

# **Dr. N.G.P. Institute of Technology Coimbatore – 641 048**

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai Accredited by NAAC & Recognized by UGC

# **Annual Quality Assurance Report**

(AQAR)

2016 - 2017

Dr. N.G.P. Kalapatti Road, Coimbatore – 641048. Tamil Nadu, India

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Web: www.drngpit.ac.in

#### Part - A

AQAR for the Year: 2016 - 2017

I. Details of the Institution

1.1 *Name of the Institution* : Dr. N.G.P. Institute of Technology

1.2 Address Line 1 : Dr. N.G.P. Kalapatti Road

City/Town : Coimbatore

State : Tamil Nadu

**Pin Code** : 641 048

Institution e-mail address : info@drngpit.ac.in

**Contact Nos.** : 0422 2369104

0422 2369102

*Name of the Head of the Institution*: Dr. K. Porkumaran

*Tel. No. with STD Code* : 0422 2369102

*Mobile* : +91 9894101804

*Name of the IQAC Co-ordinator* : Dr. F.Mary Magdalene Jane

*Mobile* : +91 9843075111

IQAC e-mail address : iqac@drngpit.ac.in

1.3 NAAC Track ID : TNCOGN19836

1.4 NAAC Executive Committee

**No. & Date** : EC(SC)/05/A&A/007 dated 03-03-2015

1.5 Website address : www.drngpit.ac.in

Web-link of the AQAR : www.drngpit.ac.in/aqar2016-17.pdf

#### 1.6 Accreditation Details

Sl. No	. Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	I	В	2. 81	2015	Upto 2 <sup>nd</sup> March 2020

1.7 Date of Establishment of IQAC : 14/03/2014

# 1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC:

\*AQAR submitted to NAAC on 12<sup>th</sup> August 2016

1.9	Institutional	Status

University State		Central		Deemed		Private	
Affiliated College		Yes	<b>~</b>	No			
Constituent College		Yes		No	•		
Autonomous college o	f UGC	Yes		No			
 Regulatory Agency approved Institution (eg. AICTE, BCI, MCI, PC	I, NCI)	Yes	<b>✓</b>	No			
Type of Institution	Co-edı	ucation	•	Men		Women	
	Urban		•	Rural		Tribal	
Financial Status	Grant	-in-aid	J	UGC 2(f)	•	UGC 12B	
Grant-in-aid +	Grant-in-aid + Self Financing				f-financi	ng	~

1.10.	Type of Faculty / Programme			
A	Arts Science Com	nmerce	Law	PEI (Phys Edu)
TI	EI(Edu) Engineering  Heal	th Science	Manageme	ent 🗸
1.11	Name of the Affiliating University	: A	nna University,	Chennai
1.12	Special status conferred by Central / State Government GC/CSIR/DST/DBT/ICMR etc	:	Nil	
2.	IQAC Composition and Activities			
2.1	No. of Teachers	:	11	
2.2	No. of Technical staff	:	01	
2.3	No. of Students	:	02	
2.4	No. of Management representatives	s :	02	
2.5	No. of Alumni	:	02	
2. 6	No. of any other Stakeholder and Community representatives	Ī	01	
2.7	No. of Employers / Industrialists	:	01	
2.8	No. of other External Experts	:	01	
2.9	Total No. of members	:	21	
2.10	No. of IQAC meetings held	:	12	
2.11	No. of meetings with various stakel	holders:		
	Faculty Non-Teaching Staff /Students Alumni Others	6 3 2 1		

#### 2.12 Has IQAC received any funding from UGC during the year? : No

#### 2.13 Seminars and Conferences (only quality related)

#### (i) No. of Seminars/Conferences/Workshops/Symposia organized by the IQAC

Total Nos: 11 International: - National: - State: 1 Institution Level: 10

#### (ii) Themes

- ❖ Active Learning Strategies to build cooperative and inclusive classroom
- ❖ Professional competencies to bring academic excellence
- Blooms Taxonomy and outcome based education
- Effective teaching learning strategies
- Instructional Methods & Teaching with Technology
- Instructional Planning & Student Guidance and counseling
- ❖ Effective communication skill for the teachers
- Gamification in Education
- Writing Quality Research Proposals
- \* Reflective Teaching Mentoring and Counseling students.
- Internationalization of Engineering Education-Empowering the future

#### 2.14 Significant Activities and contributions made by IQAC

#### • Academic Calendar

The Academic Calendar prepared by the ADC was presented and released at the first IQAC meeting

#### • Faculty Empowerment:

Twenty five faculty empowerment programmes organised in association with the University, Industry partners and leading academicians. A series of FDPs were organised from 16.06.2017 to 30.06.2017 for the new recruits and existing staff.

#### a) Orientation programmes

Orientation programme is organised at the beginning of every semester. The following themes were addressed to acquaint the newly recruited faculty with the institution's work norms.

- Professional competencies to bring academic excellence
- ❖ NAAC Accreditation for quality assurance in higher education
- ❖ ADC Guidelines and regulations
- ❖ E-Learning resources for effective teaching learning
- ❖ Best teaching learning practices
- Orientation programme on NBA
- Outcome based education
- Effective utilization of library resources
- **!** Effective communication skill for the teachers.

A new program was introduced this year where our faculty shared their experiences with the fresh recruits in the following areas:

- Handling slow learners
- ❖ Maintaining class room discipline and retaining student attention
- Kindling creative thinking among students
- Exercise and assignment preparation
- Preparation of lesson plan, Question Paper setting, Evaluation
- Mentoring, Guidance and Counseling
- Content beyond syllabi
- Modern teaching tools
- Mentoring students
- ❖ To instill ethics and social responsibility in students.

#### b) Programs for effective curriculum transaction

- Outcome based education
- ❖ Active Learning Strategies to build cooperative and inclusive classroom
- Gamification in Education
- Effective teaching learning strategies
- **A** Blooms Taxonomy.

