY DEVELOPMENT PROGRAM ON ENGINEERING MECHANICS organized by TECHNO HEAD OFFICE DN. 25, SALT LAKE	6	19/12/2018	23/12/2018	5
Behavioral Remodeling Information Communication Technology (ITC)	5	09/01/2019	15/12/2019	7
Faculty Development Programme on Behavioral Remodelling and use of ICT Tools for Classroom Delivery of Teachers,	11	09/01/2019	15/01/2019	7

organized by Netaji Subhash Engineering College in association with EICT Academy, IIT Guwahati

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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
5	5	4	4

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Employees Provident Fund (EPF) Medical and Maternity Leave Gratuity Welfare Cooperative Society Financial support for conference, seminars, workshops, paper publications and patent filing Free treatment on working days at the Medical Unit of the institute Free ambulance facility for employee and family from home. Concession to teaching loads and special leaves for support to career development of employees Fee concession to ward of employee in TIG manage Techno Model School Transport facility	Employees Provident Fund (EPF) or ESI as per ESI Act Medical and Maternity Leave Gratuity Welfare Cooperative Society Free treatment on working days at the Medical Unit of the institute Free ambulance facility for employee and family from home. Fee concession to ward of employee in TIG manage Techno Model School Transport facility	West Bengal Freeship Scheme, Tution fees waiver Scheme,Swami vivekananda Scholarship Scheme, Kanyashree, West Bengal Minorities Scholarship scheme,Bihar Government Student credit card scheme, E- Kalyan-Jharkhand, SC-ST-OBC, Post Matric Schorarship for OBC students of Tripura, Central Sector Scheme of scholarship for college and University students , Financial assistance for Education to the wardsof BEEDI/CINE/IOMC/LSDM Post matric, BC-EBC Post matric Scholarship Bihar, Prime ministers Scholarship scheme for central arm police Force and assam Rifles , SC , ST, OBC Post matric Scholarship of Bihar, Umbreklla scheme for Education of SC ST children - Post matric Scholarship (PNS-TRIPUA), SC-ST-Minority and Backward classes welfare scheme-Jharkhand, Free treatment on working days at the Medical Unit of the institute Free ambulance facility Financial support for

6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

The institute has a transparent mechanism for internal and external audit as per the government rules. Institute conducts internal and external audit annually. 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. 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. Last audit was done on 30th October 2019 for the financial year 2018-2019.

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

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
USAID funded USWDP	16650000	Two-week International Professional Exchange Program on Biomedical Equipment Technology-An Associate Degree Program
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6.4.3 – Total corpus fund generated

948000

6.5 – Internal Quality Assurance System

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	University Expert	Yes	NSEC
Administrative	Yes	University Expert	Yes	NSEC

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

? Parent teacher meeting by the respective department ? Guardian / parents feedback on a standard format ? On-line students attendance and relevant information to parents ? Parents / guardian meet on orientation program for 1st year ? Mentoring scheme for follow up of wards and parents

6.5.3 – Development programmes for support staff (at least three)

? Computer operation and basic preventive maintenance ? Awareness programs on digital hacking through mobile ? Medical check-up and hygiene awareness programme

6.5.4 – Post Accreditation initiative(s) (mention at least three)

? Arranged International Professional Exchange Program ? Arranged FDP in collaboration with IIT Guwahati ? Review of Institutional Policies ? Re-accreditation of four B.Tech Programmes ? Establish CII-NSEC Innovation Club

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	Yes
c)ISO certification	No
d)NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2018	International Professional Exchange Program supported by University of Masschessetts at Amherst, as part of the USAID funded USWDP for Afganisthan-Kabul University of Medical Science and Kabul Polytechnic University.	16/09/2018	16/09/2018	29/09/2018	30
2018	Development and implementation of software on-line students feedback collection, analysis and evaluation for preparedness, class performance, responsivene	13/07/2018	13/07/2018	15/10/2018	8

	ss, effectiveness and overall grade for teachers				
2018	Development and implementation of On-line Aptitude and Domain Knowledge Technical Test (Mock) for enhancing the employability skills of students.	24/07/2018	24/07/2018	22/08/2018	75
2018	Formation of NSEC-CII Innovation Club under Enterpreneurship Development Cell and conducting series of workshops, Hult prize, prototype exhibition and competition	06/08/2018	06/08/2018	27/08/2018	15
2019	Back To Class Program : Alumi interaction and lectures	26/02/2019	26/02/2019	09/03/2019	528
2019	Reveision and ammendment of various policies and rules of the institute	27/04/2019	27/04/2019	26/05/2019	12
2019	NBA Re-accreditation of Four B.Tech Programmes	27/05/2019	27/05/2019	27/05/2019	65
2019	Faculty Development Program on "Behavioral	09/01/2019	09/01/2019	15/01/2019	40

