NATIONAL ENGINEERING COLLEGE

(An Autonomous Institution, Affiliated to Anna University Chennai)

K. R. Nagar, Kovilpatti – 628 503

INTERNAL QUALITY ASSURANCE CELL

ANNUAL QUALITY ASSURANCE REPORT
2017 - 2018

Submitted to

National Assessment and Accreditation Council
Bangalore, India

CERTIFICATE

This is to certify that the Annual Quality Assurance Report 2017 -18 forwarded to the National Assessment and Accreditation Council, Bengaluru is compiled from the data collected from the official records and is true to the best of our knowledge and belief.

IQAC COORDINATOR
(Dr.K.Manisekar)

PRINCIPAL
(Dr.S.Shanmugavel)

CONTENTS

The Annual Quality Assurance Report (AQAR) of the IQAC

(For Autonomous Colleges)

Part – A

1.	Name of the Institution	:	**NATIONAL ENGINEERING COLLEGE** K.R.Nagar, Kovilpatti – 628 503
	Name of the Head of the institution	:	Dr.S.Shanmugavel, M.E., Ph.D.
	Designation	:	Principal
	Does the institution function from own campus	:	Yes
	Phone no./Alternate phone no.	:	04632-227441 / 04632-222502
	Mobile no	:	9488702250
	Registered Email	:	principal@nec.edu.in
	Alternate Email	:	iqac.nec@gmail.com
	Address	:	K.R.Nagar, Kovilpatti – 628 503, Thoothukudi Dist., Tamil Nadu
	City/Town	:	Kovilpatti
	State / UT	:	Tamil Nadu
	Pin Code	:	628 503
2.	Institutional Status	:	
	Autonomous Status *(provide the date of Conformant of Autonomous Status)*	:	23-05-2011
	Type of Institution	:	**Co-education**
	Location		**Rural**/~~Semi-urban/Urban~~
	Financial Status (please specify)	:	~~Grants-in-aid~~/ **UGC 2f and 12 (B)/ Self financing**
	Name of the IQAC Co-ordinator / Director	:	Dr.K.Manisekar
	Phone no. /Alternate phone no.	:	04632 – 222502 / 9442182502
	Mobile	:	9443002317
	IQAC e-mail address	:	iqac.nec@gmail.com
	Alternate Email address	:	deanacd@nec.edu.in
3.	Website address Web-link of the AQAR: (Previous Academic Year)	:	http://nec.edu.in/pdf/AQAR%202016-2017.pdf

4.	Whether Academic Calendar prepared during the year? if yes, whether it is uploaded in the Institutional website		Yes. Weblink: http://nec.edu.in/pdf/NEC%20Academic%20Calender%202017-18.pdf		
5.	Accreditation Details	:			

	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
	1st	B	2.5	2014	21.02.2014 – 20.02.2019
	1st Cycle Reassessment	B++	2.83	2017	22.02.2017 – 21.02.2022

6.	Date of Establishment of IQAC	:	06/06/2013
7.	Internal Quality Assurance System	:	IQAC Cell
7.1	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
12th IQAC Meeting	15.07.2017	24
13th IQAC Meeting	20.01.2018	25
Academic Administrative Audit (AAA)	07.06.2017-16.06.2017	207
	03.03.2018-13.03.2018	207
Participation in NIRF	17.01.2018	--
ISO Certification	-	--
NBA Audit	08.12.2017	ECE
	25.03.2017	CSE & EEE
Academic Quality Audit	19.08.2017	Mechanical, ECE, EEE, EIE, CSE, IT & Civil
	26.08.2017	S&H

Note: Some Quality Assurance initiatives of the institution are:
   (Indicative list)

- *Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback from all stakeholders collected, analyzed and used for improvements*
- *Academic Administrative Audit (AAA) conducted and its follow up action*
- *Participation in NIRF*
- *NBA*
- *Academic Quality Audit*

8.	Provide the list of Special Status conferred 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
	National Engineering College	DST – FIST (Level 0)	DST	2017	Rs. 90 Lakhs
		New generation innovation and Entrepreneurship development centre (NewGen IEDC)	NSTEDB & DST, New Delhi	2017	Rs.60 Lakhs
		NEC – Business Incubator Cell	MSME, New Delhi	2016-17	Rs.29.39 Lakhs

9.	Whether composition of IQAC as per latest NAAC guidelines *upload latest notification of formation of IQAC	:	Yes Web link - http://nec.edu.in/aboutiqac.php
10.	No. of IQAC meetings held during the year	:	2
	The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website	:	Yes. Web link -http://nec.edu.in/iqac%20minutes.php
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)
	'Live-in-lab' concept has been introduced to motivate the students to work under Swachh Bharat scheme in rural side developments. - Motivational activities have been initiated for students' start-ups. - Faculty members have been motivated and facilitated to attend faculty development training program in NITs/ IITs/IISC and other reputed institutions.
13.	Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

		PLAN OF ACTION	ACHIEVEMENTS / OUTCOMES
i.		More than 75 % of the students should be placed with medium salary of 4 lakhs per annum	49 % of the students have been placed with average salary of Rs. 3 lakhs per annum
ii.		More than 20 % of the students should get eligible scores in competitive examinations like GATE, Tofel, CAT, MAT, etc.,	2.3 % of students have got eligible scores in GATE, CAT and MAT exams.
iii.		More than 3 % of the students should be motivated / trained to become entrepreneurs.	1 % of students have been motivated and became entrepreneurs.
iv.		The average CGPA scored by the passed out students should be more than 7.5.	The average CGPA of the 2017-18 passed out students is 7.69.
v.		Each department should have ongoing R&D projects worth > 15 lakh.	50% of the departments have ongoing R&D projects worth more than 15 lakh.

	vi.	Each department should have ongoing industrial consultancy work worth Rs. 3 lakh.	Mechanical, EEE and CSE departments have ongoing industrial consultancy work of worth more than Rs.2 lakh.
	vii.	Faculties should be motivated to publish the research articles in high impact factor journals.	Totally 58 papers have been published in International journals with the impact factor ranging from 0.2 to 5.5 in the academic year 2017-18.
	viii.	All the faculty members should be encouraged to participate / present articles in international conferences / workshops / FDPs organized by other leading institutions.	Totally 153 Conferences and workshops in International and national level have been attended by the faculty members in the academic year 2017-18.
	ix.	Each department should organize Conference / workshops / FDP in every academic year.	EEE, EIE, CSE and IT departments have organized Faculty Development Training programs.
	x.	Every department should sign MoU with minimum 2 companies per year.	All the departments have signed MoU with minimum 2 companies in the academic year 2017-18.
	xi.	More number of students should be encouraged to undergo in-plant training / internship program / industrial projects.	In 2015 curriculum, it is made compulsory to undergo In-plant training and internship training program. So, all the students will be undergoing industrial training in leading industries during the semester vacation period.
	xii.	Every department has to develop at least one product every year.	10 products have been developed totally in the academic year 2017-18 with the fund sanctioned from NewGen IEDC.
	xiii.	Every year, it is proposed to initiate a start up through our alumni and faculty.	Two start ups have been initiated in the academic year 2017-18.
14.	Whether the AQAR was placed before statutory body?	:	Yes
	Name of the Statutory body :		Management
	Date of meeting(s)		08.06.2018
15.	Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning?	:	**Yes**. Interaction with NAAC committee on **19.01.2017**
16.	Whether institutional data submitted to AISHE	:	No
17.	Does the Institution have Management Information System? If yes, give a brief description and a list of modules currently operational. (Maximum 500 words)	:	Yes

To improve the productivity of our institution towards paperless administration, InsProPlus (Institution Productivity Plus) software serves as a perfect solution. At present, the modules in practice are as follows,

- Student Management

- Academic Management

- HR Management

- Hostel Management

- Central Library Management

- Finance Management

- COE Administration

- Certificate Issue

- Automatic SMS for absentee, e-circular notifications

- Performance reports, Access reports, online Entries and Enquiries

- Online web portal for staff and students

- Online leave apply and approval

- Online faculty recruitment process

The system helps the management, Director, Principal, HODs and faculty to view the academic details of the student. Also, parent/guardian can get assistance about their ward through mobile via SMS or web portal. InsproPlus for MIS has been installed and available at our college premises since august 2011.

PART – B

CRITERION I –CURRICULAR ASPECTS		

1.1	**Curriculum Design and Development**

1.1.1 Programmes for which syllabus revision was carried out during the Academic year

Name of programme	Programme Code	Dates of revision
---	----	----

1.1.2 Programmes / courses focused on employability/ entrepreneurship / skill development during the Academic year

Programme with Code	Date of Introduction	Course with Code	Date of Introduction
For all UG programmes	---	NCG28 – Critical and Creative Thinking	02nd Dec 2017
3 days Entrepreneurship Awareness Camp	---	Training programme	12 -14th July 2017 08 -10th August 2017
Two weeks FDP on Entrepreneurship	---	---	04 – 16th Dec 2017

1.2	**Academic Flexibility**

1.2.1 New programmes/courses introduced during the Academic year

Programme / Course	Date of Introduction
--	--

1.2.2 Programmes in which Choice Based Credit System (CBCS) / Elective Course System implemented at the College level during the Academic year.

Name of Programmes adopting CBCS	UG	PG	Date of implementation of CBCS / Elective Course System	UG	PG
Already adopted (2015-16)				**June 2015**	**June 2015**

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**
Yoga for youth empowerment	June 2015	209

1.3.2	Field Projects / Internships undertaken during the year	
	Project / Programme Title	**No. of students enrolled for Field Projects / Internships**
	NSS Special Camp was conducted at Villiseri Village, Kovilpatti Taluk by NSS volunteers from 26.02.2018 to 04.03.2018	100
	Free Eye Medical Camp was conducted by NSS units of our college in association with Dr.R.Ramakrishnan of Aravind Eye Hospital, Tirunelveli on 03.03.2018	• 64 students • 208 patients were screened and 30 patients were admitted for cataract surgery
	Internship Training program – Mechanical Engineering Department	• 17 students
	Internship Training program – Civil Engineering Department	• 93 students
	Internship Training program – Electrical and Communication Engineering Department	• 4 students
	Internship Training program – Electrical and Electronics Engineering Department	• 3 students
	Internship Training program – Electrical and Instrumentation Engineering Department	• 3 students
	Internship Training program – Computer Science and Engineering Department	• 8 students
	Internship Training program – Information Technology Department	• 14 students

1.4	**Feedback System**
1.4.1	Whether structured feedback received from all the stakeholders

1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents
Yes	**Yes**	**Yes**	**Yes**	**Yes**

1.4.2	How the feedback obtained is being analyzed and utilized for overall development of the Institution? (maximum 500 words) Students' feedback about each course in a semester is obtained through online system using InsProPlus software at the end of the semester. In addition, the feedback on teaching & learning is obtained through Course End Survey and Exit surveys from passed out students. Both Course outcome evaluations and Staff Evaluation are being done through the students' feedback. Staff Evaluation Reports, Students Feedback Report and Staff Self Appraisal are discussed and corrective measures are planned during the IQAC meetings.

	CRITERION II -TEACHING-LEARNING AND EVALUATION
2.1	**Student Enrolment and Profile**
2.1.1	Demand Ratio during the year

Name of the Programme	Number of seats available	Number of applications received	Students Enrolled
UG Degree Programmes	660	Filled through Anna University	649
PG Degree Programme	115	Chennai single window system	17

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 full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2017-18	2781	37	198	19	60

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	Number of smart classrooms	E-resources and techniques used
217	217	Smart classroom with tools, Smart TV, Projectors	37	8	NPTEL, SWAYAM

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

Every student will be under the care and guidance of a faculty who is appointed as his/her mentor/tutor. About 20 students will be assigned to each mentor/tutor who will also act as their local guardian and assist them in all matters of academic as well as other activities. Further, the tutor will also help the students in registering the courses, monitor their attendance and progress and council them periodically. If necessary, the tutor may also discuss with or inform the parents about the progress of the students through the concerned Head of the department. The mentor will maintain a record sheet for each of his/her ward. The record sheet contains all information concerning the students 'attendance, marks obtained in the university examinations, monthly tests, achievements if any in curricular, co-curricular and extra-curricular activities and disciplinary proceedings if any taken against the student.