#### c) Programs to update Technical skills

- 1. FDTP on "IT6005 Digital Image Processing" during 16.06.2017 to 22.06.2017 by Department of Bio Medical Engineering
- 2. FDP on "Effective Teaching Methods and Engineering Mechanics during 07.11.2106 to 12.11.2016. by Department of Civil Engineering
- 3. FDP on "Prestressed Concrete Structure" during 21.06.2017 to 23.06.2017 by Department of Civil Engineering
- 4. FDP on "Internet of Things Foundation and Applications" during 21.12.2016 by Department of Computer Science and Engineering &Information Technology
- 5. FDP on "Advanced Computing Technologies" during 22.06.2017 to 23.06.2017 by Department of Computer Science and Engineering
- 6. FDP on "Analog, Power, Embedded Systems and Wireless (IoT)" during 03.11.2016 to 06.11.2016 by Department of Electronics and Communication Engineering
- 7. FDP on "EC6602 Antenna and Wave Propagation" during 05.12.2016 & 09.12.2016 to 15.12.2016 by Department of Electronics and Communication Engineering

- 8. FDP on "Embedded, Signal and Image Processing" during 22.06.2017 to 23.06. 2017 by Department of Electronics and Communication Engineering
- 9. FDP on "Integration of Alternate Energy Sources & Smart Grid" during 19.12.2016 to 23.12.2016 by Department of Electrical and Electronics Engineering
- 10. FDP on "Power Electronics Application in Renewable Energy" during 22.06.2017 by Department of Electrical and Electronics Engineering
- 11. FDP on "Grid and Cloud Computing" during 28.09.2016 to 30.09.2016 by Department of Information Technology & ISTE
- 12. FDP on "Information & Network Security" during 22.06.2017 to 23.06.2017 by Department of Information Technology
- 13. FDP on "Advances in Manufacturing, Materials and Optimization Techniques" during 19.12.2016 to 23.12.2016 by Department of Mechanical Engineering
- 14. FDP on "Advances in Mechanical Engineering" during 22.06.2017 by Department of Mechanical Engineering
- 15. FDP on "Recent Trends in Management" during 21.06.2017 to 23.06.2017 by Department of Management Studies
- 16. FDP on "Shifting Paradigm: Improving Mentor Competences to Match Present – Day Academic Priorities" on 28.12.2016 by Department of Science and Humanities
- 17. FDP on "Mathematics and its Applications in Engineering" during 22.06.2017 by Department of Science and Humanities
- 18. FDP on "Science for Engineering Applications" during 23.06.2017 by Department of Science and Humanities.

#### d) Industrial visit by faculty

Eight faculty members underwent training at various industries.

#### • Academic Audit

Academic auditing cell has been constituted comprising the Principal, Coordinator and senior faculty members. Extensive audit was conducted. Three audits were conducted at the department level and the final audit was conducted by an audit team from other departments.

#### • Research Sensitization

IPR Cell was established

Research and IPR awareness programs organised

Faculty recognised and awarded for their research contribution

The journal club initiates the students to review articles in reputed journals

Students are encouraged to publish their work in journal/conferences.

#### • Student Welfare

- ❖ Students were made aware of the online courses and 230 students and 23 faculty have completed online certificate courses in NPTEL and IIT-B spoken tutorial. Financial assistance was given to the students participating in events of significance
- ❖ BEC Training, Hindi classes were conducted for the interested students
- ❖ Value added courses were conducted to improve employability.

#### • Meetings / Discussions/Deliberations

- Department Advisory Board meeting
- Research Advisory board meeting
- IIPC Advisory Board Meeting
- Alumni meeting
- PTA meeting.

#### • Programmes for Non-Teaching staff

Programs on Fire-Safety, First-Aid, Computer Literacy-Word and Excel, Operation of lab equipments and Fire extinguishers etc., were conducted.

#### • IQAC News letter

Annual newsletter containing the major activities of the institution and the contribution of IQAC was released.

#### • Feedback

Feedback from stake holders is collected. Analysis is done and report submitted to higher authorities.

#### • Proposals submitted

- ❖ Participated in National Institutional Ranking Framework (NIRF) by MHRD
- ❖ Applied for Distinguished College Award to Computer Society of India
- ❖ Bharatiya Vidya Bhavan National Award for Best Engineering College Principal to Indian Society for Technical Education (ISTE), New Delhi
- ❖ AICTE CII Survey 2017 Report has been sent.

#### 2.15 Plan of Action by IQAC/Outcome

The plan of action is framed by the IQAC in the beginning of every academic year.

(Details in Annexure – I: Refer Pg.No. 33)

2.16 Whether the AQAR was placed in statutory body : Yes

Management Syndicate any other body

Provide the details of the action taken: Management approved the AQAR.

### Part - B

### Criterion – I

### 1. CURRICULAR ASPECTS

### 1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
Ph.D	3			
PG	6			1
UG	7			33
PG Diploma				
Advanced Diploma				
Diploma				
Certificate				
Others				
Total	16			34
Interdisciplinary				
Innovative				

### 1.2 (i) Flexibility of the Curriculum: Elective option

### (ii) Pattern of programmes:

Pattern	Number of programmes
Semester	16
Trimester	-
Annual	-

### 1.3 Feedback from stakeholders\*

	Alumni : 🗸	Parents :	Employers :	Students:	
J	Mode of feedback :On	uline : Manual	: Co-operating	schools (for PE	I):

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

Not Applicable

1.5 Any new Department / Centre introduced during the year. If yes, give details.

Lakshya Cyber Security Centre has been established in our campus. The Centre will conduct training programs on cyber security.

### Criterion - II

### 2. TEACHING, LEARNING AND EVALUATION

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
187	149	11	23	4

- 2.2 No. of permanent faculty with Ph.D. : 40
- 2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Professors		Associate I	rofessors Prof		essors	Others		To	tal
R	V	R	V	R	V	R	V	R	V
12	0	2	0	1	0	-	-	15	-

- 2.4 No. of Guest and Visiting faculty and Temporary faculty: NIL
- 2.5 Faculty participation in conferences and symposia:

#### **Conference:**

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops	81	55	-
Presented papers	78	52	-
Resource Persons	-	02	20

2.	.6	Innovative	processes	adopted b	by the i	nstitution	in T	<b>Teaching</b>	and.	Learning	g:

- Certificate courses in NPTEL and IIT-B Spoken Tutorial taken up by students and faculty
- ❖ Projects, Factory Visits, In-plant trainings and Internships to expose students to various spheres of industry and its operations
- ❖ Alumni lecture series, Industry lecture series, Workshops, Webinars and online lectures by eminent persons from Industry and Academia
- Various Centres of Excellence established in association with MoU partners offer Value added programs
- Skill development programs organised by internal faculty
- ❖ Field visits related to course of study to observe the real application of concepts organized
- Presentation of the internship report to peer group
- Mini projects intended to train students in designing and solving open-ended engineering problems
- ❖ Access to course content on website and MOOC where students can learn at their own pace
- Guidelines for projects revised and common schedules for reviews are followed across all departments with reviewers from industry/other institutes
- Content beyond the syllabi included in course plan
- Identifying slow learners and giving them the necessary guidance to help them overcome their problems.

