

SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

DHANALAKSHMI COLLEGE OF ENGINEERING

DHANALAKSHMI COLLEGE OF ENGINEERING MANIMANGALAM,
PUDUCHERI ROAD, MANIMANGALAM POST, SRIPERUMBUDUR,
KANCHIPURAM DISTRICT.

601301

www.dce.edu.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

(Draft)

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Dhanalakshmi College of Engineering (DCE), under the ambit of the prestigious Dhanalakshmi Education Trust was set up near Tambaram, Chennai in the year 2001-2002. DCE is the brainchild of the eminent and dedicated academician and former professor of Anna University Dr. V. P. Ramamurthi. The college is approved by the All India Council for Technical Education (AICTE), New Delhi and affiliated to Anna University, Chennai.

Dhanalakshmi College of Engineering has now grown into a 'distinguished centre for engineering and technological studies', providing a serene environment and congenial atmosphere for learning. The institution not only provides quality engineering education to mould the students into technologically sound, efficient, effective, and creative engineers but also to mould them as responsible human beings. Till date, the Institution has produced around 6000 engineers and more than 1300 post graduates. Dhanalakshmi College of Engineering was included in the Fortune 500 list for the year 2016. The Institution was also ranked in the 4th place by Anna University for its excellent infrastructure.

The Institution offers six under graduate programmes in engineering and three post graduate programmes. The undergraduate programmes are:

1. Electrical and Electronics Engineering
2. Electronics and Communication Engineering
3. Computer Science Engineering
4. Information Technology
5. Mechanical Engineering
6. Civil Engineering

The post graduate programmes offered are:

1. Embedded Systems
2. Computer Science Engineering

The four UG programmes EEE, ECE, CSE, and IT are accredited by NBA, New Delhi. The Institution is also ISO 9001:2008 certified.

Vision

Dhanalakshmi College of Engineering is committed to providing highly disciplined, conscientious and

enterprising professionals conforming to global standards through value based quality education and training.

Mission

- To provide competent technical manpower capable of meeting the global requirements of the industry
- To contribute to the promotion of Academic Excellence in pursuit of Technical Education at different levels
- To train the student to sell his brawn and brain to the highest bidder but to never put a price tag on heart and soul

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Excellent Infrastructure
- Good Management Support
- More than adequate Lab facilities
- Highly qualified and motivated teachers
- Student-centric practices
- Good Placement record

Institutional Weakness

- Promotion of innovation
- Lack of Research culture percolation
- Meager number of Faculty publications
- Inadequate R & D Budgeting

Institutional Opportunity

- Possibility for Autonomy
- Increasing the number of PG courses
- Creating Technology Business Incubators
- Establishing Research Centres
- Scope for Industry Institute Interaction
- More Alumni Engagement

Institutional Challenge

- Improving quality of students
- Lack of interest in Engineering Education
- Visibility through Improved Ranking
- Mentoring of students

- Improving the number of Core Company Placements

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Dhanalakshmi College of Engineering follows the academic schedule of Anna University and plans its academic processes in accordance with the prescribed timeframe. The institution plans sessions for slow learners and fast learners by allotting suitable faculty members with respect to their proficiency matrix and qualifications. Class committee meetings are convened periodically to review and provide corrective measures in a systematic manner. DCE makes extensive use of technological aids to optimize the teaching-learning process by way of OHPs, LCD projectors, Wide Screen LED TVs, NPTEL and web resources.

Till date, seven eminent academicians from DCE have been on the Boards of Studies of various Universities and autonomous institutions. New courses in the campus have increased by 24% over the last five years. Choice based system (CBCS)/elective course system has been implemented in the institution by 100%.

Value added courses were introduced into the academic scheme of things at DCE for making students 'industry-ready'. A total of 3057 students completed value added courses between 2012 and 2017. During the last five years, 715 students have completed projects/internships.

Feedback from the stakeholders indicated that more number of field visits and in-plant trainings needed to be incorporated into all academic processes at the Institution. Many parents wanted the syllabi to be upgraded according to the latest trends in the industry.

The Institution has taken note of all these suggestions and aims to implement most of the suggestions as quickly as possible. Some of the suggestions have already been implemented during the last five years.

Teaching-learning and Evaluation

The Institution implements the teaching, learning and evaluation process meticulously. At the entry level, the various Heads of the Departments along with the Deans analyze the registered students' data and interests. Bridge Courses are thereafter conducted before the commencement of regular classes. The task of mentoring 20 students is assigned to each faculty member for the entire course. Slow learners are given additional coaching.

Departments encourage students to organize symposia annually for learning team work and life skills. We encourage peer learning for the slow learners to improve their performance. Students are given aptitude skills training from the second year onwards for improving their problem-solving abilities. Tutorial classes are organized with a student staff ratio of 20:1. Our Institution has produced more than 40 Anna University rank holders in the past.

We have incorporated Information Communication Technologies (ICT) such as NPTEL, Edusat and GUVI for enhanced learning and instruction.

During the last 5 years, more than 90 faculty members possessed experience ranging from 7 years to 40 years. Some of the faculty members have received academic recognition from Rotary International, IIT Madras and

also the State Government. The Institute also has a Department Academic Audit Committee for scrutinizing all academic processes.

The Programme Outcomes (POs) and Course Outcomes (COs) are displayed in the website and the students are also apprised about the same. These outcomes are measured against expectation settings and necessary inputs are modified accordingly.

Research, Innovations and Extension

Since its inception in 2001, DCE has been encouraging research initiatives in the academic system. We have invested on research infrastructure to the tune of almost 5 crore rupees over the past five years. At present, there are 16 Research guides recognized by Anna University and other reputed universities. Many projects have been funded by government and private agencies to the tune of almost 53 lakh rupees.

Anna University has recognized the Department of Electronics and Communication Engineering, Department of Physics and Department of Chemistry at DCE as Research Centres. The Institute has an extensive R&D cell spread over 15, 000 Sq. ft with WIFI facility. Reputed companies have joined with us to establish centres of excellence like Oracle lab, Robotics lab, Cisco Networking Academy, DELL EMC2, VMWARE Centre, NI LabView, IEDC, etc.

Open House Project exhibition at DCE is an event that celebrates the innovations of students from schools, colleges, polytechnics and other organizations. This event has been happening at DCE for the past four years (2014-17). More than 1000 visitors attend this event every year.

Till date, 26 seminars have been conducted for focusing on Industry-Academia Innovative Practices during the last 5 years. Four seminars were conducted for providing information on Intellectual Property Rights. More than 1300 participants attended these seminars for understanding patenting procedures.

DCE has educated faculty members on the prevention of plagiarism. All research scholars are required to submit their published papers for plagiarism checking by URKUND software.

Infrastructure and Learning Resources

The Institution possesses 75 acres of land in Manimangalam village near Tambaram and has a built up space is 5.5 lakh sq.ft. DCE consists of individual blocks for each department in addition to the Administrative block which houses a spacious canteen, administrative office, Library, examination halls and the Research and Development Centre. The two hostels for boys and girls can accommodate 600 students. Classrooms alone account for 60 rooms apart from laboratories. All the facilities in terms of classrooms and laboratories are above the norms prescribed by AICTE and Anna University. Anna University has been affiliating DCE with zero deficiency for the past 5 years in all eligible courses.

DCE has a total of 1300 computing systems and 58-inch Skyworth LED TVs in all the classrooms. Sports facilities occupy an area of 39,314 sq.m. Auditorium and seminar halls occupy 50 sq.m.

The Institution's library is automated with Integrated Library Management System (ILMS) Auto Lib 6.0 version and RFID Theft Detection System. It also has 8865 titles, 35,803 volumes of books, 88 National

journals, 49 International journals and 6 newspapers. Apart from reprographic facilities, the library hosts a reading area of 500 sq.m.