Student mentoring plays a vital role in a student's life. Hence, the students are advised to meet their mentor frequently and discuss their problems freely with them. They should also take care to see that all information concerning their progress and achievements in the college are duly entered in the record sheet.

	Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio	
	2818	217	1:13	

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
34	34	--	34	3

2.4.2	**Honors and recognitions 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*
2017 – 18	Dr.T.Vigraman	Asso. Prof. (SG) / Mechanical Engg	Teaching Excellence at Indo Global Education Summit & Expo 2017, Chennai.
	Dr.B.Sankaragoamthi	Prof. / EIE	"Life Time Achievement Award" through DK International Research Foundation Faculty Awards 2018.

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
UG / PG degree programme	Odd semester	II, III & IV year	06.10.2017 / 23.10.2017	08.01.2018
UG / PG degree programme	Odd semester	I year	08.12.17	27.01.2018
UG / PG degree programme	Even semester	IV year	22.03.2018 / 02.04.2018	14.05.2018
UG / PG degree programme	Even semester	II & III year	22.03.2018 / 02.04.2018	Not yet declared
UG / PG degree programme	Even semester	I year	11.05.18	Not yet declared

2.5.2	Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

Do not include re-evaluation/ re-totalling

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
November'2017 - 102	2060	4%
April'2018 - 62	2060	4%

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)

1.	B.E. Mech	http://nec.edu.in/academic/R-2015%20Mechanical%20Syllabus.pdf
2.	B.E. ECE	**http://nec.edu.in/academic/R-%202015%20ECE%20Curriculum%20&%20Syllabus.pdf**
3.	B.E. CSE	**http://nec.edu.in/academic/R-2015%20%20CSE%20curriculum%20&%20syllabus.pdf**
4.	B.E. EEE	**http://nec.edu.in/academic/R-2015%20EEE%20curriculum%20&%20syllabus.pdf**
5.	B.E. EIE	**http://nec.edu.in/academic/R-2015%20EIE%20Curriculum%20&%20Syllabus.pdf**
6.	B.E Civil	**http://nec.edu.in/academic/R-2015%20CIVIL%20curriculum%20&%20syllabus.pdf**
7.	B.Tech. IT	**http://nec.edu.in/academic/R-2015%20IT%20Curriculum%20&%20Syllabus.pdf**

2.6.2	Pass percentage of students

Programme Code	Programme name	Number of students appeared in the final year examination	Number of students passed in final Semester /year examination	Pass Percentage
B.E.	Mechanical Engineering	145	93	64.14
B.E.	Electronics and Communication Engg	133	98	73.68
B.E.	Computer Science and Engineering	121	80	66.12
B.E.	Electrical and Electronics Engineering	139	93	66.91
B.E.	Electronics and Instrumentation Engg	54	44	81.48
B.E.	Civil Engineering	68	60	88.24
B.Tech.	Information Technology	56	47	83.93
M.E.	Energy Engineering	2	2	100
M.E.	Communication Systems	2	2	100
M.E.	Computer Science and Engineering	8	6	75
M.E.	High Voltage Engineering	2	2	100
M.E.	Embedded system Technologies	8	8	100
M.E.	Control & Instrumentation	–	–	–
M.Tech.	Information and Cyber warfare	–	–	–

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) weblink: http://nec.edu.in/collegeproject.php

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1	**Promotion of Research and Facilities**
3.1.1	The institution provides seed money to its teachers for research, if, yes give details **NO**

Name of the teacher getting seed money	The amount of seed money	Year of receiving grant	Duration of the grant
-	-	-	-

3.1.2	Teachers awarded National/International fellowship for advanced studies/ research during the year

	Name of the teacher awarded the fellowship	Name of the Award	Date of Award	Awarding Agency
National	-	-	-	-
International	-	-	-	-

3.2	**Resource Mobilization for Research**
3.2.1	Research funds sanctioned and received from various agencies, industry and other organizations

Nature of the Project	Duration	Name of the funding Agency	Total grant Sanctioned in lakh	Amount received during the year
Major Project (ECE)	2015-2018	DST (TDT)	24.4136	15.813
Major Project (ECE)	2.5 years	DRDO	9.85	6.4
Major Project (CSE)	2016-2018	DRDO	12.195	12.195
Major Project (S&H)	2014-2017	BRNS (DAE)	25.7135	24.97039
Major Project (S&H)	2015-2018	DST	44.25	41.07
Major Project (S&H)	2015-2017	BRNS (DAE)	25.2465	23.7894
Major Project (S&H)	3 years	DST (SERB)	26.1932	9.452
Minor Project (EEE)	2017-2018	UGC	4.40	4.10
Minor Project (CSE)				
Interdisciplinary Projects				
Industry sponsored Projects	1 year	TATA Power SED	3.60	--
Projects sponsored by the University / College				
Students Research Projects *(other than compulsory by the College)*	2017 – 18	NewGen IEDC	25.00	25.00

Students Research Projects *(other than compulsory by the College)*	2017-18	IE (I)	0.60	0.60	
		TNSCST	0.10	0.10	
International Projects					
Any other (Specify)	2017 – 18	MSME, New Delhi	29.39	8.81	
	2017 – 18	Alumni Fund		0.50	
Total			230.9518	172.7998	

3.2.2 | Number of ongoing research projects per teacher funded by government and non-government agencies during the years

Dept.	Funding agency	Ongoing research project	Principal Investigator	Amount	Period
MECH	BRNS	Optimization of grain size for improving fatigue strength of 304 Hcu	Dr.D.Ravindran Dr.S.L.Mannan	33,52,500	2014-17
ECE	DST (TDT)	Fully Automated Coconut harvesting Machine	Dr.S.Tamilselvi Mr. N.Arumugam Mr. T.Devakumar	24,41,360	2015-18
Chemistry (S&H)	BRNS (DAE)	Syntheses of novel bifunctional chelating agents and biomolecule - BPCA conjugates for complexation with copper, rhenium, gallium, technetium and lutetium radionuclide's for possible applications in radio pharmaceutical applications	Dr.M.A.Neelakantan Prof. & Head / S&H	24,24,500	2014-17
Chemistry (S&H)	DST	Synthesis, Structural Characterization, Stability and Chemical nuclease activity of some Cu(II) and Zn(II) complexes containing imidazole and pyridine	Dr.M.A.Neelakantan Prof. & Head / S&H	44,25,000	2015-18
Chemistry (S&H)	BRNS (DAE)	Spatial Distribution of Uraninan and associated water quality parameters in 5 Districts of Tamil Ndau	Dr.M.A.Neelakantan Prof. & Head / S&H Dr.S.S.Mariappan Asso.Prof.(SG)	25,24,650	2015-17
CSE	DRDO	Studies in Cellular Automata with its Applications on Cryptography	Dr.B.Paramasivan Prof & Head / CSE Dr.K.Mohaideen Pitchai, Asso. Prof Ms.M.Bhuvaneswari	12,19,500	2016 -18
CSE	EPICS in IEEE	Castalk: A smart cloud platform between normal and deaf people.	Dr.V.Gomathi, Prof./CSE	5,24,402	2016 - 17
CSE	IE(I)	Automated Robotic weed eradication system using embedded techniques	Dr.V.Kalaivani, Prof./CSE	60,000	2017 - 18
ECE	DRDO	Study on Non Cooperative target Classification algorithm using Statistical techniques	Dr.A.Shenbagavalli, Prof. & Head/ECE Mr.V.R.S.Mani, Asso.Prof/ECE	9,85,000	2017 - 18

		EEE	UGC	Real Time Implementation of PID Controller for Single Phase Buck-Boost Power Factor Correction Converter using Evolutionary Computation	Mr.M.P.E.Rajamani, Asst.Prof (SG)/EEE	4,10,000	2016 - 18
		S&H	DST (SERB)	Designing of novel benzothiazole derivatives and their Cu(II), Fe(II/III) and Al(III) Complexes in Alzheimer's disease	Dr.S.Thalamuthu, AP(SG) / S&H Dr.M.A.Neelakantan, Prof. & Head / S&H	27,66,948	2017 - 20

3.3	**Innovation Ecosystem**
3.3.1	Workshops/Seminars Conducted on Intellectual Property Rights **(IPR)** and Industry-Academia Innovative practices during the year

Title of Workshop/Seminar	Resource person	Name of the Dept.	Date(s)
Student Leadership Development Programme	Dr.P.EsakkiMuthu, Chief Scientist, River Silca, Bengaluru	All I year UG students	Throughout the academic year
Guest Lecture	Mr. L.Gnana Michael Prakasam, Chief Scientist, River Silca, Bengaluru	ECE	16-02-2018
	Mr.V.Senthil Kumar, Scientist-SG, Division Head, Antenna and Passive System Division, ISRO Satellite Centre, Bangaluru		14-07-2017
	Mr.P.Murugavel, Scientist-E, Indian Institiute of Trophic Meteorology, Pune		14-07-2017
	Mr.A.Kannan, JASMINE Info Tech Delivery Manager, Chennai		8-12-2017
	Mr.Srinivasan, TCS Software Engineer, Chennai		8-12-2017
	Mr.A.Krishnan, TCS Software Engineer, Chennai		8-12-2017
	Mr.K.JeyaGanesh, Infosys Software Engineer, Bangaluru		8-12-2017
	Mr.Prabhakaran, TCS Software Engineer, Chennai		8-12-2017
	Mr.Andrew Roobert, Research Scholar Thiagarajar College of Engineering, Madurai.		8-12-2017
	Mr.Muthukumar, Maffire, Software Engineer, Nagarkovil		8-12-2017
	Ms.T.Menaga, TCS Assistant System Engineer		2-02-2018
	Dr. G.R. Nagabhushana, IISc, Bangalore	EEE	06.11.2017
	Dr. Santosh Kumar Annadurai, GE T&D India Ltd., Chennai		17.11.2017
	Mr.D.Anesh Kavi, NLC India Ltd, Neyveli		27.12.2017
	Mr.G.S. Ayyappan, Scientist/CSIO, Chennai	EIE	25.10.2017
	Mr.Shankar, CEO,Mathimigal Tech. Pvt., Bengaluru.		26.10.2017
	Dr.S.Arumugaperumal, IETE Chairman, Trivandrum Section		26.10.2017
	Mr.Karthikeyen, MD, Control soft PVT Ltd, Chennai		27.10.2017
	Mr.Sathiyaraj, TeamLeader-R&D, Vi Microsystems Pvt. Ltd., Chennai		27.10.2017