2.7	Total No. of actual teaching days during this academic year:	160
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- 2.8 Examination / Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)
  - ❖ The end semester examinations are conducted by Anna University
  - ❖ Feedback on the question papers is obtained from the faculty and deviations are reported to the controller of examinations, Anna University
  - Centralised internal assessment system is being practised
  - ❖ An inspection committee has been formed to visit the examination halls for smooth conduct of internal examinations.
- 2.9 No. of faculty members involved in curriculum restructuring / revision / syllabus development as member of Board of Study / Faculty /

Curriculum Development workshop	:	01
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### 2.10 Average percentage of attendance of students:

91 %

#### 2.11 Course/Programme wise distribution of pass percentage:

	Total no.				Division			
	of students appeared	Distinct ion %	I %	II %	III %	Pass %		
B.E Bio Medial Engineering	57	12.28	68.42	10.52	1	91.2		
B.E Civil Engineering	58	0	31.03	22.4	1	53.4		
B.E Computer Science Engineering	43	0	60.46	16.27	1	76.7		
B.E Electronics & Communication Engineering	104	0	66.3	4.8	-	71.15		
B.E Electrical & Electronics Engineering	50	2	70	18	-	90		
B.E Information Technology	35	0	68.57	11.43	-	80		
B.E Mechanical Engineering	133	.004	45.11	18.79	-	64.66		
M.E Computer Science and Engineering	4	75	25	0	-	100		
M.E Embedded System Technologies	4	25	75	0	-	100		
M.E Power Electronics and Drives	3	33.33	66.66	0	-	100		
MBA -Master of Business Administration	98	2	64.28	32.65	-	98.97		
MCA - Master of Computer Applications	42	11.9	83.33	4.76	-	100		

# 2.12 How does IQAC Contribute / Monitor / Evaluate the Teaching & Learning processes:

The IQAC along with established cells in the college contributes to effective teaching learning:

- \* Experts invited to train faculty on Outcome Based Education and Blooms Taxonomy
- ❖ Faculty development programs organized to enhance teaching learning and technical skills
- Experts invited from industries and value added courses are conducted to bridge the industry-academia gap
- ❖ Ensures portion coverage before every internal test and Monitors the conduct of internal examination through ADC, identifies students with learning disabilities and proposes correction methods
- Organizes induction programs and bridge courses for the new entrants
- ❖ Three academic audits are conducted at the department level and an audit by senior faculty from other departments
- Result analysis meetings are organised after every internal test with the Principal. The management review the university results department wise every semester.
- \* Course mentor system has been introduced to monitor the teaching learning process.

#### 2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	-
UGC – Faculty Improvement Programme	-
HRD programmes	-
Orientation programmes	50
Faculty exchange programme	-
Staff training conducted by the university	78
Staff training conducted by other institutions	29
Summer / Winter schools, Workshops, etc.,	3
Others (FDPs Conducted In-house)	160

#### 2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	32	0	4	0
Technical Staff	50	0	4	0

### Criterion - III

#### 3. RESEARCH, CONSULTANCY AND EXTENSION

# 3.1 Initiatives of the IQAC in Sensitizing / Promoting Research Climate in the institution

- The following conferences on prominent research areas were organised
  - ❖ ISTE Convention on Internationalization of Engineering Education-Empowering the future on 02.12.2016 to 03.12.2016. Thrust was given to Research in Engineering Education
  - ❖ National Conference on Advanced Functional Materials and their Applications in Engineering on 25.01.2017
  - ❖ National Conference on Recent Advances in Mathematics and its Applications in science and Engineering on 03.02.2017
  - ❖ IEEE Conference on Innovations in Green Energy and Healthcare Technologies- 2017 on 16.03.2017 to 18.03.2017.

- Students were motivated to apply to funding agencies for socially relevant projects and 6 projects were funded by Tamil Nadu State Council for Science and Technology (TNSCST), 2 projects were funded by IEEE and four projects by TEXAS Instruments.
- Workshops organised in association with ISTE, CSI, ICMR and DST-SERB
- The IPR cell was established and an awareness workshop was organised.
   Innovative projects of students were reviewed and the possibilities of obtaining patents were analyzed
- Ms. Elanangai, Senior Patent Analyst, Chennai, addressed the faculty and senior class students on Patenting
- Nine Ph.D candidates have registered at recognized Research departments.
- Staff have been recognized for their research publications.

#### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	-	-	-	1
Outlay in Rs.	-	-	-	62,86,000

#### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	-	-	-	35
Outlay in Rs.	-	-	-	20,56,600

#### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	120	-	-
Non-Peer Review Journals	-	-	-
e-Journals	-	-	-
Conference proceedings	78	52	-

#### 3.5 Details on Impact factor of publications:

Range 0.4623-4.267 Average 1.0666 h-index 19.3364 Nos. in SCOPUS 22

# 3.6 Research funds sanctioned and received from various funding agencies, industry and other organizations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned in Rs.	Received
Major projects		-	-	-
Minor Projects		-	-	-
Interdisciplinary Projects		-	-	-
	2016	Texas Instruments	5,00,000	4,00,000
T 1 / 1		Texas Instruments	3,84,439	3,84,439
Industry sponsored	2017	Texas Instruments	28,185	28,185
	2017	Texas Instruments	2,670	2,670
		Texas Instruments	8,670	8,670
Projects sponsored by	2016		1,59,100	1,59,100
the University/	2010	DR NGPIT	1,46,800	1,46,800
College	2017	DK NGI II	50,400	50,400
			60,000	60,000
		IEEE	5,000	5,000
		IEEE	5,000	5,000
Students Research	2017		5,000	5,000 10,000
Projects	2017		10,000	10,000
		TNSCST	10,000	10,000
			10,000	10,000
			5,000	5,000
		INSA	30,000	30,000
		ISTE	5,000	5,000
	2016	ISTE	5,000	5,000
		DST NIMAT	14,000	14,000
		SBI	20,000	20,000
		ICMR	50,000	50,000
		ISTE	5,000	5,000
		BMESI	25,000	25,000
Dagaarah Cranti		SEEE	7,500	7,500
Research Grant: Conference/Workshop		CSI	5,400	5,400
Comercines, werkshop		DST - SERB	50,000	50,000
	2017	ICMR ACM	40,000 8,170	40,000 8,170
	2017	Terumo Penpol – Thiruvananthapuram	25,000	25,000
		Shimadzu Medical India Pvt. Ltd, Chennai	34,300	34,300
		India Medtronic Pvt. Ltd., Kochi, Kerala	73,500	73,500
		Carl Zeiss, Bengaluru	25,000	25,000
		Fujifilm, Gurugram	24,500	24,500
Total			18,47,634	17,47,634