Rs. 3869 lakhs was spent on infrastructure augmentation during the last five years. Intranet of 1 Gbpsfibre optic cable connects all departments and laboratories with 110 Mbps of internet bandwidth from Airtel and BSNL to make the campus Wi-Fi-enabled. All the 50 laboratories are equipped with the latest machinery for performing more than adequately the university-prescribed experiments.

Student Support and Progression

Dhanalakshmi College of Engineering has always been a stickler for transparency in student-teacher interactions. This includes the active exchange of ideas for improvement from both faculty members as well as students. For students to progress quickly as far as their academic prowess is concerned, Department Associations organize Seminars, Symposia, Conferences and Workshops.

The following Associations actively function in the Institution:

1. Association of Sciences and Humanities (UNISPARK)
2. Association of Electronics and Communication Engineers (ALTIUS)
3. Association of Electrical and Electronics Engineers (VIDYUTH)
4. Association of Computer Science Engineers (CAPTCHA)
5. Association of Mechanical Engineers (THROTTLES)
6. Association of Civil Engineers (ACE)

International and National professional societies like IEEE, SAE, IETE and ISTE function for the benefit of the student community to provide them with global exposure.

The Institution has 2555 alumni enrolled for the active exchange of ideas for continuous improvement and upgrading.

On an average, 61% of our students have benefited from Government and non-governmental scholarship schemes. Students are also actively counseled for optimum performance in competitive examinations such as UPSC, TOEFL, GRE and TOEFL. The evidence of this was manifested when 79 students cleared such exams successfully.

On the Placement front, DCE notched up an average of almost 90% placements. Around 140 companies have conducted recruitments for our students over a period of 5 years. More than 10% of DCE students opted for higher studies in institutions like PSG College of Technology, Anna University and foreign institutions like Texas A & M University etc.

Governance, Leadership and Management

The Management strives hard to achieve its vision and mission statements. The council comprises senior academicians, industry professionals and research consultants. All the Deans, Directors and Heads of the Department participate in the deliberations of the Governing Council meetings.

All the Heads of the Department conduct faculty meetings every fortnight. The minutes of the meetings are communicated to the Principal who in turn consolidates all the suggestions and submits them to the Management for approval. Also, faculty members are involved in functional committees like

1. Discipline
2. Anti-ragging
3. Industry Institute Interaction Cell
4. Gender Sensitization Cell
5. Professional Society Chapter
6. Club activity
7. Entrepreneur Development Cell

The college has the following Departments/Cells functioning independently.

1. Training and Placement Department
2. Institute Industry Interaction Cell
3. Examination Cell
4. Transport Department
5. Physical Education Department
6. Hostel Administration

In order to enhance career opportunities for students, training is provided for competitive examinations like GATE, UPSC, GRE, TOEFL. An Industry Institute Interaction Cell (IIIC) at DCE takes care of skill development labs, internships and industrial orientation seminars. The College has been an ISO certified institution since 2008. All eligible UG programmes have been accredited by NBA for two periods. The College has also participated in the NIRF 2016.

Thus it can be envisaged that the leadership and governance is poised towards achieving excellence in engineering education.

Institutional Values and Best Practices

The Institution embarked on its inimitable venture of promoting green initiatives by earmarking 2 acres of virgin-green land for the cultivation of 37 types of herbal plants in collaboration with Ashok Leyland Pvt. Ltd. and YadhoonOorey, an Agaram Foundation subsidiary. The Institution has augmented its requirement of electrical power with almost equivalent capacity of solar power and also provides solar water heaters in the hostels. The college has an effective waste management system for solid waste, liquid waste and e-waste. Every block is provided with rainwater harvesting facility.

DCE conducts various community development activities for the benefit of people in the nearby villages, like Blood donation camp, Eye camp, Fitness medical camp, Dental camp, Ayurvedha Medical camp, Yoga camp, Cancer Awareness Programme, Health Awareness Programme through various clubs like NSS, Rotaract and YRC.

It was necessary to inculcate the industrial as well as research bent of mind at an early stage from the first semester itself. In this regard the institution decided to incorporate project preparatory courses and value-added courses in addition to the curriculum.

Placement oriented training has been provided right from the first year till the final year for better career prospects. Green Initiatives were put in place for better understanding and maintenance of the environment we inhabit. Remedial coaching classes were conducted for slow learners as and when required. Club activities were introduced to break the monotony of the academic rigmarole.

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2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	Dhanalakshmi College of Engineering
Address	Dhanalakshmi College of Engineering Manimangalam, Puducheri Road, Manimangalam Post, Sriperumbudur, Kanchipuram District.
City	Chennai
State	Tamil Nadu
Pin	601301
Website	www.dce.edu.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Sivasubramanian S	044-71700800	7824817707	044-71700801	principal@dce.edu.in
Principal	Sivasubramanian S	044-71700800	7824817707	044-71700801	principal@dce.edu.in
Professor	Kalavathy R	044-24363321	9841826090	044-71700808	kalavathir.ece@dc.e.edu.in
Professor	Kalavathy R	044-24363321	9841826090	044-71700808	kalavathir.ece@dc.e.edu.in

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution

If it is a recognized minority institution	No
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Establishment Details

Date of establishment of the college	20-10-2001
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University to which the college is affiliated/ or which governs the college (if it is a constituent college)

State	University name	Document
Tamil Nadu	Anna University	View Document

Details of UGC recognition

Under Section	Date
2f of UGC	
12B of UGC	

Details of recognition/approval by statutory/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	10-04-2017	12	

Details of autonomy

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	Yes
If yes, has the College applied for availing the autonomous status?	No

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Dhanalakshmi College of Engineering Manimangalam, Puducheri Road, Manimangalam Post, Sriperumbudur, Kanchipuram District.	Semi-urban	13.28	47996

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Computer Science And Engineering	48	HSC	English	120	108
UG	BE,Electronics And Communication Engineering	48	HSC	English	180	125
UG	BE,Civil Engineering	48	HSC	English	60	23
UG	BE,Mechanical Engineering	48	HSC	English	120	110
UG	BE,Electrical And Electronics Engineering	48	HSC	English	60	31
PG	ME,Computer Science And Engineering	48	B.E. B.Tech.	English	18	1
PG	ME,Embedded Systems Technologies	48	B.E. B.Tech.	English	18	2
Doctoral (Ph.D)	PhD or DPhil,Electronics And Communication Engineering	48	M.E. M.Tech.	English	27	0
Doctoral (Ph.D)	PhD or DPhil,Physics	48	M.Sc. M.Phil.	English	31	0
Doctoral (Ph.D)	PhD or DPhil,Chemistry	48	M.Sc. M.Phil.	English	5	0

Position Details of Faculty & Staff in the College

Teaching Faculty													
	Professor				Associate Professor				Assistant Professor				
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total	
Sanctioned by the UGC /University State Government	27				36				165				
Recruited	23	4	0	27	23	13	0	36	80	85	0	165	
Yet to Recruit	0				0				0				
Sanctioned by the Management/Society or Other Authorized Bodies	27				36				165				
Recruited	23	4	0	27	23	13	0	36	80	85	0	165	
Yet to Recruit	0				0				0				

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				177
Recruited	96	81	0	177
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				177
Recruited	96	81	0	177
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				32
Recruited	29	3	0	32
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				32
Recruited	29	3	0	32
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	23	2	0	6	2	0	3	1	0	37
M.Phil.	0	0	0	0	0	0	11	27	0	38
PG	0	2	0	17	11	0	71	52	0	153

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
	1	0	0	1

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
Doctoral (Ph.D)	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0
Certificate	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0
UG	Male	270	6	0	0	276
	Female	121	0	0	0	121
	Others	0	0	0	0	0
PG	Male	3	0	0	0	3
	Female	0	0	0	0	0
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	33	22	50	41
	Female	18	9	13	14
	Others	0	0	0	0
ST	Male	1	0	0	0
	Female	1	0	0	0
	Others	0	0	0	0
OBC	Male	214	219	307	310
	Female	90	64	102	123
	Others	0	0	0	0
General	Male	28	34	35	39
	Female	12	15	19	28
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		397	363	526	555