Dr. Sabitha Ramakrishnan, MIT Campus, Anna University			27.10.2017
Mr.D.Mahesh, Founder and First Officer(FFO), Seyal Spinning Mill, Vellakoil			01.09.2017
Mr.S.Ashokan, Manager(T&CC),National Thermal Power Corporation Ltd, Chennai.			23.02.2018
Mr.C.Bebin Suresh, Director-DevOps, Unified Technology Office Capgemini India, Bangalore			21.04.2018
Mr.Antony Dasan Arravindh, HCL Technologies Limited, Chennai			18.11.2017 & 21.04.2018
Dr. SP. Rahmesh, HCL Technologies Limited, Chennai			18.11.2017 & 21.04.2018
Mr.K.N.Visveswaran, Hexaware Technologies Limited Chennai		CSE	21.04.2018
Mr.D. Rajesh Kannan, Tata Consultancy Services, Chennai			21.04.2018
Ms.G.Maria Justin Mary, Honeywell Technology Solutions, Madurai			18.11.2017
Mr.S.Vignesh Kandasamy, Cognizant Technology Solutions, Coimbatore			04.07.2017
Mr.S.Arun, Wipro Technologies, Coimbatore			13.07.2017
Mr.Ganesh Murthy, HP, Bangalore			19.08.2017
Mr.V.Srikanth, Cognizant Technology Solutions,Chennai			13.07.2017
Mr.T.Kanagaraj, Deputy General Manager, Ozone Project Pvt. Ltd., Chennai			30.06.2017
Mr.K.Arumugam, Manager, PPC Material Management, Hyundai Motor India Ltd., Chennai		MECH	19.07.2017
Mr.Christopher Gnanaraj, Head of section, Equipment purchase, Hyundai motor India limited, Chennai			08.03.2018
Mr.P.Sri Ram, Vice President (Operations and Manufacturing Engineering) Daimler India Commercial Vehicles Pvt. Ltd., Chennai)			17.03.2018

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

Title of the innovation	Name of the Awardee	Awarding Agency	Date of Award	Category
Coconut Grading Machine	Mr. M.Veera Shanthi Ram	DAAD - German Academic Exchange Service and DWIH - German House for Research and Innovation New Delhi	7th April 2018	**Falling Walls Lab India 2018**

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

Incubation Centre	Name	Sponsored by
MSME recognized Business Incubator	NEC – Business Incubation Centre	MSME, NEWDELHI

Name of the Start-up	Nature of Start-up	Date of commencement
AUTOWELKIN	To Connect Junkyards of AUTO spares	Company Registered (14th May 2018)
SUVADI	For the Collection of old Books	Yet to register

3.4	**RESEARCH PUBLICATIONS AND AWARDS**

3.4.1 Ph. Ds awarded during the year

Name of the Department	**No. of Ph. Ds Awarded**
B.E. – Mechanical Engineering	2
B.E. – Electrical and Communication Engineering	1
B.E. – Electrical and Electronics Engineering	1
B.E. – Electronics and Instrumentation Engineering	1
Science and Humanities	2

3.4.2 Research Publications in the Journals notified on UGC website during the year

	Department	**No. of Publication**	**Average Impact Factor, if any**
National & International	Mechanical Engg.,	10	Average – 1.2 Range - 0.2 to 5.5
	ECE	09	
	S&H	11	
	CSE	04	
	IT	07	
	EIE	08	
	EEE	09	

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

Department	**No. of Publication in Conference proceedings**
BE. Electrical and Electronics Engineering	2
B.Tech. Information Technology	19
BE. Electrical and Communications Engineering	13
BE. Electrical and Instrumentation Engineering	10
BE. Mechanical Engineering	2
BE. Computer Science and Engineering	12
Science and Humanities	8

3.4.4	Patents published/awarded during the year

Patent Details	Patent status **Published/ Filed**	Patent Number / **C.B.R. No**	Date of Award
System and Method for Instinctive Monitoring of Infants	Filed	201741043400 / 37270	-
Thermal Imaging based Identification of Alkaloids in Vinca Rosea	Filed	201741043401 / 37270	-
Tree Climber Apparatus	Filed	201741044490 / 38087	-
Heat Resisting Intermediate Panels for Cold Items Container-Product through Charcoal waste of water treatment plant	Filed	5533/CHE/2014 / 22337	--
An Improved hydraulically operated single step Coconut Dehusker	Filed	201641021350 / 13931	--

3.4.5	Bibliometrics of the publications during the last Academic year based on average citation index in Scopus / Web of Science or Pub Med/ Indian Citation Index

Title of the paper	Name of the author	Title of the journal	Year of publication	Institutional affiliation as mentioned in the publication	Number of citations excluding self citations
Model based multivariable control scheme in a reset configuration for stable multivariable systems	Pathiran A.R., Jagadeesan P.	Canadian Journal of Chemical Engineering	2018	National Engineering College, Kovilpatti	--
Experimental and theoretical studies on vanadium bromoperoxidase activity of alkyne arm dioxidovanadium(V) complex: Crystal structure, spectral studies, and DFT calculations	Neelakantan M.A., Balakrishnan C., Kowsalya P., Selvarani V.	Polyhedron	2018	National Engineering College, Kovilpatti	--
Performance studies on dielectric and physical properties of eco-friendly based natural ester oils using semi-conductive nanocomposites for power transformer application	Thirugnanam A.R.P.R., Siluvairaj W.I.M., Karthik R.	IET Science, Measurement and Technology	2018	National Engineering College, Kovilpatti	--

		Title	Authors	Journal	Year	Publisher	Citations
		Interaction of Amino Acid Schiff Base Metal Complexes with DNA/BSA Protein and Antibacterial Activity: Spectral Studies, DFT Calculations and Molecular Docking Simulations	Neelakantan M.A., Balamurugan K., Balakrishnan C., Subha L.	Applied Organometallic Chemistry	2018	National Engineering College, Kovilpatti	--
		DNA/BSA binding interactions and VHPO mimicking potential of vanadium (IV) complexes: Synthesis, structural characterization and DFT studies	Neelakantan M.A., Balakrishnan C., Selvarani V., Theetharappan M.	Applied Organometallic Chemistry	2018	National Engineering College, Kovilpatti	--
		Framework for Fast and Efficient Cloud Video Transcoding System Using Intelligent Splitter and Hadoop MapReduce	Kesavaraja D., Shenbagavalli A.	Wireless Personal Communications	2018	National Engineering College, Kovilpatti	--
		Optimization using Artificial Bee Colony based clustering approach for big data	Ilango S.S., Vimal S., Kaliappan M., Subbulakshmi P.	Cluster Computing	2018	National Engineering College, Kovilpatti	1
		Automated recognition of ROIs for breast thermograms of lateral view-a pilot study	Josephine Selle J., Shenbagavalli A., Sriraam N., Venkatraman B., Jayashree M., Menaka M.	Quantitative InfraRed Thermography Journal	2018	National Engineering College, Kovilpatti	--
		Mitigation of non linear effects using non linear transform in dispersion managed coherent optical OFDM systems	Rishi P., Tamilselvi S.	Journal of Computational and Theoretical Nanoscience	2018	National Engineering College, Kovilpatti	--
		Crystal structure and bio-catalytic potential of oxovanadium (IV) Schiff base complexes derived from 2-hydroxy-4-(prop-2-yn-1-yloxy) benzaldehyde and alicyclic / aromatic diamines	Balakrishnan C., Neelakantan M.A.	Inorganica Chimica Acta	2018	National Engineering College, Kovilpatti	1
		Design and implementation of model predictive controller for	Leema Rose J., Sankaragomathi B.	Journal of Computational and Theoretical Nanoscience	2018	National Engineering College, Kovilpatti	--

digitally controlled Ä†uk converters						
Investigation on the properties of natural esters blended with mineral oil and pyrolysis oil as liquid insulation for high voltage transformers	Bakrutheen M., Willjuice Iruthayarajan M., Senthil Kumar S.	Lecture Notes in Electrical Engineering	2018	National Engineering College, Kovilpatti	--
Performance enhancement of a building-integrated photovoltaic module using phase change material	Karthick A., Murugavel K.K., Ramanan P.	Energy	2018	National Engineering College, Kovilpatti	2
Microanaurysms identification using computational intelligence approach in two dimensional fundus images for detection of Diabetic Retinopathy	Karkuzhali S., Manimegalai D.	International Journal of Pure and Applied Mathematics	2018	National Engineering College, Kovilpatti	--
Integration of wind power generators for the enhancement of profit by optimal allocation of SVC	Nagalakshmi S., Rohini R.C., Balakiruthiha S.	Lecture Notes in Electrical Engineering	2018	National Engineering College, Kovilpatti	--
Tolerance allocation of complex assembly with nominal dimension selection using Artificial Bee Colony algorithm	Vignesh Kumar D., Ravindran D., Lenin N., Siva Kumar M.	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science	2018	National Engineering College, Kovilpatti	--
Predicting membrane protein types using various decision tree classifiers based on various modes of general PseAAC for imbalanced datasets	Sankari E.S., Manimegalai D.	Journal of Theoretical Biology	2017	National Engineering College, Kovilpatti	--
Honest Auction Based Spectrum Assignment and Exploiting Spectrum Sensing Data Falsification Attack Using Stochastic Game Theory in Wireless Cognitive Radio Network	Subbulakshmi P., Prakash M., Ramalakshmi V.	Wireless Personal Communications	2017	National Engineering College, Kovilpatti	--
Crystal structure, theoretical and experimental electronic structure	Gandhimathi S., Theetharappan M., Bhuvanesh N.S.P., Neelakantan M.A.	Polyhedron	2017	National Engineering College, Kovilpatti	2

and DNA/BSA protein interactions of nickel(II) N2O2 tetradentate Schiff base complexes					
Assorted carrier-variable frequency-random PWM scheme for voltage source inverter	Paramasivan M., Paulraj M.M., Balasubramanian S.	IET Power Electronics	2017	National Engineering College, Kovilpatti	1
Comparative analysis on classical laminated plate theory and higher order lamination plate theory for cross-ply FRP composite structures	Ramaswamy S., Rajadurai J.S., Moshi A.A.M.	Journal of Computational and Theoretical Nanoscience	2017	National Engineering College, Kovilpatti	--
Influence of dopant concentration on the structural, optical and magnetic properties of nickel doped SnO2 nanoparticles	Gomathy P., Sundar S.M.	Journal of Materials Science: Materials in Electronics	2017	National Engineering College, Kovilpatti	--
A cluster based intrusion detection system for homogeneous and heterogeneous mobile ad hoc network	Sankar Ganesh S., Ramar K.	Journal of Computational and Theoretical Nanoscience	2017	National Engineering College, Kovilpatti	--
Retreatment of aged mineral oil using semiconductive nanocomposites for power transformer application	Ramaian Thirugnanam A.R.P., Maria Siluvairaj W.I., Radha K.	International Transactions on Electrical Energy Systems	2017	National Engineering College, Kovilpatti	--
Improved dynamic response of isolated full bridge DC to DC converter using BATA optimization tuned fuzzy sliding mode controller for solar applications	Anand R., Arun Samuel T.S., Melba Mary P.	International Journal of Hydrogen Energy	2017	National Engineering College, Kovilpatti	--
Collaborative approach on mitigating spectrum sensing data hijack attack and dynamic spectrum allocation based on CASG modeling in wireless cognitive radio networks	Vimal S., Kalaivani L., Kaliappan M.	Cluster Computing	2017	National Engineering College, Kovilpatti	1
An efficient secured multicast routing protocol for wireless	Sampradeepraj T., Anusuya Devi V., Chitra D.	Research Journal of Biotechnology	2017	National Engineering College,	--