Remodeling and Use of ICT Tools for Classroom Delivery of Teachers" was organized in association with Electronics ICT Academy, IIT, Guwahati					

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CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Self Defence Workshop for Students	21/08/2018	21/08/2018	65	0
International Women's Day	08/03/2019	08/03/2019	35	75

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
? Electric fittings are kept in proper conditions to prevent leakage of electricity. ? Refrigerators and air conditioners are purchased with star rating. ? College has adopted E governance practices including paperless office, Cloud Storage, E circulars, E bulletins, ? ERP software in use is MIS for all academic, students section and examination work. ? Use of Tobacco and Cigarettes are strictly prohibited in the college ? Solar energy is used as renewable energy source which has reduced the consumption of conventional electricity (presently 0.5 KWH but planned to increased by 20) ? Water Harvesting Roof water harvesting is done and collected water is used for gardening purpose. ? Hazardous Chemicals are kept separately, away from the reach of students Chemicals and safety norms in the laboratory are strictly followed Students are made aware of the hazardous chemicals and safety aspects when they are given instructions before utilizing the chemicals. ? The labs are well ventilated and spacious and equipped with exhausts. ? UPS Batteries are recharged/repaired/exchanged in time. ? Electronic and computer accessories which are declared "Obsolete" are collected at one place and disposed off properly.

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	0

Provision for lift	Yes	0
Ramp/Rails	Yes	0
Braille Software/facilities	No	0
Rest Rooms	Yes	0
Scribes for examination	No	0
Special skill development for differently abled students	No	0

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2018	1	1	15/08/2018	1	Tree Plantation	1	300
2018	1	30	03/12/2018	30	Construction and Repair of Local Road	1	30
2019	1	1	11/02/2019	1	Health Awareness camp	1	35
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7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
Code of Conduct for Students (Amended)	03/07/2018	The code of student conduct is established to foster and protect the missions of the college, to foster the scholarly and civic development of the students in a safe and secure learning environment, and to protect the people, properties and processes that support the college and its missions. Student community should cultivate higher values of honesty, integrity, responsibility, mutual respect for persons and property, respect for human rights. Students

		are prohibited from indulging in anti-institutional, anti-national, antisocial, communal, immoral or political expressions and activities within the Campus and hostels.
Code of Conduct for the Students for Freshers	23/07/2018	Each student has been provided with the code of conduct at the time of admission. It includes model responsibilities of the students, behaviour of the students, dress code, punishments and etc

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Independence Day Celebration	15/08/2018	15/08/2018	100
Self Defence Workshop	21/08/2018	21/08/2018	65
Celebration of Birth Anniversary of Netaji Subhash Chandra Bose	23/01/2019	23/01/2019	150
Womens Day	08/03/2019	08/03/2019	110
[View File](#)			

7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

Plastic free campus: The College is keenly vigilant to make the campus a "plastic free zone". Plastic bags and packaging materials in any form are strictly prohibited. NSS unit jointly with "Art of Living" organization drives massive campaign among students. Security guards strictly check and ensure that no one carrying any plastic bags in the campus.

Tree Plantation: Plantation programmes are organized through NSS-Rotaract club volunteers for increasing the green coverage in the college campus and surrounding the playground. The college has appointed staffs (Mali) for maintaining the green plants and garden in the campus.

Paperless Office: Notices, circulars and reports are served through electronic communication medium, viz. e-mail, WhatsApp, facebook page, etc as practicable as possible. Initiatives have been taken to carry out the official works with minimum possible usage of paper.

Rain Water Harvesting: Rain water harvesting is practiced religiously in the college campus. The open reservoir is used for gardening through manual and automatic mechanisms. The underground reservoir is used solely for fire protection purposes.

E-Waste Management: Electronic waste generated from hardware and condemned materials which cannot be reused or recycled are stored in a separate safe zone and disposed centrally through authorized vendors.