3. Extended Profile

3.1 Programme

Number of courses offered by the institution across all programs during the last five years

Response : 425

Number of self-financed Programmes offered by college

Response : 8

Number of new programmes introduced in the college during the last five years

Response : 0

3.2 Student

Number of students year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2171	2573	2788	2746	2386

Number of seats earmarked for reserved category as per GOI/State Govt rule year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
468	468	585	624	546

Number of outgoing / final year students year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
587	666	608	410	360

Total number of outgoing / final year students

Response : 587

3.3 Academic

Number of teachers year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
223	238	224	213	168

Number of full time teachers year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
223	238	224	213	168

Number of sanctioned posts year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
223	238	224	213	168

Total experience of full-time teachers**Response : 1793****Number of teachers recognized as guides during the last five years****Response : 14****Number of full time teachers worked in the institution during the last 5 years****Response : 401****3.4 Institution****Total number of classrooms and seminar halls****Response : 67****Total Expenditure excluding salary year wise during the last five years (INR in Lakhs)**

2016-17	2015-16	2014-15	2013-14	2012-13
1692.34	1650.23	1652.74	1352.93	1617.44

Number of computers

Response : 1300

Unit cost of education including the salary component(INR in Lakhs)

Response : 5.3227

Unit cost of education excluding the salary component(INR in Lakhs)

Response : 2.7659

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4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1 The institution ensures effective curriculum delivery through a well planned and documented process

Response:

Dhanalakshmi College of Engineering (DCE) is affiliated to Anna University, Chennai, and follows the curriculum and syllabi prescribed by the University. In order to ensure outcome based learning and to strengthen the teaching learning process, the college has devised many strategies. They are mentioned hereunder:

Planning of academic activities is done well in advance and the calendar is framed in alignment with the schedules published by Anna University and distributed to all students and faculty members. Subject allotment to faculty members is based on proficiency matrix, experience and performance of students in previous years. The time table is framed with provision for Value Added Programmes, NPTEL, Club Activities, Tutorials, Library, Placement oriented training and Mentoring. Lesson plans are prepared with well-defined course outcomes, course notes, learning materials, laboratory manuals, course delivery methods like PPT etc., and are uploaded in the college website for reference.

Laboratory plans are prepared for each laboratory course as prescribed in the curriculum. Laboratory manuals are prepared for all the experiments in the plan and are provided to the students at the beginning of the semester. Viva voce questions for each experiment are included in the manual. Continuous assessment for laboratory work is done on the basis of timely submission of laboratory records, understanding of the experiment through oral questions and participation in performing the experiment.

Course delivery as per lesson plan and completion of syllabus is monitored by various formal and informal feedbacks. Class committees are formed for every section of every branch. They are conducted in the presence of Dean of Academics and the respective HoDs periodically. Students provide their feedback online on the progress of the course, issues in the learning process, and also, requirements for further action.

Periodic tests and model examinations are conducted as per the academic calendar. The pattern of setting the question papers for the internal tests is designed to facilitate the attainments of the course outcomes, for the various courses. Progress Reports are promptly dispatched to the parents to apprise them about their wards' performance.

The minutes of all academic committee meetings are documented and signed by the respective HoDs and Principal. All faculty members maintain a log book for each theory and laboratory course. The log book contains syllabus, time schedule of classes, attendance of students, internal test marks, assignment and tutorial marks. The log book is signed by the respective HoDs weekly once and signed by the Principal every fortnight.

Course files are prepared by the respective faculty members and maintained in the department for each

semester. Course file contains log book, lesson plan, notes of lesson, (lab manuals for laboratory course), question bank, previous year university question papers, analysis of internal tests conducted, sample answer sheets, assignments, corrective and preventive actions taken. All the documents including Internal Assessment and University results analyses are reviewed and signed by the respective HoDs and the Principal. These are audited by the Internal Audit Cell twice in a semester and presented for External Audit yearly.

1.1.2 Number of certificate/diploma program introduced during the last five years

Response: 17

1.1.2.1 Number of certificate/diploma programs introduced year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
10	02	0	0	05

File Description	Document
Details of the certificate/Diploma programs	View Document

1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years

Response: 0.62

1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
3	2	2	0	0

File Description	Document
Any additional information	View Document
Details of participation of teachers in various bodies	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years

Response: 24

1.2.1.1 How many new courses are introduced within the last five years

Response: 102

File Description	Document
Details of the new courses introduced	View Document

1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented**Response: 80**

1.2.2.1 Number of programs in which CBCS/ Elective course system implemented.

Response: 8

File Description	Document
Name of the programs in which CBCS is implemented	View Document

1.2.3 Average percentage of students enrolled in subject related Certificate/ Diploma programs/Add-on programs as against the total number of students during the last five years**Response: 23.1**

1.2.3.1 Number of students enrolled in subject related Certificate or Diploma or Add-on programs year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
931	686	428	422	364

File Description	Document
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	View Document

1.3 Curriculum Enrichment

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

Response:

The Institution follows Anna University curriculum which includes courses Environmental Science and Professional Ethics. The efforts created by the Institution to integrate cross cutting issues related to Gender, Climate Change, Environmental Education, Human Values and Professional Ethics into the curriculum are as follows:

1. Gender

Secularism and unity is ingrained in the Institution's culture which is evident in the communal harmony among the students from various faiths, ethnic, and socio - economic backgrounds. The Institution offers Co-education and equal opportunities for both girls as well as boys in terms of admissions, employment and training Programmes. Both genders are encouraged to work together in various curricular, co-curricular and sports activities. There is no discrimination in offering representative posts of various committees amongst girls and boys. The College encourages women faculty and female students to become members in all the committees. Women Empowerment Cell was framed to redress the grievances of the female students and women faculty to promote leadership qualities. A National level Conference was conducted in our campus on "Empowerment of Women in Research and Engineering" in September 2013, to ensure professional growth among women. Motivational Programmes for gender sensitization are also conducted by the Women Empowerment Cell which aims to emphasize women's rights in society.

2. Climate Change and Environmental Sustainability:

Anna University has prescribed Environmental Science and Engineering as one of the core courses for students of all branches to learn about environmental conditions, pollution, resource conservation, social issues, rain water harvesting, global warming etc.

A three-day International Conference on Environment, Climate Change, Adaptation and Future Energy (ICECAFE, October 20-22, 2016) was organized by the Institution in collaboration with India Meteorological Department. This was sponsored by the Ministry of Earth Sciences. The conference provided a platform to discuss advancements in thrust areas like Environment, Climate Change and Energy. Students enthusiastically participated in this event and gained environmental awareness. Field visit to the Water Treatment Plant of Metro Water was also organized for the students to acquire practical knowledge.

The Institution embarked on its inimitable venture of promoting environmental awareness by earmarking 2 acres of virgin-green land for the cultivation of 37 types of herbal plants in collaboration with Ashok Leyland Pvt. Ltd. and Yadham Oorey, an Agaram Foundation subsidiary. The college is also keen on maintaining environmental protection by rainwater harvesting, sapling plantation, solar energy harvesting, bio-gas plants and sewage treatment plant.

3. Human Values and Professional Ethics:

In addition to the course and contents of Anna University curriculum, the Institution creates awareness among students by providing various case studies to discuss the ethical issues related to engineering in the context of society. As per curriculum a course on "Total Quality Management" , "Human values and professional ethics" which focuses on quality in various organizations and ethical issues.

The Institution conducts various community development activities like Blood donation camp, Eye camp, Fitness medical camp, Dental camp, Ayurvedha Medical camp, Yoga camp, Cancer Awareness Programme, Health Awareness Programme through various clubs like NSS, Rotaract and YRC.