	Title	Authors	Journal	Year	Affiliation	Citations
	sensor network using identity-based cryptography and its application in biomedical research				Kovilpatti	
	A professional estimate on the computed tomography brain tumor images using SVM-SMO for classification and MRG-GWO for segmentation	Ramakrishnan T., Sankaragomathi B.	Pattern Recognition Letters	2017	National Engineering College, Kovilpatti	1
	A hybrid random perturbation approach for privacy preservation in perturbated data	Chidambaram S., Srinivasagan K.G.	Journal of Computational and Theoretical Nanoscience	2017	National Engineering College, Kovilpatti	--
	Structural characterization, surface characteristics and non covalent interactions of a heterocyclic Schiff base: Evaluation of antioxidant potential by UV "visible spectroscopy and DFT	Chithiraikumar S., Gandhimathi S., Neelakantan M.A.	Journal of Molecular Structure	2017	National Engineering College, Kovilpatti	2
	Enhanced Cooperative Spectrum Sensing in CRAHNs Using Distributed Dynamic Load-Balanced Clustering Scheme	Muthukkumar R., Manimegalai D.	Wireless Personal Communications	2017	National Engineering College, Kovilpatti	--
	Facial expression recognition using a hybrid kernel based extreme learning machine	Carmel Sobia M., Abudhahir A.	Journal of Computational and Theoretical Nanoscience	2017	National Engineering College, Kovilpatti	--
	Enhancing cooperative spectrum sensing in cognitive radio ad hoc networks using priority-based two-stage detection model	Muthukkumar R., Manimegalai D.	Wireless Networks	2017	National Engineering College, Kovilpatti	--
	Node level anomaly mitigation through trustworthy computation based election of forwarding nodes	Gowri M., Paramasivana B.	Journal of Ovonic Research	2017	National Engineering College, Kovilpatti	--

	Game Theory Based Defense Technique for Jamming Attacks in Mobile Ad Hoc Networks	Vadhana Kumari S., Paramasivan B.	Journal of Computational and Theoretical Nanoscience	2017	National Engineering College, Kovilpatti	--
	Defense against Sybil attacks and authentication for anonymous location-based routing in MANET	Vadhana Kumari S., Paramasivan B.	Wireless Networks	2017	National Engineering College, Kovilpatti	1
	Noncovalent interactions from electron density topology and solvent effects on spectral properties of Schiff bases	Gandhimathi S., Balakrishnan C., Theetharappan M., Neelakantan M.A., Venkataraman R.	Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy	2017	National Engineering College, Kovilpatti	4
	Tuning of robust PID controller with filter for SISO system using evolutionary algorithms	Rathinam M., Maria Siluvairaj W.I., Ramaveerapathiran A.	Studies in Informatics and Control	2017	National Engineering College, Kovilpatti	1
	Computational intelligence-based Decision Support System for glaucoma detection	Karkuzhali S., Manimegalai D.	Biomedical Research (India)	2017	National Engineering College, Kovilpatti	1
	A zwitterionic pH responsive ESIPT-Based fluorescence "Turn-On" Al3+ ion sensing probe and its bioimaging applications	Balakrishnan C., Neelakantan M.A., Banerjee S.	Sensors and Actuators, B: Chemical	2017	National Engineering College, Kovilpatti	1
	Magnetic Flux Leakage (MFL) based defect characterization of steam generator tubes using artificial neural networks	Daniel J., Abudhahir A., Paulin J.J.	Journal of Magnetics	2017	National Engineering College, Kovilpatti	1
	Dual-tree complex wavelet with modified SPIHT algorithm for video compression	Muthulakshmi K., Seenivasagam V.	International Journal of Biomedical Engineering and Technology	2017	National Engineering College, Kovilpatti	--
	Analytical approach and simulation of GaN single gate TFET and gate all around TFET	Arun Samuel T.S., Arumugam N., Chandra S.T.	Transactions on Electrical Engineering, Electronics, and Communications	2017	National Engineering College, Kovilpatti	--
	Automatic generation control in deregulated power system using	Priyadarsini S.A., Melba Mary P., Iruthayarajan M.W.	Applied Mathematics and Information	2017	National Engineering College,	--

		genetic algorithm optimized fuzzy controller		Sciences		Kovilpatti	
		Influence of metal powder premixing on mechanical behavior of dual reinforcement (Al2O3 (Î¼m)/Si3N4 (nm)) in AA6061 matrix	Hariharasakthisudhan P., Jose S.	Journal of Alloys and Compounds	2018	National Engineering College, Kovilpatti	--
		Dry sliding wear behaviour of single and dual ceramic reinforcements premixed with Al powder in AA6061 matrix	Hariharasakthisudhan P., Jose S., Manisekar K.	Journal of Materials Research and Technology	2018	National Engineering College, Kovilpatti	--
		Combined effect of nano clay and fibre surface treatment on mechanical behaviours of Palmyra fruit fibre/MMT clay reinforced polyester hybrid composite	Irullappasamy S., Ravindran D.	International Journal of Computer Aided Engineering and Technology	2018	National Engineering College, Kovilpatti	--
		Finite Element Analysis of Heat Input Effect on Temperature, Residual Stresses and Distortion in Butt Welded Plates	Venkatkumar D., Ravindran D., Selvakumar G.	Materials Today: Proceedings	2018	National Engineering College, Kovilpatti	--
		Computational fluid dynamics based experimental analysis of solar tunnel dryer for tapioca using aluminium and copper absorber plate	Subbian V., Kalidasa Murugavel K.	Journal of Computational and Theoretical Nanoscience	2017	National Engineering College, Kovilpatti	--
		Experimental investigation of thermal performance of a single and double pass solar air heater with arc like structures as the absorber plate	Sam Stanley S.G., Kalidasa Murugavel K.	Journal of Computational and Theoretical Nanoscience	2017	National Engineering College, Kovilpatti	--
		Enhancement of integrated solar still using different new absorber configurations: An experimental approach	Samuel Hansen R., Kalidasa Murugavel K.	Desalination	2017	National Engineering College, Kovilpatti	--

3.4.6	h-index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the paper	Name of the Author	Title of the Journal	Year of Publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citations
Speed control of switched reluctance motor with torque ripple reduction using non-dominated sorting genetic algorithm (NSGA-II)	Kalaivani L., Subburaj P., Willjuice Iruthayarajan M.	International Journal of Electrical Power and Energy Systems	2013	26	National Engineering College, Kovilpatti	26
Investigation of microstructure and mechanical properties of aluminum hybrid nano-composites with the additions of solid lubricant	Ravindran P., Manisekar K., Vinoth Kumar S., Rathika P.	Materials and Design	2013	26	National Engineering College	26
Effect of phase transformation and intermetallic compounds on the microstructure and tensile strength properties of diffusion-bonded joints between Ti-6Al-4V and AISI 304L	Vigraman T., Ravindran D., Narayanasamy R.	Materials and Design	2012	27	National Engineering College	27
Effect of axial force on microstructure and tensile properties of friction stir welded AZ61A magnesium alloy	Razal Rose A., Manisekar K., Balasubramanian V.	Transactions of Nonferrous Metals Society of China (English Edition)	2011	30	National Engineering College	30
Enhancing the critical characteristics of natural esters with antioxidants for power transformer applications	Raymon A., Pakianathan P., E. Rajamani M.P., Karthik R.	IEEE Transactions on Dielectrics and Electrical Insulation	2013	32	National Engineering College	32
Optimum manufacturing tolerance to selective assembly technique for different assembly specifications by using genetic algorithm	Kumar M.S., Kannan S.	International Journal of Advanced Manufacturing Technology	2007	33	National Engineering College	33
Thermal creep properties of alloy D9 stainless steel and 316 stainless	Latha S., Mathew M.D., Parameswaran P., Bhanu	International Journal of Pressure Vessels and Piping	2008	34	National Engineering College	34

steel fuel clad tubes	Sankara Rao K., Mannan S.L.					
Influence of fibre treatments on mechanical properties of short Sansevieria cylindrica/polyester composites	Sreenivasan V.S., Ravindran D., Manikandan V., Narayanasamy R.	Materials and Design	2012	35	National Engineering College	35
Performance evaluation of handoff detection schemes	Marichamy P., Chakrabarti S., Maskara S.L.	IEEE Region 10 Annual International Conference, Proceedings/TENCON	2003	35	National Engineering College	35
Multilevel thresholding for segmentation of medical brain images using real coded genetic algorithm	Manikandan S., Ramar K., Willjuice Iruthayarajan M., Srinivasagan K.G.	Measurement: Journal of the International Measurement Confederation	2014	39	National Engineering College	39
Application of extreme learning machine for series compensated transmission line protection	Malathi V., Marimuthu N.S., Baskar S., Ramar K.	Engineering Applications of Artificial Intelligence	2011	44	National Engineering College	44
Intelligent approaches using support vector machine and extreme learning machine for transmission line protection	Malathi V., Marimuthu N.S., Baskar S.	Neurocomputing	2010	44	National Engineering College	44
Mechanical properties of randomly oriented short Sansevieria cylindrica fibre/polyester composites	Sreenivasan V.S., Ravindran D., Manikandan V., Narayanasamy R.	Materials and Design	2011	45	National Engineering College	45
Flow shop scheduling with multiple objective of minimizing makespan and total flow time	Ravindran D., Selvakumar S.J., Sivaraman R., Haq A.N.	International Journal of Advanced Manufacturing Technology	2005	46	National Engineering College	46
Tribological behaviour of powder metallurgy-processed aluminium hybrid composites with the addition of graphite solid lubricant	Ravindran P., Manisekar K., Narayanasamy R., Narayanasamy P.	Ceramics International	2013	56	National Engineering College	56
A review of different methods to enhance the productivity of the multi-effect solar still	Rajaseenivasan T., Murugavel K.K., Elango T., Hansen R.S.	Renewable and Sustainable Energy Reviews	2013	56	National Engineering College	56

The first vitamin B6 zinc complex, pyridoxinato-zinc acetate: A 1D coordination polymer with polar packing through strong inter-chain hydrogen bonding	Chamayou A.-C., Neelakantan M.A., Thalamuthu S., Janiak C.	Inorganica Chimica Acta	2011	56	National Engineering College	56
Synthesis, characterization and biocidal activities of some schiff base metal complexes	Neelakantan M.A., Esakkiammal M., Mariappan S.S., Dharmaraja J., Jeyakumar T.	Indian Journal of Pharmaceutical Sciences	2010	57	National Engineering College	57
Multi-objective robust PID controller tuning using two lbests multi-objective particle swarm optimization	Zhao S.-Z., Iruthayarajan M.W., Baskar S., Suganthan P.N.	Information Sciences	2011	58	National Engineering College	58
Tribological properties of powder metallurgy - Processed aluminium self lubricating hybrid composites with SiC additions	Ravindran P., Manisekar K., Rathika P., Narayanasamy P.	Materials and Design	2013	59	National Engineering College	59
Histogram modified local contrast enhancement for mammogram images	Sundaram M., Ramar K., Arumugam N., Prabin G.	Applied Soft Computing Journal	2011	61	National Engineering College	61
N-o -Vanillylidene-l -histidine: Experimental charge density analysis of a double zwitterionic amino acid schiff-base compound	Neelakantan M.A., Chamayou A.-C., Thalamuthu S., Avadhut Y.S., Schmedt Auf Der GÃ¼nne J., Banerjee S., Janiak C.	Crystal Growth and Design	2010	64	National Engineering College	64
Microstructural, physico-chemical and mechanical characterisation of Sansevieria cylindrica fibres - An exploratory investigation	Sreenivasan V.S., Somasundaram S., Ravindran D., Manikandan V., Narayanasamy R.	Materials and Design	2011	67	National Engineering College	67
Computer-aided detection of breast cancer on mammograms: A swarm intelligence optimized wavelet neural network approach	Dheeba J., Albert Singh N., Tamil Selvi S.	Journal of Biomedical Informatics	2014	71	National Engineering College	71

Application of factorial techniques to study the wear of Al hybrid composites with graphite addition	Ravindran P., Manisekar K., Narayanasamy P., Selvakumar N., Narayanasamy R.	Materials and Design	2012	72	National Engineering College	72
Single basin double slope solar still with minimum basin depth and energy storing materials	Murugavel K.K., Sivakumar S., Ahamed J.R., Chockalingam Kn.K.S.K., Srithar K.	Applied Energy	2010	109	National Engineering College	109