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

1. Title of the Practice: Back to Class ? Objectives of the Practice Netaji Subhash Engineering College has got a very specific set of objectives to take up the abovementioned Initiative. • Networking Platform and Placements: Alumni network by itself is one of the best professional networking platforms available today. The alumni network of a college is one of the biggest sources of placement opportunities to the students. Alumni can help students get placed at their respective organizations. • Mentorship and Scholarships: Alumni can play an active role in voluntary programmes like mentoring students in their areas of expertise. • Career Guidance: Alumni is a huge talent pool whose guidance can be beneficial to many students and other fellow-alumni in their respective areas of study. ? The Context and the Practice While reconfiguring the alumni association two fundamental problems that the institution encountered were: The frequency and the nature of the interaction between two parties: In most of the cases the interactions remain irregular, out of context and irrelevant. The Alumni communications and outreach sometimes feel impersonal and do not provoke action: For some of the alumni, responding to the institutions call turned out to be a little difficult and their responses were essentially indifferent. The above mentioned hindrances and a desire to connect the past to the present the institution has taken up this initiative by allowing space to its alumni members to come and interact with the present students. The BACK TO CLASS initiative basically allows the alumni members of the institution to interact with the current students within a formal environment but an informal space. The topics of discussion range from 'Industry overviews and basic knowledge to face the interview' to 'Application of electrical engineering in marine sector'. What makes this initiative unique is that the students feel very comfortable asking the alumni questions that they would hardly ask in class. After the session the concerned faculty members talk to the speaker and map the areas that are to be addressed. Besides being insightful, this initiative turns out to be motivating and inspiring for the students. Considering the changing nature of the educational institutions we should refocus the purpose and the function of the alumni community. With the advent of Social Media, alumni relationship has taken a different flavour altogether. Presently, institution has numerous alumni groups on various social networking platforms with many active members. 2. Title of the Practice: Feedback on Feedback ? Objectives of the Practice: Absence of information regarding actions taken by the service provider on the feedback on quality of services is a normal drawback of most of our feedback systems. Its indirect adverse effect falls on trustworthiness of the feedback system. While actions on individual or collective grievances are communicated directly, actions taken on all feedbacks on courses/programmes cannot be always communicated directly to the learners especially where implementation of the actions takes long time. In order to improve trustworthiness of the feedback system, a practice is followed to keep the learners informed about the actions taken with likely results and the expected time line. ? The Context and the Practice In academic institutions all activities relate to academic practices and their improvements irrespective of their categorization-academic, administrative, or career development. Our institute has the mechanism to collect feedbacks from its stake holders i.e. students, alumni, industry, guardians, faculty, peer group and management. Different committees exist to collect the feedbacks from them and take appropriate actions. Two most important stakeholders- students and guardians are dynamic in nature with respect to the institute or programme. Immediate steps are taken on those which are dependent on provision of physical resources or controllable pedagogic methods. Others like syllabus modifications or attainment of certain programme outcomes may require time. Hence actions on a substantial part of their ongoing feedbacks may not be implemented immediately or even communicated to students/guardians during their stay in the

campus. The challenge lies in finding means to establish faith and trust of all stakeholders on our academic and feedback systems. The practice laid down by IQAC (Internal Quality Assurance Cell) aims at building confidence amongst the stakeholders in the quality of our academic system and the sincerity of the institute in rendering best services. Collection of feedbacks from different stakeholders, their analysis and recommendations of actions on them, is an established practice. The present practice is a further extension of feedback systems. Its main objective is to establish credibility of the feedback system, an important part of the academic practice.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