3.7	No. of boo	ks published : i) With ISBN No: 1 Cha ii) Without ISBN No: Nil	apters in Ed	ited B	ooks: 1						
3.8	No. of Un	iversity Departments receiving funds from									
		UGC-SAP - CAS -	DST-FIST		-						
		DPE -	DBT Scher	ne/fun	ds _						
3.9	For colleges										
5.9	10.0000	Autonomy CPE -	DBT Star S	Scham							
		, <u> </u>									
		INSPIRE _ CE _	Any other(	specif	y) -						
3.10	Revenue g	generated through consultancy: Rs.1,10,5	500/-								
3.11	No. of con	nferences organized by the Institution									
	Level	International	National	State	University	College					
	Number	1	3	-	-	-					
		Kovai Medical Center Research and Educational Trust (KMCRET)									
		Indian Council of Medical Research (ICMR)									
	Sponsoring agencies	Indian Society for Technical Education (ISTE)									
	ugeneres	Biomedical Engineering Society of India (BMESI)									
		Institute of Electrical and Electronics Engineers (IEEE)									
		Society For Engineering Education Enrichment (SEEE)									
		Terumo Penpol – Thiruvananthapuram									
		Shimadzu Medical India Pvt. Ltd, Chennai									
		India Medtronic Pvt. Ltd., Kochi, Kerala									
		Calzeiss, Bengaluru									
		Fujifilm, Gurugram									
3.12	No. of fac	ulty served as experts, chairpersons or resou	urce person	es: 2	2						
3.13	No. of col	llaborations:									
	Internation	al - National 10 Ar	ny other	-							
3.14	•	kages created during this year: 10									
3.15		get for research for current year in Rs:				1					
	From fund	ing agency 2,65,070 From Management of U	University/Co	ollege:	2,13,125						
	Total 4,78,195										

#### 3.16 *No. of patents received this year*

Type of Patent		Number
National International Commercialized	Applied	
	Granted	
	Applied	Nil
	Granted	INII
	Applied	
	Granted	

# 3.17 No. of research awards / recognitions received by faculty and research fellows of the institute in the year

- ❖ Dr. S. Suresh Kumar, Director Research and Prof. and Head, Dept of ECE, received best paper award for the paper titled "Wind Farm Power Prediction Based on Wind Speed and Power Curve Models" at the Second International Conference on Intelligent and Efficient Electrical System (ICIEES'17) at PSG College of Technology, Coimbatore
- ❖ Mr.R.Anjit Raja, Asst. Professor Dept. of MCA received the best paper award for the paper titled "Adolescent Peoples Digital Depression and Suicide Trails finding from Social Media using Two − Stage Smart Focussed WebCrawler with Cognitive Process" at the International Conference on Modern Applications in Engineering & Technology − 2017 at Institute of Engineering Research (VTP Research Events & Education Pvt. Ltd., Salem).

3.18	No. of faculty from the Institution who are Ph. D. Guides: 22 and students registered under them: 52								
3.19	No. of Ph.D. awarded by faculty from the Institution 7								
3.20	No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)  JRF SRF Project Fellows Any other								
3.21	No. of students Participated in NSS events:								
	University level _ State level _ National level _ International level _								
3.22	No. of students participated in NCC events: Nil								
3.23	No. of Awards won in NSS: Nil								
3.24	No. of Awards won in NCC: Nil								
3.25	No. of Extension activities organized								
	University forum College forum 15								
	NCC NSS Any other								

# 3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

- 1. A medical camp was conducted for the residents of Veeriyampalayam, Coimbatore in association with KMCH on 22.08.2016. Nearly 100 people have undergone their general health check-ups and consulted respective doctors
- 2. To diagnose health condition employees of Emerald Jewels Industry and provide them with appropriate medical advice, medical camp was conducted at Narasimanaickenpalayam from 27.09.2016 to 04.10.2016. Around 3500 employees were benefited. The activity was carried out in association with KMCH
- 3. A School Level Science Technova SPECTRONIC-2017 was organized on 21.01.2017 with the themes of Global Warming, Green Energy, Climate Change and Sustainable Development
- 4. Coaching classes on TANCET examinations for under graduate students was organized from 21.03.2017 to 22.03.2017
- 5. The Narcotics Intelligence and Criminal Investigation Division of the city police organized on 04.04.2017, a drug awareness rally here along with Friends of Police where more than 100 students participated
- 6. In order to create awareness among public about the importance of tree plantation and effects of deforestation, our students distributed around 100 saplings to public at Sitra junction on 03.05.2017
- 7. To Commemorate National energy conservation day and to urge the community to conserve energy, a program was organized for the residents of Kalapatti on 14.12.2016. Posters on Energy scarcity and its impact on sustainability of global eco systems were displayed. Tips for energy saving at homes and offices were given by students
- 8. To educate the community on digital identification system and the importance of Aadhaar card, a program was organized at Veeriyampalayam village on 15.10.2016. The residents were informed about the benefits of Aadhaar card and linking of Aadhaar cards with other systems and the ways to do it
- 9. An awareness program on M-Sand was organized at Kalapatti on 20.08.2016. As the natural sand is not replenished at the rate it is being used, sand mining is an environmental issue. People were made aware of the viable alternative, Manufactured sand
- 10. Due to the spike in dengue cases, an awareness program was organized for the residents of Veeriyampalayam in association with KMCH on 03.10.2016. Prevention measures were discussed.

#### Criterion – IV

#### 4. INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total		
Campus area	18.93 acre	-		18.93 acre		
Class rooms	58 Nos.	9 Nos		67 Nos.		
Laboratories	53 Nos.	2 Nos		55 Nos.		
Seminar Halls	5	2	Ct. Jant Free	7		
No. of important equipments purchased (≥ 1-0 lakh) during the current year.	30	9	Student Fees	39		
Value of the equipment purchased during the year (Rs.)	Rs.3,81,94,651	Rs.13,69,222.00		Rs.3,95,63,873.00		
Others	UPS: 15 Nos					

#### 4.2 Computerization of administration and library

- ❖ In order to provide effective service, all library operations have been fully automated
- ❖ Online catalogue service (OPAC), e-book services, multimedia, CD-Rom services are available
- The library maintains a track of its users and the best library user is awarded during annual day
- The administrative procedures including admission, finance, staff attendance etc. automated through campus management system.

#### 4.3 *Library services:*

	Existing (Till June 2016)  No. Value			wly added 16 -May 2017)	Total		
			No.	Value	No.	Value	
Text Books	28169	1,09,38,209.29	1160	7,59,918.77	29329	1,16,98,128.06	
Reference Books	6258	41,99,506.10	982	3,78,018.00	7240	45,77,524.10	
e-Books*	9099	4,27,065.00	2378	11,500.00	11477	4,38,565.00	
Journals	974	24,99,896.00	94	2,16,199.00	1068	27,16,095.00	
e-Journals*	8581	59,18,612.00	719	12,07,053.00	9300	71,25,665.00	
Digital Database*	1	11,11,434.00	1	-	2	11,11,434.00	
CD & Video	3130	-	181	-	3311	-	
Others (Project Reports)	1957	-	316	-	2273	-	

- E-Journal Package Includes IEEE, Elsevier Science Direct, Springer, ASME, ASCE, Wiley and ASTM Digital Library.
- ❖ E-Book Package includes McGraw-Hill Access Engineering and DELNET
- Digital Database includes EBSCO Business Source Elite and DELNET

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Dept	Others
Existing	1030	11	48 Mbps		899	69	62	Printer-86 Projector-62 UPS-88 Scanner – 9
Added	32	1	-	-	32 - Cyber Security Lab	-	-	-
Total	1062	12	48 Mbps	-	931	69	62	245

# 4.5 Computer, Internet access, training to teachers and students and any other programme for technology up gradation (Networking, e-Governance etc.)