3.4.7 Faculty participation in Seminars/Conferences and Symposia during the year

No. of Faculty	International level	National level	State level	Local level
Attended Seminars / Workshops	38	79	--	--
Presented papers	43	11	--	--
Resource Persons	--	33	11	--

3.5 **CONSULTANCY**

3.5.1 Revenue generated from Consultancy during the year

Name of the Consultant (s) department	Name of Consultancy project	Consulting / Sponsoring Agency	Revenue generated (amount in Rs)
Mechanical Engineering	Solution for Design issues in the dust test chamber	CM Envirosystems Pvt Ltd., Bangalore	Rs.2,50,000/-
	Hot air seiling methodologies for woven sack	Veubro polymers, Erode	Rs.25,000/-
CSE	Services in the area of Intelligence	TATA Power Strategic Engineering Division	Rs. 3,60,000/-
EEE	Excel Hydro Pneumatics (India), Nanguneri, Tirunelveli	Electrical withstand test and megger	Rs. 3,500/-
Civil Engineering	Ramco Cements Ltd & Air voice Telesystems and Infrastructure Private Limited	To determine Soil bearing capacity, Compressive Strength Test-Concrete cube	Rs. 27,000/-

3.5.2 Revenue generated from Corporate Training by the institution during the year

Name of the Consultant(s) & Department	Title of the Programme	Agency seeking training	Revenue generated (amount in rupees)	Number of trainees
--	--	--	--	--

3.6 **Extension Activities**

3.6.1	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 **co-ordinated** in such activities	Number of students participated in such activities
NSS Special Camp	NSS	2	100
Eye Medical Camp at Aravind Eye Hospital, Tirunelveli	NSS	2	65
CATC camp @ Sankar Polytechnic, Sankar Nagar	NCC	2	54
Thalsainik Camp @ Mannar Thirumalai Naicker College, Madurai	NCC	2	8
BLC Camp @ Periyar Maniammai Universtity, Thanjavur	NCC	2	4
IUC-RDC Camp @ NTA, Idayappatti, Madurai	NCC	2	3
AAC @ 4 ENGRS REGMT, Secunderabad	NCC	2	4
RDC TRG-I CAMP @ James College of Engg, Nagercoil	NCC	2	2
Swachh Bharath Awareness @ NEC & KPT Village	NCC	2	51
Indhradhanush Awareness Program @ Ettayapuram	NCC	2	51
RDC GP TRG-II CAMP @ NTA, Idayappati, Madurai	NCC	2	2
RDC GP Launch Camp @ NTA, Idayappati, Madurai	NCC	2	2
RDC GP IGC Camp @ Bannari Amman College	NCC	2	2
SSB Screening Capsule – OTA, Nagpur	NCC	2	1
Medical Awareness Camp @ Kovilpatti	NCC	2	30
NIC-II @ SILCHAR	NCC	2	6
RDC TRG-II Camp @ New Delhi	NCC	2	1
RDC Training Camp @ New Delhi	NCC	2	1
Trekking Camp @ Belgaum	NCC	2	3

Youth Day Celbration - Outdoor Skill Practice Camp @ Manimuthar	NCC	2	61
Weapon Training Practice @ Sankar Polytechnic College, Sankar Nagar	NCC	2	51
NCC B-Certificate Exam @ Rani Anna College, Tirunelveli	NCC	2	51
NCC C-Certificate Exam @ St.John's College, Tirunelveli	NCC	2	21
NCC Cycle Rally – "Clean India & Water Conservation" – 150 Kms	NCC	2	31

3.6.2 Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the Activity	Award/recognition	Awarding bodies	No. of Students benefited
--	--	--	--

3.6.3 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 co-ordinated such activities	Number of students participated in such activities
Swachh Bharat	NSS Club, National Engineering College, Kovilpatti	Cleaning work in Temple, School, Play ground premises of Villiseri village	2	100

3.7 **Collaborations**

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

Nature of Activity	Participant	Source of financial support	Duration
Paper Publications	10	__	1 Year

3.7.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year (Industry – Institute Interaction)

Nature of linkage	Title of the linkage	Name of the partnering Institution / industry / research lab with contact details	Duration (From-To)	Participant
Incubation Center	CDIO	Apex Design Centre, Coimbatore	5 Years	28
Internship cum Placement	MOU	AJ & J Tech Solutions Pvt., Ltd, Bangalore	5 Years	04

		Internship, on-the-job training, project work	Bizplus Product Development Lab	Bizplus Services, Chennai	5 Years	9
		Internship cum Placement	MOU	Recodem Software Solutions, Chennai	5 years	4

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

Organisation	Date of MoU signed	Purpose and Activities	Number of students/teachers participated under MoUs
M/s. Bizplus Services, Chennai, Taminadu	04.12.2016	To provide training to incubates and to support R&D activities in the area of cloud, IoT and artificial intelligence	9
M/s. River silica, Bangalore	17.08.2015	To have collaboration with academic, research and incubation related activities in the area of signal and image processing	--
M/s. BS Tecknology Pvt. Ltd., Madurai, Tamilnadu	07.09.2017	To create entrepreneurs and to develop innovative solutions through web development and software development	--
M/s. Axis Global Institute of Industrial Training, Coimbatore, Tamil Nadu		To train the students and the faculties in PLC and SCADA through industrial internship and inplant training	--
M/s. Mitrah Soft Software Solutions, Kovilpatti, Tamilnadu	01.08.2017	To support startups on software development in the area of web services and web technology	--
Recodem Software Solutions, Chennai	21.02.2018	Internship cum Placement	05
AJ & J Tech Solutions Pvt., Ltd, Bangalore	November, 2019	Internship cum Placement	04
JiJi Technologies Pvt. Ltd, Tirunelveli	04.09.2017	Academic Interaction and collaboration	--

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
Rs. 260 Lakhs	Rs. 213 Lakhs

4.1.2	Details of augmentation in infrastructure facilities during the year

Facilities	Existing	Newly added
Campus area	493950 sq.mt.	-
Class rooms	97 (6324.28 sq.mt.)	4 (311.649 sq.mt)
Laboratories	67 (10729.74) sq.mt.	2 (301.34 sq.mt)
Seminar Halls	6 (1171.03 sq.mt.)	1 (186.9 sq.mt)
Classrooms with LCD facilities	6 (659.94 sq. mt.)	-
Classrooms with Wi-Fi/ LAN	All class rooms	-
Seminar halls with ICT facilities	6	-
Video Centre	8	-
No. of important equipments purchased (≥ 1- 0 lakh) during the Current year.	209	12
Value of the equipment purchased during the year (Rs. in Lakhs)	-	Rs.58,98,183
Others		

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 partially)	Version	Year of automation
InsproPlus	Fully	6.1	2013

Library Services

		Existing		Newly Added		Total	
		No.	Value	No.	Value	No.	Value
Books	Text Books	57,397	1,75,59,083.75	1703	8,21,677.00	59100	1,83,80,760.75
	Reference Books	1038	-	29	-	1067	-
e-Books		875	-	-	-	875	-
Journals		194	6,89,598.50	125	3,73,473.00	125	3,73,473.00
e-Journals	IEEE	145	5,41,167.00	152	5,45,433.00	152	5,45,433.00
	Science Direct	275	6,82,854.00	275	6,92,412.00	275	6,92,412.00
	ASME	30	2,31,061.00	30	2,28,483.00	30	2,28,483.00
	DELNET	-	11,500.00	-	13,570.00	-	13,570.00
Digital Database	Question Bank	Since 2012					
CD & Video	NPTEL Video	4 TB	-	-	-	14	-

							TB	
	Spoken Tutorial CDs	6 nos.	-	-	-	6 nos.	-	
	Text Book CDs	3147		263		3410		
Others (specify)	DELNET Since 2009 (Inter Library Loan & Document Delivery Services)							
	FOSS Courses through Spoken Tutorials, IIT Bombay							

4.2.2	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
-	-	-	-

4.3	**IT Infrastructure**

4.3.1	Technology Upgradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	1544	1163	320 Mbps	83	139	45	68	46
Added	59	59		--	--	--	--	--
Total	**1603**	**1222**		**83**	**139**	**45**	**68**	**46**

4.3.2	Bandwidth available of internet connection in the Institution (Leased line) 320 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
ERP	http://erp.nec.edu.in/erp/
Feedback for Teaching - Learning	172.16.11.11/feedback
R & D portal	172.16.11.11/rd
Faculty Recruitment	172.16.11.11/NEC
Faculty Appraisal	172.16.11.11/FPAS
NECAMS	http://nec.edu.in/college_automation/index.php
Grievances	172.16.11.11/grievance
Choice Based Credit System (CBCS)	172.16.11.11/cbcs

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 incurred on maintenance of physical facilities
Building			1,80,00,000	23,42,381
Equipment	1,50,00,000	2,41,24,533	-	-
Books	10,00,000	8,26,450	-	-
Journals including E-journals	25,00,000	19,06,973	-	-
Research & Development	-	19,20,381	-	-
Building Maintenance	-	-	80,00,000	89,71,289
Other Maintenance	-	-	10,00,000	18,82,976
Bus Maintenance	1,20,00,000	1,49,35,238	-	-
Internet	25,00,000	24,53,773	-	-
Software Expenses	15,00,000	12,83,741	-	-
Sports & Games	12,00,000	17,65,693	-	-
Professional Society membership	2,50,000	7,67,828		
Staff Development Expenses	10,00,000	22,47,573	-	-
Student Project Expenses	1,00,000	1,55,957		
Seminar Expenses	12,00,000	12,10,239		
Special course Expenses	8,00,000	6,24,547		
BEC Course Expenses	5,50,000	4,99,375		
Scholarship expenses	3,00,000	2,19,112		
Lab Maintenance	40,00,000	52,41,886		
TOTAL	**4,39,00,000**	**6,01,83,299**	**2,70,00,000**	**1,31,96,646**

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)

Physical facilities

The comprehensive infrastructure of the College is constituted by elementary features like buildings, classrooms and playgrounds, Administrative office, Auditorium, and advanced attributes like ICT-enabled classrooms and laboratory facilities. The physical facilities are made available for the students those who are admitted in the college. Sometimes it is also made available for the other governmental and the non-governmental organizations for conducting the exams and training based on the availability. The

maintenance and the cleaning of all the blocks including classrooms, laboratories and garden are done with the efforts of the non-teaching staff appointed for the above said purpose. A separate wing headed by a Maintenance engineer will supervise the work.

The college has adequate number of the computers with internet connections and UPS support and the utility software's distributed in different locales like office, laboratories, library, departments etc. All the stakeholders have equal opportunity to use those facilities as per the rules and the policies of the institution. The college also provides uninterrupted power supply throughout the campus. The maintenance of UPS and the Generator is regularly done by separate wing headed by Senior Engineer

Academic and Support Facilities

The academic support facilities like library, the sports and the other platforms supporting overall development of the students like NSS or Competitive examination cell etc. is open to the students by 24x7. Accession to library is permitted for both students and faculties by producing id proofs. A provision of the budget for the library maintenance is made by the college management.

The department of physical education has adequate infrastructure consisting of the indoor Hall, 400 meter running track and Hockey ground which can be used by student, staff and the local community. The physical education department of our Institution is facilitated by the physical director and directress to engage the students in physical activities. The cost of maintenance is done by the Management of the college. A gym has been established on behalf of the physical education department within the college premises and hostels.