1.3.2 Number of valued added courses imparting transferable and life skills offered during the last five years

Response: 28

1.3.2.1 Number of value-added courses imparting transferable and life skills offered during the last five years

Response: 28

File Description	Document
Details of the value-added courses imparting transferable and life skills	View Document
Brochure or any other document relating to value added courses.	View Document
Any additional information	View Document

1.3.3 Percentage of students undertaking field projects / internships

Response: 42.28

1.3.3.1 Number of students undertaking field projects or internships

Response: 715

File Description	Document
List of students enrolled	View Document
Institutional data in prescribed format	View Document

1.4 Feedback System

1.4.1 Structured feedback on curriculum obtained from 1) Students 2) Teachers 3) Employers 4) Alumni 5) Parents For design and review of syllabus semester wise/ year wise
A.Any 4 of the above

B.Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above**Response:** A. Any 4 of the above

File Description	Document
Any additional information	View Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View Document

1.4.2 Feedback processes of the institution may be classified as follows:**A. Feedback collected, analysed and action taken and feedback available on website****B. Feedback collected, analysed and action has been taken****C. Feedback collected and analysed****D. Feedback collected****Response:** B. Feedback collected, analysed and action has been taken

File Description	Document
Any additional information	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average percentage of students from other States and Countries during the last five years

Response: 0.51

2.1.1.1 Number of students from other states and countries year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
18	6	12	9	18

File Description	Document
List of students (other states and countries)	View Document
Institutional data in prescribed format	View Document

2.1.2 Average Enrollment percentage (Average of last five years)

Response: 64.42

2.1.2.1 Number of students admitted year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
356	510	558	809	824

2.1.2.2 Number of sanctioned seats year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
756	756	996	1176	996

File Description	Document
Institutional data in prescribed format	View Document

2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

Response: 74.54

2.1.3.1 Number of actual students admitted from the reserved categories year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
177	372	391	580	522

File Description	Document
Institutional data in prescribed format	View Document

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

Response:

The various Heads of the Department along with the Deans analyze the registered students' cutoff marks, their background and interests. Bridge Courses are thereafter conducted before the commencement of regular classes. Various types of special bridge programmes are being formulated for different category of students such as

- Basic spoken English for Tamil medium and rural students
- Basic concepts of computer knowledge for biology students
- Basic fundamental concepts in mathematics, physics and chemistry for Students with average marks

All the above bridge courses are completed within a period of 3 weeks. The regular classes for the first year begin on the date of opening given by Anna University.

The task of mentoring and counseling 20 students is assigned to each faculty member to monitor their academic and other activities throughout their degree programme.

The special academic interests are identified by the counselors, who perpetually monitor the students' progress. The students are categorized based on the performance in the first unit test, as slow and advanced learners. All the students are given study materials and lecture notes. Slow learners are being given special attention in terms of additional remedial coaching, peer learning and discussion of

University questions along with the answers. Advanced learners are encouraged to participate in various co-curricular activities and competitions conducted within the campus and outside. To enhance learning experiences further, industry-related assignments are given to students for instilling a professional ambience. The top scorers are motivated and given membership in professional society chapters.

The faculty members also organize technical conferences, entrepreneurship development programmes, innovative project competitions, poster presentations and quiz competitions for the benefit of all enthusiastic and bright students.

2.2.2 Student - Full time teacher ratio

Response: 7.65

File Description	Document
Institutional data in prescribed format	View Document

2.2.3 Percentage of differently abled students (Divyangjan) on rolls

Response: 0

2.2.3.1 Number of differently abled students on rolls

File Description	Document
Institutional data in prescribed format	View Document

2.3 Teaching- Learning Process

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

Response:

In tune with the vision of our institution to create disciplined, conscientious and enterprising professionals, we have focused on the following student centric learning methodologies.

1. Experiential learning

Students are required to perform laboratory experiments to understand the basic theoretical concepts. Every laboratory course ends with a mini project exhibiting the concepts learnt in that laboratory course. Every department encourages students to organize symposia annually by way of which they learn team work, coordination capabilities, leadership qualities and life skills. Students are encouraged and motivated to participate in various technical events, seminars, symposia, workshops and innovative competitions

organized by other institutions also.

2. Participative learning

Students are encouraged to deliver lectures on technical topics and share their knowledge with others. We encourage peer learning of fast learners to help the slow learners while preparing for the continuous assessment tests. This enhances the performance of both the slow and fast learners greatly. Interactive learning sessions are being organized through guest lectures, seminars and workshops that include hands on training. Students are also encouraged to become the members of professional society chapters in order to interact with experts in the industry and corporate. Students participate in groups for the different competitions organized by professional society chapters. During July 2017, a team of SAE members participated in the Virtual BAJA contest and qualified for the final round of the automobile design using innovative technologies. Department associations also permit the student to develop his/ her organizational skills in order to improve their managerial capabilities.

3. Problem solving methodologies

Students are given aptitude skills training right from the second year onwards in order to improve their problem solving abilities. Tutorial classes are organized in the most meticulous fashion with a student staff ratio of 20:1 for helping every student in problem-oriented topics. Also, different assignment topics in every unit from the syllabus are followed to expose the students to a diverse range of problems. Assessment on logical and analytical skill sets are conducted every week for developing higher order thinking amongst students. Special coaching classes are also organized for students who aspire to take up state level and national level competitive examinations. Placement oriented tests like AMCAT, METTL and VERSANT that focus on numerical, analytical and verbal skills, are administered regularly to prepare students for industry placements.

2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

Response: 100

2.3.2.1 Number of teachers using ICT

Response: 221

File Description	Document
List of teachers (using ICT for teaching)	View Document
Provide link for webpage describing the " LMS/ Academic management system"	View Document

2.3.3 Ratio of students to mentor for academic and stress related issues

Response: 8.01

2.3.3.1 Number of mentors

Response: 211

File Description	Document
Year wise list of number of students, full time teachers and students to mentor ratio	View Document

2.3.4 Innovation and creativity in teaching-learning

Response:

The biggest challenge for any teacher is to capture and sustain the students' attention, in any learning session. For this to happen, classroom experience should be redefined and innovative ideas that make teaching methods more effective, should be implemented. The Institution endorses this statement completely by implementing it on a regular basis in all the classroom sessions.

Coupled with technology, newer approaches to Teaching and Learning such as Outcome-Based Learning (OBE), Student-Centered Learning (SCL), Problem-based learning (PBL), Case Study (CS) and Flipped Classroom Approach (FCA) that emerged recently, have been incorporated into the academic scheme of things in this institution. The supremacy of these approaches was that they empowered the students to be responsible for their own learning and helped them to become active learners. Getting hands-on experience was the best that had happened in the teaching-learning process over here.

Training sessions made use of gratified scenarios or forms of physically coordinated exercises to excite the young minds and capture their interest. This is a time-tested method to encourage creative contributions. By bringing aspects of creativity into engineering subjects, be it Mathematics, Physics, or Engineering Graphics, students are encouraged to indulge in out-of-the-box thinking. The freedom to explore is given to the students for coming out with projects and collaborations with external agencies are also allowed for completing projects. It was necessary to inculcate the industrial as well as research bent of mind at an early stage from the first semester itself. In this regard, the institution decided to incorporate projects into the prescribed curriculum in every semester and for every lab course. The faculty members devised projects that were worthy enough to be included into the project curriculum; thereafter, the students were apprised about the availability of project studies in all the semesters. The institution organizes open house exhibition every year and encourages all the students to actively participate and exhibit their innovative ideas.

Incorporation of audio-visual materials in classroom sessions is encouraged at DCE. Here, real world experiences are infused into the pedagogies to make teaching moments fresh and also enrich classroom learning.