- Students are made aware of the library books, journals, magazines, project reports, digital resources etc during the orientation program
- ❖ Insight on Learning Management System and Campus Management System is given to newly appointed faculty during the faculty orientation program
- ❖ Centre for E-learning conducts awareness programs separately for staff and students on the facilities available.

#### 4.6 Amount spent on maintenance:

i)	ICT	Rs. 6,77,856
ii)	Campus Infrastructure and facilities	Rs. 21,69,435
iii)	Equipments	Rs. 2,19,256
iv)	Others	Rs. 1,15,432
	Total	Rs. 31,81,979

#### Criterion - V

#### 5. STUDENT SUPPORT AND PROGRESSION

#### 5.1 Contribution of IQAC in enhancing awareness about Student Support Services

The IQAC spreads awareness among the students regarding the support services through orientation and awareness programs, website and notice board. The following cells are established to extend support to students.

#### • Centre for E-Learning

Information regarding E-learning resources such as A-VIEW, VALUE Virtual Lab NPTEL, EDUSAT, IIT B Spoken Tutorial etc., are informed to students through the cell during orientation programs and special awareness programs and the college website.

#### • Academic Development Cell

Student support for university/internal examination is extended through this cell. The redressal of grievances with reference to evaluation both at the college and University level is handled through ADC.

#### Research & Development Cell

The research and development centre conducts programs to cultivate a research interest in students. Details regarding travel grant, research funding from external agencies, contests etc are conveyed to the students. The Journal club guides students to explore interesting topics that stretch their horizons.

#### • Entrepreneurship Development Cell

Entrepreneurship development cell conducts programs for interested students where they interact with leading entrepreneurs and change makers.

#### • Professional Societies and Student Chapters

Students are notified about the professional society contests, conclaves, eminent speaker programs, webinars, live discussions with experts etc.

#### • Training and Placement Cell

Schedules for Training in aptitude, soft skills are notified to students through department placement coordinators. Details of Company Specific Training and refreshing basic concepts by internal members is conveyed. Aikayam and career day are major events where students directly interact with employers.

#### • Industry Institute Partnership Cell

This cell identifies the industrial expectation and promotes institutional preparation for meeting industrial needs. The IIPC arranges Projects, Factory Visits, In-plant trainings and Internships in industries of repute. List of companies, respective schedules, requirements and benefits are conveyed to the students. The cell also notifies departments about prospective MoU partners.

#### Career Guidance Cell

Students are made aware of in national and international competitive tests and are motivated to participate. Awareness programs on GATE, and TOEFL were organised. Schedules for Business English Certificate (BEC) classes are notified to the students.

#### • Clubs and Sports:

Students are made aware of the following clubs established in the institution during orientation. Students register themselves in the clubs on their own interest and their active participation educates them on community integration.

- \* Tamil Mandram
- ❖ National Service Scheme (NSS)
- \* Red Ribbon Club (RRC)
- Blood Donors Club
- Literary and Debating club
- Yoga Club
- ❖ Youth Red Cross (YRC)
- ❖ Mu sic and Dramatic Club
- Environment Awareness Club
- Photography Club
- Value Education / Moral Value
- \* Rotary Club
- \* Women Development Cell
- Consumer Club

#### • Centre for Continuing Education

The centre offers Skill based training programs for students.

#### • Value Education / Moral Value

The cell works towards imparting values by which students can emerge as good citizens. Students listen to Gandhian thoughts and thoughts of swami Vivekananda.

#### • Counseling Committee

The Counselling Cell provides counselling services carried out in privacy and strict confidentiality. Dr.N.Rajendiran psychologist provides professional counselling for students referred by the departments. Students with learning disabilities, interpersonal conflicts, anger management, emotional disturbances, peer pressure and value-based conflicts have been counseled. Career counseling has been provided. Many students have benefitted and handle themselves with improved self-esteem and confidence.

#### • Scholarship

Details of Government, Management and other Scholarships are informed to the students through notice board, website and induction programs. The support extended by the management such as Medical Insurance and concession at KMCH is informed to students during their induction programs

# 5.2 Efforts made by the institution for tracking the progression

#### Academic performance

- ❖ Analysis of results after every internal evaluation by the department. The heads discuss these reports with the principal. Slow learners are identified and remedial measures discussed
- ❖ Analysis of the end semester results is carried out with the Principal and Management.

#### **Tutoring**

- ❖ The faculty tutors monitor the academic and personal development of the student
- ❖ Advanced learners are identified and special tasks are assigned
- ❖ Slow learners are given additional support during extended hours
- The academic progress of students is monitored the tutors during tutor ward meetings
- Class committee meetings are organized to discuss the syllabus coverage and their level of understanding.
- End semester meetings help to track the academic progress.

#### Audit

- ❖ Academic audits are conducted to ensure effective curriculum delivery
- Internal audit for laboratories are organized
- Regular feedback from students, parents and alumni assist in tracking the progression
- ❖ Performance of the students in co-curricular and extra-curricular activities are monitored and encouraged by presenting awards
- ❖ Performance of the faculty is evaluated through staff appraisal system

UG	PG	Ph. D.	Others
1959	312	-	-

(b) No. of students outside the state :

(c) No. of international students

Men

No	%
1469	65

Women

No	%
802	35

#### First year admission details

Last Year(2015-2016 Ist year Admission)					This Year(2016-2017 Ist year Admission)						
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
194	52	0	477	0	723	89	37	0	568	-	694

2015-2016 Dropout ratio: 4.3%

2016-2017 Dropout ratio: 2.5 %

# 5.4 Details of student support mechanism for coaching for competitive examinations (If any)

- \* Experts from other countries and institutions are invited to motivate the students to utilize the avenues available for higher education
- ❖ Intensive focus is given to the students to qualify in English language by taking up Business English Certificate (BEC) classes
- Bridge Courses are conducted by all the departments to strengthen the fundamental concepts
- ❖ Career Guidance Cell exclusively focuses on providing exposure to Competitive exams such as GATE, TOEFL, GRE etc.,
- ❖ Coaching for NCFM Online certification course was organized to develop the students as certified professionals.