Academic facilities

The Heads of the respective Departments superintend the research, PG and UG laboratories. Each of the curricular, co-curricular and extra-curricular facilities available in the Departments are maintained and managed in such a way that they are freely accessible to all the students, but strictly monitored by a member of the faculty, who is in charge of the facility. The major funds which aid in the enrichment and maintenance of infrastructural facilities are from the Management and project funds. The institution avidly insists on credibility and transparency in all transactions. As a manifestation of this ideal, a Purchase Committee is constituted to administer all the purchases made in the campus. There are ample guidelines legislated for the Committee to exercise its powers judiciously. The Principal and a Convener, nominated by the College Council, head the Committee.

The College ensures the availability of latest equipment and up-to-date infrastructure in the campus. There is a systematic procedure for the purchase as well as maintenance of these infrastructural facilities including all sorts of equipments which is as follows:

1. Submission of requirement in the form of a proposal
2. Evaluation by Purchase Committee and Maintenance Committee
3. Approval by the Principal
4. Call for quotations and verification of prices and availability of the items
5. Approval from the Management

	6. At the end of financial year stock verification is undertaken for various departments and a detailed report is compiled. Based on this policy the perspective plan for the maintenance, repair, writing off and purchase of relevant infrastructure facilities is formulated (refer web site)
	7. The College maintenance team regularly monitors and supervises the available infrastructure and ensures its upkeep, repair and other maintenance of the infrastructure.
	8. Round the clock Security of the College aids in keeping the College infrastructure secure.
	9. Fire Extinguishers have been installed at identified locations.
	10. Safe and Clean Drinking Water is ensured through ROs and Water Coolers.

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	Meritorious Scholarship	3	1,35,000
Financial support from other sources			
a) National	TamilNadu Government Scholarship	800	1,14,88,200
	Other Sources	22	1,44,000
b) International	-	-	-

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 implementation	Number of students enrolled	Agencies involved
Soft skill Development	2011	All students	College Placement Cell
BEC Course	2011	115	British Council & Ebek, Trichy
Personal Counseling	2013-14	10	Mrs.V.Vasantha Lakshmi, Personal Counsellor
Yoga	2013-14	209	Sky, Alya

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

Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counseling activities	Number of students who have passed in the competitive exam	Number of students placed
2017-18	Gate Forum & Career Guidance Cell	1493	1320	15	207

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

Transparency in Evaluation: All the end semester examination papers are shown to the students before publishing the results. Any grievances in the evaluation proposed by the students will be rectified then and there.

Total grievances received	No. of grievances redressed	Average number of days for grievance redressal
102 (Nov. 2017)	102	Within the day
87 (April 2018)	87	

5.2	**Student Progression**

5.2.1	Details of campus placement during the year

On campus			Off Campus
Name of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
42	415	207	--

5.2.2	Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2017-18	03	B.E	CSE	NEC	ME (CSE)
	05	B.E	Mechanical	TCE	MBA
	1	B.E	EEE	Australian National University, Australia	MS
	2	B.E	EEE	Anna University, Chennai	ME
	1	B.E	EEE	PSG tech, Coimbatore	MBA
	1	B.E	EEE	TCE	ME
	1	B.E	EEE	GCE, Tirunelveli	ME
	7	BE	EEE	Private Institutions	ME

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	No. of Students selected / qualifying	Registration number/roll number for the exam
NET	--	--
SET	--	--
SLET	--	--
GATE	9	--
GMAT	--	--
CAT/MAT	5	--
GRE	--	--
TOFEL	--	--
Civil Services	--	--
State Government Services	--	--
Any Other	1	--

5.2.4	Sports and cultural activities / competitions organised at the institution level during the year		
	Activity	**Level**	**Participants**
	Ball Badminton (Women)	Inter Zone	10
	Table Tennis (Women)	Inter Zone	5
	Throw Ball (Women)	State Level	12
	Badminton team (Men)	Anna University, Chennai Zone -18	6
	Basketball team (Men)	Anna University, Chennai Zone -18	12
	Chess team (Men)	Anna University, Chennai Zone -18	5
	Hockey team (Men)	Anna University, Chennai Zone -18	18

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 / International	Sports	Cultural	Student ID number	Name of the student
2017-18	-	-	-	-	-	-

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

In our college, there is no separate student's council; however students have been given enough space without gender bias to represent their views in the college decision making bodies, such as Academic Council, Board of studies and IQAC. In all the bodies' including IQAC, student representatives from each program are included. Students can directly interact with the members of the council and give their opinion. This forum also suggests the student members to interact with their fellow friends and asks them to present their grievances in a collective manner. The Individual student's views are also recorded in the minutes of the meeting. Before taking any final decision on important issues, the Principal, experts and the members from the management with the concern of the students give their approval.

Further, Students give their representation in the Class committee which includes faculty members, students with good academic and slow learners. The class committee gives full freedom and wisdom for the students to define and plan their teaching learning process including defining evaluation procedure for the continuous assessment. In addition to that students have been given full autonomy to elect members for the association, Technical Chapters and club activities such as Rotract, Red Cross and so on. Through these clubs more than 132 activities have been conducted every year to enhance various skills of the students. Students act as organizers and volunteer many programmes

In addition to all, students play important role in hostels also in the development facilities as well as day to day activities. The student committees have been formed to monitor mess, maintenance, hostel library, computer centre and recreation activities.

5.3	**Alumni Engagement**			
5.3.1	Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words): **Yes** - NEC Alumni association was started in the year 1991. - The Alumni Association was registered with Tamil Nadu society on 01.06.2006, Society Registration No: 54/2006. - Alumni Chamber is established with world class audio/video conference facility with 200 seats capacity in the campus on 03-08-14. Alumni members regularly connect and share their experiences to the Students/ Faculty through this chamber. - The association has various chapters at Chennai, Bangalore, UAE, Kuwait, Singapore and the general body meet is conducted once in a year in which all members present and discuss the activities and progress of the association. - Silver Jubilee Reunion is organized and celebrated every year (5 Batches completed). - Conducts Seminar on latest trends in industry. - Financially assisting in innovative projects. - Provides job opportunity through our Alumni.			
5.3.2	No. of registered Alumni: **7000 Nos**			

5.3.3 Alumni contribution during the year (in Rupees) : **Rs. 2,36,000/-**

Date	Alumni Name, Batch	Amount Rs.
05/02/2017	Mr.C.Venkatachalam MECH 1995	5,000
05/17/2017	Mr.Madhu Kumar CSE 1988	1,00,000
12/13/2017	Mr.Anandha Sarangam ECE 1998	21,000
02/21/2018	1999 Batch EEE Alumni Members Contribute	30,000
03/07/2018	2002 Batch Alumni Members Contribute	45,000
06/01/2018	1999 Batch EEE Alumni Members Contribute	20,000
06/06/2018	2002 Batch Alumni Members Contribute	15,000
	TOTAL	**2,36,000**

5.3.4 Meetings/activities organized by Alumni Association

S. No	Date	Branch	Batch	Event
1.	16.06.2017	CSE	1989	Interaction with IT III and Final year Students on topic Awareness Programme internship
2.	01.07.2017	EIE	2011	(2011 Batch EIE) interacted with EIE final year students at Alumni Chamber through video Conference
3.	03.07.2017	EEE	2016	Alumni interaction with final year EEE students.
4.	14.07.2017			1992 batch Reunion
5.	14.07.2017	EEE	2010	Alumni interaction with final year EEE students.
6.	17.07.2017	ECE	2006	Interacted with students on topic Overseas Education Opportunities through Video conferencing

7.	24.07.2017	ECE	2014	Interacted with students on topic Post Graduation and Job opportunities in Germany through Video conferencing
8.	07.08.2017	ECE	1989	Interacted with students on Applying learning into the constructive development for the world
9.	19.08.2017			Extra Ordinary General Body meeting
10.	21.08.2017	EIE	1998	Interacted with EIE 3 year Students
11.	23.08.2017	EIE	2013	Interacted with final year EIE & ECE students on Tessolve campus drive programme
12.	31.08.2017	EIE	2010	Interacted with EIE students on Safety Engineering Basics
13.	09.09.2017	CSE	2000	Interacted with CSE & IT students
14.	28.09.2017	EIE	2013	Interacted with EIE students
15.	09.12.2017			Alumni participated in NBA Interaction
16.	11.12.2017	MECH	1992	Interacted with CSE & IT students on Latest trend in IT industry & artificial intelligence
17.	22.12.2017	EEE	2015	Interaction with III year EEE students.
18.	30.12.2017	MCA	2000	Interacted with III year IT Students
19.	30.12.2017	CSE	2002	Review of Alumni funded projects
20.	05.01.2018	ECE	2006	Interacted with ECE students
21.	06.01.2018	ECE	2006	Interacted with MECH students
22.	08.01.2018	MECH	2002	Interacted with MECH Faculty
23.	10.01.2018	CSE	1990	Interacted with IT CSE Students on Latest Trend IT
24.	11.01.2018	MECH	2002	Interacted with MECH students Latest trend of mechanical engineering in global level and placement opportunity in global level
25.	24.01.2018	CSE	1988	Interacted with IT II & III year Students
26.	10.02.2018	EIE	2006	Interacted with Mech and EIE final year students towards getting placement in Emerson through Video conferencing
27.	17.02.2018	Mech	2002	First review on alumni fund project at Alumni Chamber through Video conferencing
28.	23.02.2018			Alumni induction programme for final year UG/PG student at Alumni Chamber
29.	06.03.2018	ECE	2005	Interaction with students on topic Higher Studies in Abroad at Alumni Chamber thru Video conferencing
30.	09.03.2018	Mech	2002	Interaction with students on topic Higher Studies in Abroad at Alumni Chamber thru Video conferencing
31.	23.03.2018			Kuwait Chapter 3rd get together
32.	26.04.2018	MECH	1994	Interaction with III Mech and I year students
33.	30.04.2014	CSE	2002	Review of alumni Best project
34.	07.05.2018	CSE	1999	Interaction with III year students

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)	
	Empowering faculty-centered practices: Heads of the departments are empowered to prepare budget for their department with the consultation of senior faculty and lab in-charges.	
	Further to guide the HODs, a departmental level committee has been constituted to review the requirement of purchasing of equipments for laboratories, Research and for regular maintenance activities.	
	Faculty members are given authority in various committees/cells and allowed to conduct various programs. They are encouraged to develop leadership skills by being in charge of various academic, co-curricular, and extracurricular activities. They are given full rights to conduct industrial tours relevant to their courses and to have tie-up with industrial experts and appointed as coordinator and convener for organizing seminars/workshops/conferences/FDPs.	
	Faculty members are given authority to do their Research works in their area of interest; in addition to that, it is also given rights to set up Research centers with the support of Research funding or the management funding.	
	Empowering students-centered practices: Through Choice Based Credit System, Students are given freedom to choose the elective courses as well the faculty members for any course. Students can have freedom to transfer credits earned through online courses like NPTEL, Coursera, etc., Further, they have been provided with adequate support to choose their career as Entrepreneur / Higher studies / placement / preparing for competitive examinations.	
	Students have been given enough representation in the highest decision making bodies like Academic council, Internal Quality Assurance Cell and Board of Studies.	
	Students are also empowered to play an active role as a coordinator of co-curricular and extra-curricular activities, social service group coordinator.	
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**)**	
	Curriculum Development	i. Efforts have been taken to develop new curriculum for Regulation 2019 by giving special importance for Artificial Intelligence, basic courses and science courses. ii. The entire curriculum for Regulation 2019 has been planned with comprising 65% of theory courses and 35% of the practical courses.
	Teaching and Learning	i. Product development laboratories are introduced in every department.

		ii.	Live demos and animations are included in teaching process.
		iii.	Google class room teaching has been insisted to adapt for all the courses.
		iv.	Online courses like NPTEL, Coursera etc., are insisted to do by all the faculty members every year.
	Examination and Evaluation	i.	Evaluation of marks encompasses internal marks through continuous assessment and external marks scored in End Semester Examination.
		ii.	Automation of the examination cell to ensure timely declaration of results to keep the academic calendar on schedule.
		iii.	Dummy number system has been followed in Semester exam valuation to keep the honesty in valuation.
	Research and Development	i.	Every program has separate research centre approved by Anna University except Civil Engineering.
		ii.	Incentives for research publications and research projects are provided
		iii.	To promote R & D activities, progress review is conducted for faculty members having Ph.D degree and research scholars
	Library, ICT and Physical Infrastructure / Instrumentation	i.	In the academic year 2017-18, Central library is added with a. *1703 books are newly added that worth Rs. 8,21,677/-.* b. *125 Journals subscriptions that worth Rs. 3,73,473/-* c. *E-Journals to the worth of Rs. 14,79,898/-*
		ii.	Every department has individual smart class room that worth Rs. 2 Lakh
		iii.	Books exhibition is arranged every year thro' vendors at campus to identify the quality books
		iv.	Special books have been exclusively purchased for Entrepreneurship Development of worth nearer to Rs. 1 lakh.
		v.	Central library and department libraries are equipped with Air-conditioner
		vi.	Every department has individual air-conditioned seminar hall with LCD projector, smart TV and computer system with internet connection.
	Human Resource Management	i.	Recruitment of faculty and staff are based on the guidelines provided by Anna University and AICTE, New Delhi.
		ii.	There are many staff welfare schemes namely EPF, Group insurance and Accidental policy
		iii.	Sponsorship of Higher Studies for Faculties
		iv.	Organizing Developmental training programme and workshops/seminars for enhancing the multi-skills of faculties.
		v.	Effective appraisal system has been followed to assess the performance of faculties.
		vi.	Faculty members are promoted to higher positions based on their experience, skills and achievements.