http://nsec.ac.in/impdoc/aqar2018-19/7-best-practice-aqar-18-19.pdf

7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

"Pursuit of excellence in Education" has been identified as the first and foremost distinctive feature in the vision of the institute followed by two other associated features, namely, Research and Entrepreneurship. The institution has extensively practiced outcome based education to increase knowledge and skills of the learners. Student centric experimental learning, participative learning and problem solving methodologies are adopted for enhancing learning experiences. The teaching through smart techniques especially ICT-enabled teaching and learning synergies the learning and make a big difference. Popularity of the programmes, as evident from student admission scenario, high placement and feedbacks received from stakeholders, prove the excellent quality education system in the institute. Building Rich Resources for Teaching and Learning The institute in its wisdom is continuously providing resources necessary to impart quality education. ? Infrastructure: Modern class rooms, well equipped spacious laboratories, seminar rooms, recreation rooms, etc. are designed for high standard education both quantitatively and qualitatively. Libraries (central and departmental) have adequate books, specially designed reading room, journals and modern facilities like e-journals, digital library which can be accessed from the wi-fi enabled campus. Extramural laboratories, extramural instructions and activities continuously supplement the programmes to bridge the gap. Two state-of-the-art language laboratories for enhancing soft skills and one dedicated computer center for imparting value added training programs. ? Faculty: Adequate young as well as senior, dedicated and experienced faculty of which 60 are PhD degree holders. 'Emeritus Forum', a conglomerate of retired faculty from reputed institutions guides and mentors the less experienced faculty. Faculty have been trained and motivated to design programme to obtain desired outcomes through curriculum, instructional delivery and evaluation internationally acceptable. Modern web based teaching learning methods are made available to faculty for up gradation of the quality of pedagogy as well as learning process. Research and Entrepreneurship Established vibrant research culture, majority of faculty members is pursuing PhD and guiding research work. EDC runs programmes to grow awareness of research and development, organizes competitions, and encourages student participation in different competitions. CII-NSEC innovation club involved students in innovative projects and prototype development activities. CDC and TPO arranged career enhancing on-line programmes, regular industry visit, industry orientation through internship, Industry edge programmes and value added certification on emerging technologies. Performance of the Institution One of the leading self-financed technological Institute in Eastern India, is accredited by NAAC, NBA-four premier programmes, TCS, Wipro, and Capgemini. Above 120 top-notch companies recruited large number of students.

Institute has strong alumni network comprising of 10,000 alumni members with bright careers around the globe. More than 25 students obtained Ph.D. from reputed foreign universities. NSEC-NPTEL Local Chapter continued position in Top 100 Colleges in India. IIC-NSEC achieved Two Full Golden Stars in first two-quarters as per guidelines of MHRDs Innovation Cell, GOI. NSS NSEC-Rotact Club significantly contribute to the society through outreach programmes and students won several awards and prizes in national and international Hackathons. One International Exchange Program with UMass for Afghanistan and visit by senior professors from USA, Australia, Italy and Japan.

Provide the weblink of the institution
http://nsec.ac.in/page.php?id=565

8.Future Plans of Actions for Next Academic Year

The Plans of Action for the Academic Year 2019-2020 as follows: A. Institution 1. Organize one International Conference for Convergence in Engineering 2. Effort to be earned for Autonomous status of the Institute 3. Accreditation from QS Ranking 4. The execution of VAT programme will be modified by inclusion of inside expert faculty members along with external vendors / industry experts and at least two evaluations will be conducted with the help of departmental faculty mentors 5. Admission process is to be strengthened. 6. Renovation of existing Seminar Hall and CCTV connectivity in all class rooms and lobby. 7. Awareness programmes and outreach activities: NSEC-Rotaract club will formed to carry out social activities round the year and promote positive thinking of the students. 8. Apply for Unnat Bharat Abhiyan Scheme for village adaptation under MHRD. 9. Institution Innovation Council (IIC) will form under MHRD's Innovation Cell, GOI. 10. CII-NSEC Innovation Club will submit proposal for its recognition as Host Institute for implementation of the scheme Support for Entrepreneurial and Managerial Development of MSMEs through Incubator. B. Departments 1. NBA for another four programmes: Applied Electronics Instrumentation Engineering, Mechanical Engineering, Information Technology and Civil Engineering 2. Organize interdisciplinary seminars and workshops on industry-academia innovative practices. 3. Arrange faculty development programmes for TIG group colleges. 4. Department-wise need based Value Added Domain Knowledge training 5. One/two faculty members are to be included in CDC to monitor explore the activities of training, placement and other career opportunities. 6. Proficiency Committee will form comprising senior faculty members and industry professionals to enhance the skill of coding starting from 1st year. C. Faculty 1. Participate in faculty development program 2. Submit research proposals for funding from government and non-government agencies. 3. Increase publication of research papers in reputed national and international journals patent and seek for patent. 4. More stress for innovative projects by students mentored by faculty members and in turn NSEC will become Innovation Centre/Hub 5. Project based VAT, where hands-on training will be imparted to realize prototypes D. Students 1. Academic discipline: Introduction of Praise and Punishment system 2. Measures adopted to enhance the rate of success at On Off Campus Recruitment 3. Start-up and entrepreneurship activities will be enhanced. 4. Proper mentoring to guide and encourage in GATE/GRE etc. for higher studies PSU sectors. 5. To enhance the programming skill among students, several tie-ups with several industries viz. Infosys, EPAM, Google Cloud Study Jam, Code Chef. 6. Special initiatives for Hands-on programming skill enhancement, online aptitude test series, Soft-skill language skill enhancement programmes.