All classrooms are video-enabled to deliver optimum effectiveness in teaching by making the students embrace new concepts through visual and auditory phenomena. NPTEL, Simulations, virtual Labs, PPTs and Charts are considerably used to reinforce traditional black board teaching. Working prototype models also are shown inside the class rooms. Role plays, simulation research, field visits, surveys and demonstrations are also incorporated in teaching methods.

DCE introduced 14 different clubs to infuse creative thinking, 2 periods are allotted on day order 6 of the

time table. These clubs aimed to bring about a transformation in the students' communication abilities in a very natural and stress-free manner. The Institution follows the maxim, 'the brain retains inputs permanently and processes them positively only when the learning process is enjoyable'.

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 100

File Description	Document
List of the faculty members authenticated by the Head of HEI	View Document
Year wise full time teachers and sanctioned posts for 5 years	View Document

2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

Response: 12.57

2.4.2.1 Number of full time teachers with Ph.D. year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
38	28	22	25	21

File Description

Document

List of number of full time teachers with PhD and number of full time teachers for 5 years

[View Document](#)

2.4.3 Teaching experience of full time teachers in number of years

Response: 8.11

File Description	Document
List of Teachers including their PAN, designation,dept and experience details	View Document

2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

Response: 1.06

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2	4	4	2	0

File Description	Document
e-copies of award letters (scanned or soft copy)	View Document
Institutional data in prescribed format	View Document

2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

Response: 3.66

2.4.5.1 Number of full time teachers from other states year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
6	8	7	8	9

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	View Document

2.5 Evaluation Process and Reforms

2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level

Response:

For effective implementation of the reforms advised by the University, the College has an exclusive examination cell headed by a Professor to conduct various examinations regularly and meticulously. The Institution implements reforms like REWRAP tests, NPTEL assignments and Laboratory assessments. The Department Academic Audit Committee was constituted for effective learning and assessment.

1. REWRAP Tests

In cognizance with CIE, the Institution conducts REWRAP (Reading Writing and Practice test) tests in addition to the prescribed unit tests and model examination. REWRAP tests are conducted in order to ensure comprehensive and thorough understanding of each and every topic in the syllabus. They are conducted after every unit is completed in the syllabus for every course. Due weightage is given in the continuous assessment procedure.

2. NPTEL Assessments and Tests

For certain NPTEL courses, students are asked to register and attend the course and also, take up assignments and examinations. This makes the students learn more from the courses provided by Higher Learning Institutions.

3. Laboratory Assessments

With regard to laboratory courses, continuous evaluation takes place during every experiment performed by the student along with viva-voce questions related to that particular concept. Students are permitted to do any experiment for practice beyond the lab periods. Model examinations are conducted for laboratory courses also.

4. Department Academic Audit Committee

In order to streamline and ensure transparency and uniformity in the CIE, every department in this Institution has separate Academic Audit Committee comprising the HoD and two senior faculty members. This committee scrutinizes all the question papers of REWRAP, Unit tests and model examinations for coverage of the syllabus, distribution of marks and effective mixing of theoretical and numerical questions.

This committee also scrutinizes the valued answer scripts for any mark- omissions for any question, uniformity in valuation and totaling of marks. In spite of this scrutiny, if any student has any grievance on evaluation, it will also be looked into and redressed immediately.

The tests and model examinations schedule is given in advance and conducted in a centralized manner, on the same fashion as that of a University examination, thus ensuring rigor and transparency.

Hence, Continuous Internal Evaluation (CIE) system at the institution fully adheres to the stipulations prescribed by Anna University and also provides enough opportunities for continuous learning.

2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety

Response:

- The college adopts the system specified by Anna University for internal assessment mark.

Performance in each course of study shall be evaluated based on

1. continuous internal assessment throughout the semester and
2. University examination at the end of the semester

Each course, both theory as well as practical (including project work & Viva-voce Examinations) is evaluated for a maximum of 100 marks. The project work is evaluated for a maximum of 200 marks.

For all theory and practical courses including project work, the continuous internal assessment will carry 20% marks while the End Semester University examination will carry 80% marks.

- The time tables for internal assessment tests are planned and published in the student handbook and displayed in notice boards well in advance.
- The seating arrangement for the examination of the day will be displayed on the examination notice board.
- Students are informed about calculation of internal marks in the class as soon as they join the college.
- For each subject two different sets of question papers are prepared by the concerned faculty in the prescribed format for all REWRAP tests, Unit tests and Model examinations. All the question papers are scrutinized by the respective Department Academic Audit Committee. (DAAC)
- The tests are conducted by a centralized examination cell; the invigilation duties are planned and executed by the examination cell.
- Detailed scheme of valuation and answer key is prepared by the faculty member prior to correcting the answer scripts.
- The evaluated answer booklets are immediately returned to the candidates for their scrutiny. They are also randomly scrutinized by Department Academic Audit Committee. The Internal marks obtained are displayed in the notice board for the students to ensure transparency in the internal assessment.
- The marks are collected by the examination cell coordinators and analyzed by the HoD, Dean (Academics) and Principal.
- The performance of the student is informed to the parents through progress reports. Parents of slow learners are informed about the special remedial classes needed for their ward during parent-teacher meetings organized twice in a semester.
- The performance of all the students in the end semester University examination are informed to the parents through SMS and are also advised to follow the Anna University portal for viewing their wards' results. Intimation is also given to them for the remedial coaching planned for the students who have failed in the examinations.

Thus the internal assessment process in the institution ensures adequate number of tests, assignments, and seminars evenly spread out during every semester. The assessment also comprises different types of tests namely the REWRAP test, unit test and model examinations, the duration of which varies from 45 minutes to 3 hours.

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

Response:

The Institute has a Department Academic Audit Committee which scrutinizes the question papers and answer scripts for correctness and uniformity. If any student has any grievance in the valuation process he / she can intimate his / her grievances either in person or in writing. The committee will sort out the

grievance within three days.

If the individual is not satisfied with the outcome of Department Academic Audit Committee, he can appeal with proper justification to the Principal.

If a candidate has any grievance regarding University examinations, the candidate submits an application through the HoD and it will be forwarded to the University for redressal.

The following measures are adopted for ensuring efficient grievance redressal mechanism for the benefit of the students.

1. If a student is absent for a test for genuine reasons, he/she is given a chance for writing retest at the discretion of the HoD.
2. If a student happens to be on duty on the day of the test or examination, he / she is given an opportunity to take up a retest on a later date with a different question paper.
3. If a student is not satisfied with his / her performance in any particular test or examination, he/ she is given an opportunity to take up a retest on a later date with a different question paper.
4. If a student could not attend a particular laboratory examination for genuine reasons, he / she is permitted to appear for the examination within the prescribed slot.

2.5.4 The institution adheres to the academic calendar for the conduct of CIE

Response:

The college adopts strictly adhere the system specified by Anna University.

Every year a student hand book is released for the purpose of informing the plan of action. It consists of information about different committees, rules and regulations of the Institution and Academic calendar.

A 90-day operating semester is vital for a pupil to appear for the semester examinations of Anna University. The curriculum and the syllabi is framed in such a way that in about 45 to 60 periods durations, the syllabus can be completed. If the number of regular working days is inadequate, Saturdays are converted to working days.

The Academic calendar consists of Reopening date, Number of working days, REWRAP dates, unit test dates, model examination dates, holiday announcements, parents teachers meetings dates, Project review dates and Class committee meeting information.

For example in the year 2017-18, odd semester, it consists of five REWRAPs tests, two unit tests and a model examination conducted for a course during the semester. Tests are conducted after the completion of each unit of a particular course. After completion of two units, unit tests are conducted. Finally, after completion of all five units, model examination will be conducted for any course.

- Lesson plan, notes on lesson and lab manuals are prepared meticulously and are uploaded in the Institution's website.
- The mark sheet for each test is communicated to the parents through SMS
- The proposed dates for the Fresher's Day, Sports Day, Cultural Day and vacations are also mentioned in the academic calendar.