	Industry Interaction / Collaboration	The Institute has collaboration with the following industries of repute at both national and International level, ▪ Apex Design Centre, Coimbatore ▪ CM Enviro systems, Bangalore. ▪ SumTwo Software Private Limited, Madurai
	Admission of Students	The students are admitted according to the Anna University / Tamil Nadu Government/ AICTE Norms.

6.2.2	Implementation of e-governance in areas of operations

Planning and Development	▪ HR Management ▪ Online faculty recruitment process
Administration	▪ Academic Management ▪ Hostel Management ▪ Performance reports, Access reports, online Entries and Enquiries ▪ Online leave apply and approval
Finance and Accounts	▪ Finance Management
Student Admission and Support	▪ Central Library Management ▪ Student Management ▪ Automatic SMS for absentee, e-circular notifications ▪ Online web portal for staff and students
Examination	▪ COE Administration ▪ Certificate Issue

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 Rs.)
05.02.2018 to 09.02.2018	Dr.D.Ravindran, F.Michael Thomas rex and P.Harihara sakthi sudhan	Innovative Digital tools enabled product design	GIAN Course, IIT, Madras	18335
19.02.2018 to 24.02.2018	Dr.D.Venkat kumar, Dr.M.Kathiresan, Dr.R.Hari chandran	Smart Manufacturing	GIAN Course, NIT, Jalandhar	7270
12.03.2018 to 17.03.2018	Dr.H.Kanagasaba pathy	FDP	GIAN course, Allahabad	14547
26.12.2017 to 02.01.2018	Mr.K.J.Prasanna Venkatesan	Vogue Technologies On 5g And 5g+ Communication And Vehicular Technology	GIAN Workshop NIT, Trichy	

	26.03.2018 to 30.03.2018	Dr.A.Shenbagavalli	Five days GIAN course on "Advanced Pattern Recognition Techniques"	GIAN Course MNIT, Jaipur	16050
	25.12.2017 to 29.12.2017	Ms.S.Karthika	Advances In Cmos Clock Generation Circuits	GIAN COURSE NIT, WARANGAL	
	05.03.2018 to 09.03.2018	Dr.V.Gomathi	Programming GPUs & Accelerators: A Principled Quantitative Approach	GIAN course IIT Hyderabad, Telangana	16901
	10.12.2017 to 14.12.2017	Dr.K.Mohaideen Pitchai & Mr.S.Dheenathayalan	Algorithmic Foundations of Wireless Sensor Networks with Applications	GIAN course Department of MACS and Department of CSE, NIT, Surathkal.	18432
	26.03.2018 to 30.03.2018	Ms.M.Bhuvaneswari , Ms.V.Jyothir Bindhu & Ms.M.Jayalakshmi	Five Days GIAN Course on "Introduction to Software defined networks"	National Institute of Technology Karnataka, Surathkal	22095
	05.03.2018 to 09.03.2018	Ms.R.Rajakumari & Ms.G.R.Hemalakshmi	Five days GIAN Course on "Advanced Pattern Recognition Techniques for Biometrics"	IIT, Indore, MP	30690
	26.03.2018 to 30.03.2018	Ms. V.Vimala	Five days GIAN course on "Advanced Pattern Recognition Techniques"	Malaviya National Institute of Technology Jaipur, Department of CSE	16050
	26.03.2018 to 30.03.2018	Ms.G.Sivakama Sundari	Five days GIAN course on "Advanced Pattern Recognition Techniques"	Malaviya National Institute of Technology Jaipur, Department of CSE	16050
	16.11.2017 to 20.11.2017	Ms.S.Kalaiselvi	Remote Sensing Image Processing and Analysis	GIAN Course NIT, Surathkal	9120
	29.01.2018 to 02.02.2018	Mr. R.Muniraj & Dr.S.Kanagalakshmi	"Model Predictive Control: Theory and Applications"	GIAN course IIT, Madras	-
	12.02.2018 to 16.02.2018	Mr.S.Sankarakumar	Multi-phase drive and generation systems for advanced industrial applications	GIAN course VNIT, Nagpur	12435
	05.02.2018 to 09.02.2018	Dr.D.Santhi & Mrs.J.Babitha Thangamalar	Innovative Digital Tools Enabled Product Design	GIAN Course IIT Madras	10000
	26.03.2018 to 30.03.2018	Dr.D.Manimegalai	Advanced Pattern Reorganization Techniques	Gian Course MNIT Jaipur	16050
	08.01.2018 to 12.01.2018	Mr.L.Jerart Julus	Fundamentals of Optical Wireless Communications	GIAN course NIT, Nagpur	14200
	16.11.2017 to 20.11.2017	Ms.V.Anitha	Remote Sensing Image Processing and Analysis	GIAN Course NIT, Surathkal	9120

		08.01.2018 to 12.01.2018	Dr. S.Thalamuthu	Gian Programme Inorganic Chemistry of imaging: Magnetic resonance and optical imaging coordination complex	Discipline of Chemistry, Indian Institute of Technology, Indore	5810
					TOTAL AMOUNT	**2,53,155.00**

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

Dates	Programme	Title	Experts	Participants	Nos.
22.05.2017 to 26.05.2017	Training programs	Instructional Design and Delivery Systems	NITTTRC, Taramani.	APs less than five years of experience	75
23.05.2017 to 25.05.2017	Workshop	Defining short term Goals for departments, set targets for next academic year and planning strategy to achieve the targets and goals	FDS_NEC	HODs and Senior faculties of all the departments	62
26.05.2017	Meeting	Augmenting Engineering Education in the region	PALS, PAN IIT Alumni Leadership Series, Chennai	All HODs and Deans	10
27.05.2017 to 29.05.2017	Training program	Technology Enabled Learning	NITTTRC, Taramani.	Senior faculties except HODs	91
28.05.2017 to 30.05.2017	Training program	Technology Enabled Learning	NITTTRC, Taramani.	APs less than five years of experience	103
01.06.2017	Workshop	OBE and its implementation in NEC – A review and resetting the process	FDS_NEC	50% of the staff members except (2)	73
02.06.2017	Workshop	OBE and its implementation in NEC – A review and resetting the process	FDS_NEC	Remaining 50% of the staff members except (2)	75
03.06.2017	Process	NEC Benchmark	FDS_NEC	-	-
16.06.2017	Discussion	Strategic planning to achieve the short term goals of all departments	FDS_NEC	HODs	8
17.06.2017	Workshop	Technical demo session for new toolboxes of MATLAB	Enthu Technology Solutions India Pvt Ltd, Coimbatore	Staff from EEE, ECE, E&I, Mech, CSE, IT, Maths &Physics	30
27.06.2017	Process	Submission – NEC Benchmark Consolidated Report	FDS_NEC	-	-
07.07.2017	Data Collection	List of experts from IITs, NITs or any other reputed institutions	FDS_NEC	-	-
19.08.2017	Workshop	Blooms taxonomy for teaching learning process	FDS_NEC	Assistant professors	127

	24.08.2017	Process	Submission of Appraisal Forms – Version I	FDS_NEC	-	-
	14.09.2017 to 25.09.2017	Review	Mid semester competency	FDS_NEC	Assistant professors	127
	28.09.2017	Review Meeting	Technology enabled teaching-learning process	FDS_NEC	AP(SG) Asso. Profs.	64
	26.10.2017	Workshop	Application of Bloom's taxonomy for TLP	Dr.S.Baskar TCE, Madurai	Senior faculty members	40
	11.11.2017	Workshop	Application of Bloom's taxonomy for TLP	Dr.S.Baskar TCE, Madurai	AP(SG) Asso. Profs.	64
	18.11.2017	Workshop	Application of Bloom's taxonomy for TLP	Dr.S.J.Thiruvengadam TCE, Madurai	Assistant professors	127
	29.12.2017 to 31.12.2017	In house Training Programme	Leadership Qualities Enhancement and Management Development programme	Mr.Natesan, Consultant, Lead Training Solutions, Chennai	Senior faculty members	41

Non-Teaching Faculty:

- "Re-Engineering of attitude, skills and knowledge" : HR Training – 23.09.2017

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

S. No.	Title of the professional development programme	Number of teachers who attended	Date and Duration (from – to)
1.	FDP on Outcome Based Teaching Learning at IIT, Madras	4	01.11.2017 to 03.11.2017
2.	FDP on Empowering Teachers in Life Skills Education at NIT, Trichy	1	06.11.2017 to 10.11.2017
3.	FDP on Stability Design of Steel Buildings at IIT Madras	3	06.11.2017 to 10.11.2017
4.	FDP on Entrepreneurship at NEC	7	04.12.2017 to 16.12.2017
5.	FDP on Data Science Research And Big Data Analysis at NEC	2	11.12.2017 to 23.12.2017
6.	FDP on Quality Improvement Programme on "Nonlinear Adaptive Control Design", IISC, Bangalore	1	12.06.2017 to 16.06.2017
7.	FDP on Quality improvement Programme on "Technology Enabled Teaching Learning Process" conducted by NITTTR, Chennai at NEC	9	27.05.2017 to 29.05.2017
8.	FDP on "Energy and power quality audit methodologies" at TCE, Madurai	1	27.11.2017 to 10.12.2017
9.	FDP on "Recent trends and Applications of High Voltage Engineering" at NEC	7	06.11.2017 to 19.11.2017
10.	FDP on Sensor Interfacing for IoT at TCE, Madurai	3	05.03.2018 to 11.03.2018