No. of students beneficiaries: 650

### 5.5 No. of students qualified in these examinations

NET SET/SLET GATE 3 CAT 1

IAS/IPS etc UPSC UPSC NCAT - 4

NCAT- National Creativity Aptitude Test

#### 5.6 Details of student counseling and career guidance

#### **Counselling**

- a) The tutor ward system helps to identify students with personal and academic issues
- b) Students are counselled by the Faculty, Heads of the departments and Principal based on the academic performance
- c) The student who requires psychological help is given counselling by a full time psychologist Dr.N.Rajendiran.

No. of students benefitted: 38

#### Career guidance

- d) Students are identified based upon their interest towards placement/Higher studies/entrepreneurship
- e) Students are trained in general and technical aptitude
- f) At the time of placements, company specific training is organized based on the expectations of the recruiters
- g) Training on technical skills and fundamental subjects are given by internal members
- h) Entrepreneurship development cell conducts programs for interested students
- i) Career day is scheduled for every discipline which gives an opportunity to meet with potential employers to discuss opportunities
- j) Industry Institute confluence Aikyam is organised every year to know the industry requirements.

No. of students benefitted: | 1500

#### Details of campus placement

	On Campus		Off Ca	mpus
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Organizations Attended	Number of Students Placed
100	525	414	35	02 (14 Offers- 12 Placed in On campus drive)
	Total No.	of Students Plac	red · 416	

# 5.8 Details of gender sensitization programmes

#### **Themes**

5.7

- 1. Talks on Women-health were organized in association with KMCH
- 2. A film on Women hygiene was screened for the first year students
- 3. A Survey on women health awareness was carried out and presented to Dr.Anbukani Subbaiyan, Obstetrician and Gynecologist, KMCH Coimbatore who addressed the students based on the survey results
- 4. Women Entrepreneurship program was organized in association with Indian Women Network of Confederation of Indian Industries (CII-IWN)

5.9	Students Activities						
5.9.1	No. of students participated in Sports,	, Games and other event	ts				
	Sports						
	State/ University level 125 National	al level - Interna	ntional level -				
	Other Events						
	State/ University level 155 Nation	nal level 80 Intern	ational level 37				
5.9.2	No. of medals /awards won by student	s in Sports, Games and	other events				
	Sports: State/ University level 10	National level -	International level -				
	Others: State/ University level 113	National level 67	International level 37				
5.10	Scholarships and Financial Support						
		<b>Number of Students</b>	Amount				
	Financial support from institution	72	Rs.9,20,000.00				
	Financial support from government	651	Rs.91,40,600.00				
	Financial support from other sources	-	-				
	Number of students who received International/National recognitions	106	Rs.9,15,825.00				
5.11	Student organized / initiatives						
	Fairs : State/ University level	National level 9	International level				
	Exhibition: State/ University level 1	National level 1	International level				
5.12	No. of social initiatives undertaken by	the students: 15					
5.13	Major grievances of students (if any) redressed : NIL						

#### Criterion – VI

#### 6. GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### 6.1 State the Vision and Mission of the institution

#### **VISION**

Empower the students to succeed in a changing world to become productive engineers and responsible citizens.

#### **MISSION**

- ❖ Produce graduates with sound technical knowledge and skills in diverse engineering disciplines
- ❖ Adopt innovative teaching and experiential learning practices by competent faculty.
- Enhance knowledge and skills in cutting edge technologies through alliances with industry and research organizations
- Create conducive learning environment with state-of-art infrastructure and laboratories
- Inculcate ethical standards among students, both societal and personal through outreach programs.

#### 6.2 Does the Institution has a Management Information System

Yes, the campus management system is an integrated system which automates all aspects of the academic and administrative functioning.

# 6.3 Quality improvement strategies adopted by the institution for each of the following:

#### 6.3.1 Curriculum Development

Being an affiliated institute, the curriculum prescribed and academic schedule issued by Anna University, is strictly followed. However, the institute takes efforts for curriculum enrichment.

#### Efforts taken for Curriculum enrichment:

- ❖ Bridge courses in basic sciences and languages
- Online Certificate courses in NPTEL and spoken tutorial
- ❖ A-VIEW, VALUE Virtual Lab
- **❖** EDUSAT
- Invited talks, seminars, workshops
- ❖ Industry visits, In-plant training
- ❖ Value added courses through MoU partners
- **❖** Alumni lecture series
- Industry Expert Lecture series
- Industrial virtual tours.
- ❖ Conferences Research sensitization.

#### 6.3.2 Teaching and Learning

- Outcome Based Education
- Empower faculty on technical skills and effective teaching
- Subject Mentor system introduced
- ICT based teaching
- Learning Management System
- Projects and internships
- Webinar and Video Conferences
- Case studies and Simulation.

#### 6.3.3 Examination and Evaluation

- ❖ The ADC conducts internal exams and valuation centrally
- ❖ Faculty prepare the question papers based on the Bloom's taxonomy which are scrutinized by the subject mentor and respective heads
- ❖ The list of evaluators is prepared by the respective departments and submitted to ADC
- ❖ ADC organizes the central evaluation on specified dates
- ❖ The answer scripts are evaluated and distributed to the students within 3 working days from the date of examination
- \* Result analysis is consolidated and submitted to the Principal
- Result Review meeting is organized for improving the academic performance.

#### 6.3.4 Research and Development

- \* Research and Development Council functions under the Chairperson and Director-Research
- IPR Cell has been established
- Fifteen faculty have been rewarded for publications in peer reviewed journals
- Proposals were submitted for seeking grants for organizing Conference, Seminar and Workshop
- ❖ Programs have been organized with funding from ICMR (Indian Council of Medical Research), BMESI (Biomedical Engineering Society of India), SEEE (Society for Engineering Education Enrichment), ISTE (Indian Society for Technical Education, CSI (Computer Society of India), TI (Texas Instruments), EDII (Entrepreneurship Development Institute of India), DST-SERB (Science and Engineering Research Board) ACM (Association for Computing Machinery)
- TNSCST (Tamilnadu State Council for Science and Technology) has funded 6 students projects and IEEE has funded two students projects and Texas Instruments has funded four students projects
- ❖ Faculty are motivated to pursue research and seven faculty have completed doctoral programme
- ❖ Ten MoUs are signed this year to foster research and education.

#### 6.3.5 Library, ICT and physical infrastructure / instrumentation

- ❖ The library advisory committee recommends the up gradation of facilities in the library
- The library is automated and the database is available on OPAC (Online Public Access Catalogue) for bibliographical search
- ❖ The college library has a collection of 36569 Volumes of books with 10135 titles. Digital library is equipped with 22 computers and has access to journals and reference materials with the institutional subscriptions of IEEE, Elsevier Science Direct, Springer Link, EBSCO Database and DELNET
- Classrooms, Seminar Halls and Conference Rooms are equipped with Computers and Video Projectors. All departments are equipped with computers, printers and internet access
- ❖ A well equipped gymnasium, sports area for indoor and outdoor facilities, halls for club activities are available
- Separate hostels are available for male and female students
- ❖ Hostel accommodation and Transportation facilities for students and staff.