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 on website and communicated to teachers and students

Response:

Mechanism of Communication

Program Educational Objectives and Programme outcomes for particular programmes are

1. Communicated in faculty meeting
2. Displayed in the departmental notice board
3. Displayed in college website
4. Published in Students Handbook
5. Published in Class work note book
6. Displayed in Record note book
7. Displayed in Laboratories
8. Displayed in Staff room
9. Displayed in HoD Room
10. Displayed in Class rooms
11. Communicated in class committee meeting
12. Communicated to alumni association

Course Outcomes are displayed in Lesson plan and they are disseminated to all students in the Institution's website at dce.edu.in.

File Description	Document
COs for all courses (exemplars from Glossary)	View Document
Any additional information	View Document

2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

Response:

Measurement of attainment of PO's, PSO's comprises of two methods.

1. Direct assessment tools
2. Indirect assessment tools

Direct assessment tools are

1. In semester evaluation- This includes REWRAP test, assignment, seminar presentation, online courses, and attendance.
2. Semester evaluation – This includes the performance in Continuous Assessment Test 1, Test 2 and Model examination.
3. End semester evaluation-This includes the performance in the University examination.

Indirect assessment tools includes

1. Graduate exit survey,
2. Course end survey
3. Co-curricular and Extracurricular activity of students

The different tools used in direct and indirect assessment tools are given below.

Direct tools:

Questions in the REWRAP test, continuous assessment test are framed in such a way to appropriately judge the course outcomes which in turn maps to Programme specific outcomes. It is also ensured that all course outcomes are covered in most of the questions. Students are sensitized to their level of understanding of a particular CO and encouraged to study the course keeping in view the CO, PO and PSO. Rubrics are used for the assessment of seminars, through which it is possible to assess the technical knowledge, hands-on skills, professional skills and attitude. The format of the Rubrics consisting of number of sub criteria and the descriptor for each sub criterion is analyzed to assess the students' performance. The overall average of the various criteria indicates his level of understanding. The faculty members help the students for improving upon their weaknesses. The data collected from placement office and student portfolios are analyzed for lifelong learning, team work, communication skills, society and environment.

Indirect tools:

Course exit survey is collected at the end of the course and the Graduate exit survey is collected at the end of the programme. Both of the above are analyzed statistically for the attainment of PO's. The attainment of course outcomes from direct and indirect tools contributing to a particular programme is considered in the ratio 80:20 for computing the attainment of programme outcome.

File Description	Document
Any additional information	View Document

2.6.3 Average pass percentage of Students

Response: 78.27

2.6.3.1 Total number of final year students who passed the university examination

Response: 587

2.6.3.2 Total number of final year students who appeared for the examination

Response: 750

File Description	Document
Institutional data in prescribed format	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

File Description	Document
Database of all currently enrolled students	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants for research projects sponsored by government/non government sources such as industry ,corporate houses, international bodies, endowment, chairs in the institution during the last five years

Response: 43.55

3.1.1.1 Total Grants for research projects sponsored by the government/non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
0	0.25	43.3	0	0

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by non-government	View Document

3.1.2 Percentage of teachers recognised as research guides at present

Response: 6.33

3.1.2.1 Number of teachers recognised as research guides

Response: 14

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

3.1.3 Average number of research projects per teacher funded by government and non government agencies during the last five years

Response: 0.03

3.1.3.1 Number of research projects funded by government and non-government agencies during the last five years

Response: 12

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations including incubation centre and other initiatives for creation and transfer of knowledge

Response:

Eco system for Innovations is an initiative for inspiring engineering students, to showcase their skills and talents by applying their Engineering knowledge in several fields to find solutions for various day-to-day problems. The following initiatives for creation and transfer of knowledge have been taken in the Institution during the last five years.

1. Research & Development

1.1 Academic Research

Anna University has recognized the Department of Electronics and Communication Engineering, Department of Physics and Department of Chemistry as Research Centers. In these departments candidates can register for their Ph. D. with Anna University and the recognized research supervisors can guide the scholars both full time and part time.

b. Research & Development Cell

A separate R&D cell has been created in this institution to promote research in the current technology and large investments have been made to provide infrastructure for research. A number of industries have partnered with this institution to set up specialized centres of research. This R&D cell is being represented by faculty members from every department.

The institution has provided world class infrastructure to the students. The institute has an extensive R&D cell spread over 15,000 Sq. ft with WIFI facility, Oracle lab, Robotics lab, Cisco Networking Academy, Toys clinic, DELL EMC Centre of Academic Excellence, Advanced Computing Technologies lab, Innovation Entrepreneurship Development Centre with an investment to the tune of Rs. 5 Crores.

The following are a few of the funded research projects completed recently:

- “Evolutionary Neuro-fuzzy Rainfall Prediction System”, a funded research project for a total amount of Rs. 13.09 Lakhs was sanctioned by **ISRO** on 11.07.2014 to Dr. Sowmya B, Professor, Department of Electronics and Communication Engineering
- “Drafting and Modeling using Creo” was sanctioned by **TNSCST**, with an amount of Rs 25,000 to Dr. Pradeep Kumar A R, Professor and Head, Department of Mechanical Engineering on 11.06.2016

c. Centres of Excellence

The college has established the following centres of excellence as a joint venture along with various industries:

1. CISCO Networking Academy
2. IBM Academy
3. EMC2 Centre of Excellence for Big Data Analytics
4. Centre for Server Virtualization with VMware
5. Drawing and Drafting Centre with AutoCAD
6. Wireless Networks Centre with NEXGTECH Wireless Private Limited
7. Lab VIEW Academy with National Instruments

The Value Added Courses that are offered to our students include PLC, Industrial Robotics, Design of IC Engines, Lab View, Java and Oracle.

2. Entrepreneur Development Cell (EDC)

This cell has been established with the objective of creating, fostering and promoting the spirit of entrepreneurship among the students. Various initiatives are undertaken for the promotion of Start-Ups, Internships, Webinars, Guest lectures, workshops and other technical competitions.

3. Open House Project Exhibition

Open House Project Exhibition is a flagship event of Dhanalakshmi College of Engineering that celebrates innovations and creativity of our students.

Open House Exhibitions were organized consecutively for the past three years from 2014 to 2017 and there was excellent participation from the students and the public. There were more than 1000 visitors every year.

3.2.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years

Response: 65

3.2.2.1 Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
26	11	17	7	4

File Description	Document
List of workshops/seminars during the last 5 years	View Document
Report of the event	View Document
Any additional information	View Document

3.3 Research Publications and Awards

3.3.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

Response: Yes

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

3.3.2 The institution provides incentives to teachers who receive state, national and international recognition/awards

Response: Yes

File Description	Document
List of Awardees and Award details	View Document
e- copies of the letters of awards	View Document

3.3.3 Number of Ph.D.s awarded per teacher during the last five years

Response: 1.57

3.3.3.1 How many Ph.Ds awarded within last five years

Response: 22

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
URL to the research page on HEI web site	View Document

3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years

Response: 0.08**3.3.4.1 Number of research papers in the Journals notified on UGC website during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
1	27	50	07	05

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document

3.3.5 Number of books and chapters in edited volumes/books published and papers in national/international conference proceedings per teacher during the last five years**Response: 0.47****3.3.5.1 Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
217	144	69	66	26

File Description	Document
List books and chapters in edited volumes / books published	View Document

3.4 Extension Activities**3.4.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years****Response:**

The College is well networked with its neighborhood community and promotes constant interaction which includes student participation and involvement. The college lends all support and encouragement to its students as is evident from the under mentioned projects that different student bodies undertook during each academic year to make them better citizens. The extension activities of the college are through NSS, Youth Red Cross Club, and Rotaract Club.