	11.	Digital Signal Processing and applications (AICTE Sponsored) at IISC, Bangalore	1	04.09.2017 to 08.09.2017
	12.	FDP on Mems based sensors: Fabrication and characterization at IISC, Bangalore	3	12.02.2018 to 16.02.2018
	13.	HDL for Signal, Image and Video Processing (HSIVP 2017) (AICTE Sponsored) at IIT Varanasi	1	21.08.2017 to 26.08.2017
	14.	FDP on Environmental Impact Assessment at NITTR, Chennai	1	27.11.2017 to 01.12.2017
	15.	STTP on Geo Synthesis as Modern Construction Materials at IIT Madras	3	05.02.2018 to 10.02.2018
	16.	FDP course on Advanced Pattern Reorganization Techniques at NEC	1	13.06.2017 to 17.06.2017
	17.	AICTE Sponsored- FDP on Data Science Research And Big Data Analytics at NEC	5	11.12.2017 to 23.12.2017
	18.	FDP on "Foundation Program 4.1 at SIT, Kariapatti	3	06.11.2017 to 10.11.2017
	19.	FDP on Deep learning – Academic and Research perspectives at PSG Tech, Coimbatore	3	24.01.2017 to 25.01.2017
	20.	FDP on research based statistical, analytical and data modeling tools at TCE, Madurai	1	26.04.2018 to 28.04.2018

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

Teaching		Non-teaching	
Permanent	Fulltime	Permanent	Fulltime
34	34	20	20

6.3.5   Welfare schemes for

Teaching	• Transport facilities
Non teaching	• Staff Quarters
	• Medical and Maternity Leave
	• EPF
	• Mediclaim policy &
	• Group gratuity
Students	• Scholarships like SC/ST, first graduate etc.,
	• Medical Insurance Policy for students and parents.
	• Prof.S.Kannappan Memorial Scholarship for academically excellent and poor student.
	• Alumni scholarship for poor student
	• Alumni award for best project

6.4	**Financial Management and Resource Mobilization**
6.4.1	Institution conducts internal and external financial audits regularly (within 100 words each) A financial committee has been constituted once in two years to allocate funds for various activities and it was placed before the Governing council for getting approval. At the end of the financial year, the overall account details are audited by a charted audited accountant.
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 / Grants received in Rs.	Purpose
Alumni Fund	2,36,000	Students' best Project award, Students' Scholarship
Prof. Kannappan Memorial Award	1,35,000	Academically strong and economically poor students' scholarship for 3 years
Research fund	20,00,000	Fund allotted from the institution for research

6.4.3	Total corpus fund generated
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	No	--	Yes	Faculty Development Section
Administrative	yes	--	No	--

6.5.2	Activities and support from the Parent – Teacher Association (at least three) ▪ General Body Meeting of Parent Teachers Association was held on 23.07.17 at 11.30 am ▪ General Body Meeting of Parent Teachers Association was held on 18.02.18 at 11.30 am ▪ Executive committee members meetings was held on 23.07.17 & 18.02.08 at 10 am ▪ Parents are informed about CBCS, OBE, Gate coaching and Aptitude training etc.,
6.5.3	Development programmes for support staff ▪ "Re-Engineering of attitude, skills and knowledge" : HR Training – 23.09.2017
6.5.4	Post Accreditation initiative(s) (mention at least three) ▪ Procedure for Credit Transfer is defined ▪ Student Leadership development programme is organized to enhance the employment skills ▪ Procedure has been defined to identify slow learners ▪ Entrepreneurship activities are motivated for self employment.

6.5.5	a. Submission of Data for AISHE portal	: **No**	
	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 |

Name of quality initiative by IQAC	Date of conducting activity	Number of participants
12th IQAC Meeting	15.07.2017	24
13th IQAC Meeting	20.01.2018	25
Academic Administrative Audit (AAA)	07.06.2017-16.06.2017	207
	03.03.2018-13.03.2018	207
Participation in NIRF	17.01.2018	---
NBA visit	08.12.2017	ECE
	25.03.2017	CSE,EEE
Academic Quality Audit	19.08.2017	Mech, ECE, EEE, EIE, CSE, IT & Civil
	26.08.2017	S&H

Note: Some Quality Assurance initiatives of the institution are: (Indicative list)
- *Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback from all stakeholders collected, analysed and used for improvements*
- *Academic Administrative Audit (AAA) conducted and its follow up action*
- *Participation in NIRF*
- *NBA.*
- *Academic Quality Audit, etc*

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-to)	Participants	
		Female	Male
--	--	--	--

7.1.2	Environmental Consciousness and Sustainability/Alternate Energy initiatives such as: Percentage of power requirement of the College met by the renewable energy sources:
	About 5% of power utilization through Solar Energy

| 7.1.3 | Differently abled (Divyangjan) friendliness |

Items Facilities	Yes / No	No. of Beneficiaries
Physical facilities	No	--
Provision for lift	No	--

Ramp/ Rails	Yes	--
Braille Software/facilities	Yes (Under development)	--
Rest Rooms	No	--

Scribes for examination	Yes (Provision is available)	--
Special skill development for differently abled students	No	--
Any other similar facility	No	--

7.1.4	Inclusion and Situatedness

Enlist most important initiatives taken to address locational advantages and disadvantages during the year

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
2017-18	1	1	January to April 2018	Business Incubator Cell	For Economic Development	10
2017-18	1	1	May-June 2018	Live-In lab	For the welfare of rural people (for village adoption scheme)	25
2017-18	1	1	June'17 – April'18	NewGen IEDC	For development of products	40

7.1.5	Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of Publication	Follow up (maximum 100 words each)
NEC Bulletin	05.06.2017	Students are generally following the code of conduct correctly and if any misconduct, students are advised through the mentor. If any violation, discipline committee do the enquiry and necessary actions will be taken.

7.1.6	Activities conducted for promotion of universal Values and Ethics

Activity	Duration (from-------to-------)	Number of participants
-	-	-

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

- Campus landscape has been carried out for the worth of Rs. 60 lakhs.
- Awareness on "SAVE ECO-SYSTEM" was street played on 27th of July 2017.
- An awareness program on water conservation in men's hostel-2 was conducted by the eco club volunteers on 3rd January of 2018.

- An awareness program on water conservation was conducted in ladies hostel on 27th February 2018.
- "Campus Clean Day" has been celebrated on 18th September 2017 and an awareness mime was displayed.
- ECO-FEST was conducted from 01st – 03rd February 2018. On February 1st a mime was displayed on the topic "save nature". On February 2nd a puppet show was displayed to create awareness on the spread of dengue.

7.2	**Best Practices**	

- Implementation of Outcome Based Education and Choice Based Credit System for International recognition of students and job opportunities
- Implementation of Relative Grading System in End Semester examinations.

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

Link: http://nec.edu.in/academic/UG%20R-2015%20(amended%209th%20meet).pdf

The Curriculum and Syllabi under Regulations 2015 is designed keeping in mind the Outcome Based Education (OBE) and Choice Based Credit System (CBCS). The course content of each course shall be fixed in accordance with the Program Educational Objectives (PEOs), Program Outcomes (POs) and Course Outcomes (COs). The CBCS enables the students to earn credits across programmes and provides flexibility for slow and fast learners in registering the required number of credits in a semester. The CBCS facilitates transfer of credits earned in different departments / Centers of other recognized / accredited universities or institutions of higher education in India and abroad either by studying directly or by online method.

In relative grading system, all assessments of a course will be done on absolute mark basis. Each student based on his/her performance will be awarded a final letter grade and grade point, based on the performance of the student relative to others who have registered for that particular course if the class strength is greater than or equal to 30. However, if the class strength is less than 30, then the grading system shown in Table-13 of clause 15.1 (ii) of Regulation 2015, will be followed. The letter grade and the grade point to each student studying theory / integrated courses (Internal and End semester examinations) are generally awarded based on the statistical parameters, Mean (μ) and Standard Deviation (σ) of the distribution of marks.

7.3	Institutional Distinctiveness	

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

Product Development and Entrepreneurship is one of the distinctive characteristic programs in our Institution. As a part of vision and mission of our college to produce industry-ready students, we have introduced **Product Development and Entrepreneurship** activity as a part of curriculum. A systematic

plan has been formulated for the implementation of this program. Further, to build these traits, the following courses have been included in the curriculum.

1. *Product Development Laboratory*: This course is designed for students to identify, design and fabricate a product which is more useful to the rural society

2. *Live - in-Lab*: This course is designed to support rural societies under the Scheme of swatchh Bharath. The batch of 5 to 6 students can go to a village adopted by the Institution and stay there for few days and they can interact with the village people. After that they have to identify a problem and then the solution to the problem may be given as report. Based on the nature of the work proper credit can be claimed by the students from the institution form the Institution

3. *Product Design and Development* : This course is designed to inculate product development skill for the students

4. *Critical and Creative Thinking Course*: This non credit course is designed both for the students and faculty. This Course will provide skill and knowledge to the students and faculty to motivate them to develop a product.

Further, to motivate the students community, the college has taken the following initiatives:

1. Established the entrepreneurship development cell (EDC) in the Year 2013.

2. The college has been approved as Business Incubator/Host institution by MSME, New Delhi during 2015. Through this forum, our college is currently supporting five alumni to develop five products to the worth of 29.39 Lakhs.

3. The college has been approved as NEWGEN IDEC, Supported by NSTEDB and DST, Government of India, New Delhi. Through this scheme, college can support students to develop 85 projects to the worth of Rs. 2.5 Lakhs each over a period of five years.

4. Funding of Innovative projects through Alumni association and presenting innovative project awards through alumni association

5. Established CDIO laboratory to develop products

6. Steps have been taken to establish product development laboratory in each department with the support of Institution.

In addition to that, the college has signed MOU with the following alumni entrepreneurs to establish incubation centers for Product development at the campus

1. M/s Apex Design, Coimbatore

2. M/s Bizplus services, Chennai

3. M/s. River silica, Bangalore

4. M/s Sum TWO software Pvt Ltd, Madurai

Outcome:

1. The institution has developed more than 10-15 products with financial support from various Government funding Agencies

2. Two of our students (**Mr. Veera Shanthi Ram.M** Final Year EIE – **Coconut Grading Machine**

and **Mr. Muthu Mariappan**.K CSE/ Alumni-**Castalk**) participated in the **Falling Walls Lab India 2018** on 7th April 2018 organized by Jadavpur University Kolkata and the DAAD - German Academic Exchange Service and DWIH - German House for Research and Innovation New Delhi.

3. Veera Shanthi Ram M was adjudged the winner of the Lab. He will represent India to compete with Falling Walls Lab winners from across the world at the global Lab finale that takes place in Berlin on 8th November 2018, and also got a ticket to the prestigious Falling walls conference on 9th November 2018 where leaders from science, Industry and policy –making meet. The trip to Berlin was financed by the DWIH, New Delhi.

8. Future Plans of action for next academic year (500 words)

S. No.	Parameters	Action plan
1.	Students' performance	1. More than 75 % of the students should be placed with medium salary of 4 lakhs per annum 2. More than 20 % of the students should get eligible scores in competitive examinations like GATE, Tofel, CAT, MAT, etc., 3. More than 3 % of the students should be motivated / trained to become an entrepreneur.
2.	Research & Development	1. Each department should have ongoing R&D projects worth > 15 lakhs. 2. Each department should have ongoing industrial consultancy work worth Rs. 3 lakhs. 3. Faculties should be motivated to publish the research articles in high impact factor journals. 4. All the faculty members should be encouraged to participate / present articles in international conferences / workshops / FDPs organized by other leading institutions. 5. Each department should organize Conference / workshops / FDP in every academic year.
3.	Institute – Industry interaction	1. Every department should sign MoU with minimum 2 companies per year. 2. More number of students should be encouraged to undergo in-plant training / internship program / industrial projects 3. Every department has to develop at least one product every year. 4. Every year, it is proposed to initiate a start up through our alumni and faculty.

Name: _Dr.K.Manisekar_

_____
Signature of the coordinator, IQAC

Name: **_Dr.S.Shanmugavel_**

_____
Signature of the chairperson, IQAC

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<div align="right">**Annexure I**</div>

Abbreviations:

CAS	-	Career Advancement Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential Excellence

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