#### 6.3.6 Human Resource Management

Campus Management System is being upgraded. Revised rules and regulations for faculty has been released by the HR department. Calendar of Annual holidays for staff and students has been released by the HR department.

#### 6.3.7 Faculty and Staff Recruitment

AICTE norms and recommended cadre ratio are followed during recruitment. The vacancies are notified in website and news papers and applications are received. The selection panel consists of the Principal, Members of the Management, Head of the concerned department and external subject experts. Competency based selection is done.

#### 6.3.8 Industry Interaction / Collaboration

The Industry Institute Partnership Cell (IIPC) was established with a grant in aid from All India Council for Technical Education (AICTE), New Delhi. The IIPC and placement and training cell strive for exchange of knowledge between academia and industry. HR meet, Career day and Aikyam are annual events where industry personnel visit the campus and interact with faculty and students. Nine new MoUs have been signed with industries this year. Students are assisted in taking up internships, Industrial visits, Industrial Projects, In-plant Training (Summer &Winter) Programme and factory visits. Virtual industry tours are organized by the IIPC.

#### 6.3.9 Admission of Students

The College website, prospectus and the curriculum design book contain information about the institution and the programmes offered. The prospectus that highlights the details of various programmes of the College is prepared every year prior to the commencement of admissions. The prospectus also gives details of eligibility norms for admission. It is given to the applicants along with the application form.

All information relating to admission processes is made known to the public by way of a Help Desk that is set up during admissions.

The admission is governed by the norms of the affiliating University. The institution follows the norms laid down by the Tamil Nadu state government through Directorate of Technical Education (DOTE) under the Unified Single Window Admission System for Undergraduate Engineering Programmes. Admission into the Post Graduate programs like MBA, MCA and ME is based on the Tamil Nadu Common Entrance Test (TANCET) conducted by the Anna University. Admission to the Ph. D programs in recognized Research Departments is done as per Anna University norms.

A Consortium of Self Financing Professional, Arts and Science Colleges in Tamil Nadu have been granted permission to admit students into private professional colleges under the Management Quota. Students are admitted based on the consortium ranking

#### 6.4 Welfare schemes

**Medical:** Students can avail medical concession at the Kovai Medical Centre and Hospital (KMCH). Faculty are provided medical leave, and maternity leave. Faculty and students are covered under accidental insurance.

**Funding:** Students are provided with Merit scholarships by the management. Financial assistance is given to students for project presentations outside the city and participation in professional events. Facilities provided to students for off campus placement drive. KMCRET funds conferences and innovative student projects.

**Non-teaching staff** are provided free transport facilities. Provident Fund and accident insurance are provided along with earned leave benefits.

Concession at The NGP School and KMCH is available for teaching and non-teaching staff.

6.5 <i>Tota</i>	l corpus fund generated:	45 lakhs
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6.6 Whether annual financial audit has been done: Yes Vo

#### 6.7 Whether Academic and Administrative Audit (AAA) has been done?

	Ext	ternal	Internal		
Audit Type	Yes/No	Agency	Yes/No	Authority	
Academic	-	-	Yes	IQAC	
Administrative	-	-	Yes	Trust Office	

#### 6.8. Does the University / Autonomous College declare results within 30 days?

Not Applicable, since the college is affiliated to Anna University, Chennai.

# 6.9 What efforts are made by the University / Autonomous College for Examination Reforms?

Any discrepancies in university question papers and examination is reported to the Controller of Examinations, Anna University, Chennai.

# 6.10 What efforts are made by the University to promote autonomy in the affiliated / constituent colleges?

Not Applicable

#### 6.11 Activities and support from the Alumni Association

Alumni are members of departmental advisory board. They give feedbacks on the electives, value added programmes and placement training programs. The Alumni mentor students through a social media group where they share opportunities for internships and placements. Alumni Lecture series has been introduced where they give talks and also depute experts in their industry to address our students. Alumni abroad guide students on the procedures for higher studies in foreign universities. Alumni meet was organized and Alumni newsletter was released.

#### 6.12 Activities and support from the Parent – Teacher Association

Parents are included as members of advisory board of individual departments. Two PTA meetings were organized on 27.08.2016 & 28.08.2016 and 24.04.2017 respectively where parents expressed their views regarding their wards' studies, hostel facilities, industrial exposure, placements and extra-curricular activities. A questionnaire on the infrastructure, faculty and programmes conducted by the college is given to parents when they visit departments and their assessment is reviewed.

#### 6.13 Development programmes for support staff

Support staff are Encouraged to pursue higher studies and thirteen staff are pursuing their higher studies. They various skill development programs are organized by the departments. Training on Computer literacy is a regular feature for new recruits. Programs on Yoga and Meditation are organized.

#### 6.14 Initiatives taken by the institution to make the campus eco-friendly

The campus is enabled with rain water harvesting system. Solar panels are installed to support the power requirements. Solar powered lights are used in the college and hostel premises. An exclusive gardening team takes care to maintain a green campus.

#### Criterion – VII

#### 7. INNOVATIONS AND BEST PRACTICES

- 7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.
  - Faculty development programs were organized for all the faculty members to sensitize Outcome Based Education (OBE) and its importance
  - Awareness programs on Blooms taxonomy and OBE were organised for faculty members
  - Faculty development programs for each department were organized with the help of external experts and internal faculty members
  - E-learning centre is strengthened, whereby students take up online certification courses from NPTEL and IIT-B Spoken tutorial
  - Effective counselling has been given to the students with the professional counsellors of the college
  - Business English Certificate (BEC) courses have been organised and students have obtained certifications.
  - Department advisory board has been formed
  - Collaborative research work is ongoing with KMCH research foundation
  - Webinars have been organized
  - Transparent HR module (Backbone) was created for the employees, where they can view their salary and deduction details for the particular month and also leave and permission application is made through online
  - Business Simulation Games oriented learning was introduced for MBA students through LEARNBIZ Simulations
  - A school level science exhibition was organized where the school students exhibited their projects and also got an exposure to projects done by our students in various engineering disciplines
  - Ten MoUs have been signed with industries
  - An auditing cell has been constituted and Internal audits have been strengthened to monitor the academic progress
  - Dr.N.G.P. Institute of Technology Aosta Technology Incubation Center provides technical assistance to students for innovative ideas in developing Mobile APPs and on Medical Equipment Integration.
- 7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

(Details in Annexure: I: Refer Pg. No.33)

7.3 Give two Best Practices of the institution (please see the format in the NAAC Self-study Manuals)

#### 7.3 Give two Best Practices of the institution

#### Best Practice -I

#### 1. Title of the Practice

Create a conducive climate for the students through effective counseling

#### 2. Goal

The goal is to provide right guidance to the students in terms of their career and improving their quality of life

#### 3. The context

- Help students to improve their morale and learning abilities
- Seeks to connect students skills with their personal and career goals
- Improvement of student teacher relationship.