1. National Service Scheme

The NSS units of this College enable the students to understand the community in which they work. It enables the students to identify the needs and problems of the community and involve themselves in problem solving. The students utilized their knowledge in finding practical solutions to individual and community problems. The NSS camps pave way for the rural community to interface with students in order to create a social responsibility among the students.

NSS unit have conducted various programmes like Tree Plantation, Temple Cleaning, Health Awareness Programmes, Medical Camps, Consumer Awareness programmes at neighbouring villages. Road Safety Awareness programme was organized in the Keelkattalai-Thoraipakkam highway.

During the floods in 2015, our students and faculty members had contributed to flood relief services in Chennai and Cuddalore Districts through the NSS units.

2. Youth Red Cross Club

The Youth Red Cross Club aims to inspire, encourage and initiate at all times, all forms of humanitarian activities, so that human suffering can be minimized, alleviated and even prevented. It also contributes to create a more congenial climate for peace. The YRC club had organized many blood donation camps, school reach-out programmes, Eye checkup Camps, celebration of Geneva Convention day.

The YRC Club had conducted a rally on 10th September 2013, World day for prevention of suicide from Somangalam High School to the College Campus to create awareness among the public as well as Student Community for prevention of suicide attempts. About 1000 DCE students had participated in the rally. DCE-YRC Club organized a stress relief programme for the benefit of all the faculty members in the college on 16th August 2014. This programme was presented by Dr. Gomathi Karmegam, Anesthesia specialist, Government Hospital, Chennai.

3. Rotaract Club

The Rotaract Club develops professional and leadership skills among the students. The club emphasizes respect for the rights of others, promotes ethical values and the dignity of all useful occupations. It provides a platform for young people to address the needs and concerns of the community. Rotaract Club of DCE organizes Teachers' Day celebrations on 05th September every year. Faculty motivational programme was delivered by Mr. Ayyappan, Senior Scientist CSIR, Government of India on 23rd August 2014.

“Think Apt” is a mock recruit program for second, third, and final year students to motivate the students towards employment opportunities. This was conducted from 19th to 21st August 2014. Dr. Jayaprakash Narain, former Director, NITTTR, Chennai delivered a lecture on “Cognitive Method of Learning and Multiple Intelligence Teaching Methodology”.

“Fusion2k15” was also organized to share knowledge between school teachers and DCE faculty members.

3.4.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

Response: 24

3.4.2.1 Total number of awards and recognition received for extension activities from Government /recognised bodies year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
8	3	5	4	4

File Description	Document
e-copy of the award letters	View Document
Number of awards for extension activities in last 5 years	View Document

3.4.3 Number of extension and outreach programs conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc., during the last five years

Response: 50

3.4.3.1 Number of extension and outreach programs conducted in collaboration with industry,community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc.,year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
21	12	8	7	2

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach programs conducted with industry,community etc for the last five years	View Document
Any additional information	View Document

3.4.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

Response: 76.37

3.4.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2019	2276	1662	1621	1950

File Description	Document
Average percentage of students participating in extension activities with Govt. or NGO etc.	View Document
Any additional information	View Document
Report of the event	View Document

3.5 Collaboration

3.5.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc during the last five years

Response: 92

3.5.1.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
28	12	20	18	14

File Description	Document
Number of Collaborative activities for research, faculty etc.	View Document
Any additional information	View Document
Copies of collaboration	View Document

3.5.2 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 20

3.5.2.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2	3	12	3	0

File Description	Document
Details of functional MoUs with institutions of national, international importance,other universities etc. during the last five years	View Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching- learning. viz., classrooms, laboratories, computing equipment, etc.

Response:

1. Class Room facilities:

Sl. No.	Name of the Department	Total Number of Class Rooms with facilities	ICT	Capacity / Area in sq. m.	ICT Facilities
1	Electronics and Communication Engineering	11		1111	Skyworth 58E38 Inches LED TV in classrooms
2	Electrical and Electronics Engineering	6		578	-
3	Civil Engineering	6		495	Skyworth 58E38 Inches LED TV in all classrooms
4	Mechanical Engineering	8		792	Skyworth 58E38 Inches LED TV in classrooms
5	Computer Science and Engineering	7		588	Skyworth 58E38 Inches LED TV in classrooms
6	Science & Humanities	7		674	Skyworth 58E38 Inches LED TV in classrooms

Total available classroom area = 4238 sq. m

Desirable norms as prescribed by AICTE = 3168 sq. m

2. Laboratory Facilities:

Sl. No.	Name of the Department	Total Number of Laboratories	Area in sq. m	Major Equipment
1	Electronics and Communication Engineering	10	1280	Klyston Power supply, Klyston Power Fibre optic trainer, Advanced linear Analog IC Trainer, Linear IC tester,

				Land trainer, Amplitude modulation Ray Oscilloscope
2	Electrical and Electronics Engineering	5	964.6	Digital Storage Oscilloscope, IGBT Board, Cathode Ray Oscilloscope, SMPS, Shunt motor coupled with DC source, Graphical system design software, NI LabVIEW, FPGA based Embedded Monitoring system, robotic, AU power software.
3	Civil Engineering	7	1205.94	UTM of 100 Ton capacity, Rockwell apparatus, Kaplan turbine, Pelton wheel, Bee Consistometer, Direct shear test, Total Station, Prismatic compass. A collection of books and software, Licensed software for Drafting and Modeling.
4	Mechanical Engineering	13	3136.69	Centre Lathes, Gear shaper, Centralized Milling machine, Centerless grinding machine, Gear hobbing machine, Stepper motor, electrical loading and Data acquisition system, CMM, CNC Turning Machine, computer lab with 60 systems and LabVIEW, Analysis. (Pro E, ANSYS, AUTOCAD, SolidWorks)
5	Computer Science and Engineering	12	3366	Intel Pentium Core 2 Duo, 2 GB RAM and 160 GB Hard disk of 278 systems. DELL Workstation – 55 systems 8GB DDR2 RAM, 250 & 160 GB Hard disk, Intel Core 2 Duo, .2 GB RAM and 160 GB Hard disk of 100 systems. HP Workstation – 20 systems 8GB & 4GB DDR2 RAM, 250 & 160 GB Hard disk of 100 systems. HP Rack server – 2 systems 16 GB RAM, 1 TB HDD
6	Science & Humanities	3	618.43	Spectrophotometer, Flame-photometer, Interferometer, Spectrometer, Travelling microscope, Microscope, Tensile testing machine, Rockwell apparatus, Pelton wheel, Bee Consistometer, Direct shear test, Total Station, Prismatic compass. A collection of books and software, Licensed software for Drafting and Modeling.

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

Response:

The following table enumerates the various sports and games facility available in the institution.

1. Sports facilities

Sl. No.	Facility	Quantity	Capacity / Area in sq.m	Year of establishment	User
1	Basketball court	1	904.6	2005	
2	Volley ball court	2	825.52	2005	
3	400m track	2	24320	2009	
4	Carom board	5	20.32	2009	
5	Chess board	5	20.32	2009	
6	Yoga Hall	1	81.28	2009	
7	Ball Badminton court	1	730	2009	
8	Cricket ground	2	3900	2010	
9	Kabaddi Court	2	730	2010	
10	Gym Boys hostel	1	20.32	2011	
11	Football court	1	6500	2011	
12	Gym Girls hostel	1	20.32	2011	
13	Handball court	1	600	2011	
14	Weight lifting full set	2	20.32	2011	
15	Table tennis board	1	20.32	2012	
16	Kho-Kho court	1	600	2012	

2. Cultural facilities

An AC auditorium 400 sq .m., three seminar halls each of 80sq.m available for purpose of practice and performance of different cultural activities like dance, drama, music etc. The college band set comprises Drums Kit, Yamaha keyboard, Signature guitar.