#### 4. Practice

- Every department has an Effective tutor ward system where a Faculty member acting as tutor has 20 wards under them
- Tutor who gives personal attention to their particular wards will find out the difficulty faced by the students and then will guide accordingly
- Students who need more facilitation will come under the guidance of Respective Head of the Departments
- Students who suffer from anxiety, relationship problems, depression and academic concerns were counselled by a full time faculty/Psychologist Dr.N.Rajendiran.

#### 5. Evidence of Success

- Counselling helped the students to realize their academic and personal goals
- Students were able to realize a protective environment inside the campus.

#### 6. Problems Encountered and Resources Required

• Tutors need to interact closely with students to find their difficulties and requirements for counselling.

#### **Best Practice –II**

#### 1. Title of the Practice

To create a knowledge sharing culture to enrich the skills of faculty members

#### 2. Goal

The goal is to create a collaborative learning environment for the faculty members

#### 3. The context

- Support Faculty members in their professional development
- ❖ Increase motivation and enthusiasm towards teaching
- **Enhancing** the efficiency and performance of teaching skills.

#### 4. Practice

Orientation programs were organise for new. Faculty development programs were organized by all departments wherein external experts and in-house subject experts have enhanced the skill sets of our faculty. FDPs on effective teaching and outcome based education were organised.

#### 5. Evidence of Success

Around 25 FDPs were organised with the support of external and internal members. Faculty Development Programs enabled the faculty members to develop competence and improvement in teaching.

#### 6. Problems Encountered and Resources Required

Serious efforts must be taken in order to identify the area of needs of the targeted participants.

#### 7.4 Contribution to environmental awareness / protection

- In order to create awareness among public about the importance of tree plantation and effects of deforestation, an activity called Habitat for Humanity was organized at STTRA junction
- A School Level Science exhibition Technova SPECTRONIC-2017" was organized on 21.01.2017 with the themes of Global Warming, Green Energy, Climate Change and Sustainable Development
- · Solar panels have been installed
- Solar water heaters have been installed in the hostel premises.
- Solar lamps have been installed in the college and hostel premises.
- 7.5 Whether environmental audit was conducted? Yes
- 7.6 Any other relevant information the institution wishes to add,
- 8. Future plans of the institution
  - 1. Youth Parliament to be constituted
  - Professional chapters of Indian Association of Energy Management Professionals (IAEMP) and International Society of Automation (ISA) to be started
  - 3. MoU with University of Petronas (UTP), Malaysia to be signed
  - 4. MoU with National Small Scale Industries Corporation (NSIC) to be signed
  - 5. To establish a centre for faculty. Development and Training
  - 6. To set up and run N.O.P Community Radio
  - 7. Coaching centre for Gate Examinations to be established
  - 8. Bio Gas Plant to be implemented
  - To set up an Ministry of Micro, Small and Medium Enterprises(MSME) incubation centre

Name: Dr.F.Mary Magdalene Jane

Signature of the Coordinator, IQAC

Name: Dr.K.Perkumaran

Signature of the Chairperson, IOAC

## ANNEXURE – I

### Plan of Action

Plan of Action	Action taken / Outcome
Training and development programs to empower faculty	<ul> <li>Teaching learning: 9 programs</li> <li>Skill development: 15 programs</li> <li>Anna university sponsored: 2 programs</li> </ul>
To increase ICT enabled learning	Around 230 students and 23 faculty have completed online certificate courses in NPTEL and IIT-B spoken tutorial.
To Strengthen Research Activities	<ul> <li>IPR Cell has been established in the campus</li> <li>Two International and one National Conference has been conducted</li> <li>Seven faculty have received their doctoral degrees.</li> <li>One hundred and twenty papers published by faculty in international journals</li> <li>Fifty two papers presented by faculty in National conferences</li> <li>Seventy eight papers presented by faculty in International conferences</li> <li>One book and a book chapter has been published</li> </ul>
To strengthen industrial projects	<ul> <li>A consolidated report of student projects has been prepared at the department level</li> <li>External experts invited to review final year projects</li> <li>Six student projects received funds from TNSCST</li> <li>TEXAS Instruments has funded four students projects</li> <li>IEEE has been funded two students projects</li> <li>Industry projects and Internships arranged through Institute Partnership Cell (IIPC).</li> </ul>
To Strengthen Industry Linkages	Ten MoUs were signed with industries during this academic year.

Mentoring system to be strengthened.	A full-time faculty/Psychologist Dr.N.Rajendiran was appointed and 38 students were counseled.
To strengthen alumni relations	<ul> <li>Alumni association has been registered.</li> <li>Alumni meet was organised and Alumni newsletter has been released</li> <li>Alumni has been appointed as members in department advisory boards.</li> <li>Alumni lecture series has been introduced</li> </ul>
Centre for value education	A centre has been established to inculcate moral / societal and ethical values among the students. Lecture series on Gandhian and Swami Vivekananda thoughts were organised

#### **ABBREVIATIONS**

**ACM** Association for Computing Machinery

ADC Academic Development Cell

**AVIEW** Amrita Virtual Interactive E-Learning World

**BMESI** Biomedical Engineering Society of India

**CSI** Computer Society of India

DST Department of Science and Technology

**EDC** Entrepreneurial Development Cell

**EDII** Entrepreneurship Development Institute of India

**FDP** Faculty Development Program

**GATE** Graduate Aptitude Test in Engineering

**IAEMP** Indian Association of Energy Management Professionals

**ICMR** Indian Council of Medical Research

**IEEE** Institute of Electrical and Electronics Engineers

**IETE** The Institution of Electronics and Telecommunication Engineers

**ISTE** The Indian Society for Technical Education

**IIPC** Industry Institute Partnership Cell **INSA** Indian National Science Academy **KMCH** 

Kovai Medical Center and Hospital

KMCRET Kovai Medical Center Research and Educational Trust

MHRD Ministry of Human Resource Development

**NBA** National Board of Accreditation

NIRF National Institute Ranking Framework

NPTEL National Programme on Technology Enhanced Learning

PTA Parents Teachers Association

SAE Society of Automotive Engineers

SEEE Society for Engineering Education Enrichment

**SERB** Science and Engineering Research Board

**STTP** Short Term Training Programme

TANCET Tamil Nadu Common Entrance Test

ΤI **Texas Instruments** 

**TNSCST** Tamilnadu State Council for Science and Technology

TOEFL Test of English as a Foreign Language

\*\*\*\*\*\*