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

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 67

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	View Document

4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

Response: 30.29

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
100	215	600	800	600

File Description	Document
Details of budget allocation, excluding salary during the last five years	View Document
Any additional information	View Document
Audited utilization statements	View Document

4.2 Library as a Learning Resource

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

Response:

At Dhanalakshmi College of Engineering, we realize the venerable and excellent position of the library in an educational institution. Faculty members from all engineering branches encourage students to look up details for assignment topics on a regular basis. Housed in an area of 1000 square metres, the library is automated using Integrated Library Management System (ILMS) Auto Lib 6.0 version and is equipped with RFID Theft Detection System. The library makes use of OPAC software. The library possesses 8865 titles and 35,803 volumes of books. It also subscribes to 6 popular newspapers. There are 115 open racks and glass cased stacks in the library. The Universal Decimal System is followed for stacking and arranging books. The library can easily accommodate 200 people at a time. Apart from reprographic facilities, the library hosts a reading area of 500 sq.m.

In accordance with changes in reading styles, E-journals are now preferred over the regular hard-bound versions. Springer is a leading global scientific, technical and medical portfolio, providing researchers in academia, scientific institutions and corporate R&D departments with quality content through innovative

information, products and services. Springer has one of the strongest STM and HSS eBook collections and archives, as well as a comprehensive range of hybrid and open access journals. There is a specific collection of IEEE, Springer and Wiley E-journals at the library.

Engineering books are 29,324 in number at the library and there is also an extensive collection of science and humanities books numbering to 6479. The library also has 88 hard copies of national journals along with 49 international journals. Altogether, DCE library subscribes to 137 journals.

4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resources for library enrichment

Response:

Name of the Book /Name of Manuscripts	Name of the Publisher	the Name of the author	Number of copies	Year of Publishing
Dianetics:	TheA New Publications	EraRon Hubbard.L	1	2009
Original Thesis				

4.2.3 Does the institution have the following:

- 1.e-journals**
- 2.e-ShodhSindhu**
- 3.Shodhganga Membership**
- 4.e-books**
- 5.Databases**

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: B. Any 3 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc.	View Document

4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

Response: 9.84

4.2.4.1 Annual expenditure for purchase of books and journals year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
8.05	7.44	6.32	15.91	11.46

File Description	Document
Audited statements of accounts	View Document
Any additional information	View Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document

4.2.5 Availability of remote access to e-resources of the library

Response: Yes

File Description	Document
Details of remote access to e-resources of the library	View Document

4.2.6 Percentage per day usage of library by teachers and students

Response: 11.3

4.2.6.1 Average number of teachers and students using library per day over last one year

Response: 216

File Description	Document
Details of library usage by teachers and students	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

IT Infrastructure

Our college campus networking uses advanced fiber optic cables connecting all the academic blocks.

Each department has separate computer labs. This institution has over 1300 personal computers with various operating systems.

1. Hardware facilities

Sl. No.	System Configuration Details	Number of Systems
1.	Intel Pentium Core 2 Duo , 2 GB RAM and 160 GB Hard disk	724
2.	DELL Workstation 8GB DDR2 RAM 250 & 160 GB Hard disk	140
3.	HP Workstation Server 4GB DDR2 RAM, 500 GB & 1TB Hard disk	43
4.	HP Intel core 2 duo 2GB RAM and 80 GB Hard	15
5.	Intel Pentium IV , 512MB & 1 GB RAM and 160 GB Hard disk	105
6.	Intel Pentium i5 , 8 GB RAM and 1 TB GB Hard disk	75
7.	HP Rack Server ,16GB DDR2 RAM ,1 TB Hard disk	10
8.	Thin Client (N-Computing Device)	140

2. Software facilities

Sl. No.	Name of the Department	Software Details
1.	Electronics and Communication Engineering	gcc, g++, Java, graphics, MATLAB, Pspice, NS 2.
2.	Electrical and Electronics Engineering	Labview - gcc, g++, Java, graphics
3.	Civil Engineering	AUTOCAD, STAAD Pro., Ubuntu 14.04 OS, Windows 7 64 bit OS
4.	Mechanical Engineering	Pro E, ANSYS, AUTOCAD
5.	Computer Science and Engineering	gcc, g++, MySQL, ArgoUML, Java, Graphics, Java 8, NetBeans 8.01, Windows 7 64 bit OS, Eclipse, VM Workstation, Ubuntu 14.04 OS

3. Networking facilities

Sl. No.	System Configuration Details	Number of Systems	Nat
1.	Wifi- En Genius indoor Access Point provides wireless connectivity	37	Annual providers

Details of access point

Sl.No	Name of the company	Bandwidth
1.	En Genius	50m

The date of and nature of updation of the Wi-Fi is listed below.

Year	Nature of updation
2012	16 Mbps Airtel
2013	25 Mbps Vodafone + 10 Mbps BSNL
2016	100 Mbps Airtel + 10 Mbps BSNL

File Description	Document
Any additional information	View Document

4.3.2 Student - Computer ratio

Response: 1.3

File Description	Document
Student - Computer ratio	View Document

4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

<5 MBPS

5-20 MBPS

20-35 MBPS

35-50 MBPS

Response: >=50 MBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	View Document

4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

Response: No

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

Response: 63.34

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
1155.3	990.9	923.33	800.7	1185.8

File Description	Document
Any additional information	View Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts.	View Document

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

Response:

SYSTEMS AND PROCEDURE

All infrastructure facilities once procured and installed are entered with the central stock register and thereafter to the particular department's stock register. A monitoring committee is established for maintenance and cleanliness of the campus. The Maintenance committee performs cyclical preventive maintenance on various campus systems. It also provides services required for life safety and other regulatory compliance issues. Maintenance is carried out annually for the immaculate and eco-friendly

upkeep of the buildings and the surroundings. The maintenance of laboratory equipment is all monitored every semester by the department lab assistants. Annual Maintenance Contract (AMC) is entered with supplier for maintaining and servicing of equipment and machinery.

A dedicated team of electricians, plumbers, carpenters and other personnel provide round the clock service to administrative and academic blocks including hostels. In every department, one of the staff members is assigned to oversee the laboratories and equipment. The member is responsible for safe and smooth maintenance of the equipment, and facilities. In addition, Block supervisor allotted for every department records the damages of facilities in the department. A log book is maintained to record complaints and problems if any. The complaints recorded are taken forward and appropriate actions are taken. The Heads of the Department supervise all the facilities.

CAMPUS MAINTENANCE COMMITTEE

The roles and responsibilities of the campus maintenance committee are as follows:

1. Monitoring the physical condition of the class rooms, laboratories and other buildings in the college.
2. Develop a list of tasks to be completed along with the time line
3. To maintain a complaint register and action taken
4. To arrange for annual maintenance of the common facilities like the internet, water cooler, RO plant etc.
5. To review regularly the status of the routine and minor repairs and renovation

File Description	Document
Any additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

Response: 56.65

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1615	1755	1724	1403	662

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	View Document
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	View Document

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

Response: 4.86

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
337	108	80	27	17

File Description	Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	View Document
Any additional information	View Document

5.1.3 Number of capability enhancement and development schemes –

- 1. For competitive examinations**
- 2. Career counselling**
- 3. Soft skill development**
- 4. Remedial coaching**
- 5. Language lab**
- 6. Bridge courses**
- 7. Yoga and meditation**
- 8. Personal Counselling**

A. 7 or more of the above**B. Any 6 of the above****C. Any 5 of the above****D. Any 4 of the above****Response:** A. 7 or more of the above

File Description	Document
Details of capability enhancement and development schemes	View Document

5.1.4 Average percentage of student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years**Response:** 20.12

5.1.4.1 Number of students benefited by guidance for competitive examinations and career counselling offered by the institution year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
575	709	552	367	320

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document

5.1.5 Average percentage of students benefited by Vocational Education and Training (VET) during

the last five years

Response: 0

5.1.5.1 Number of students attending VET year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
0	0	0	0	0

File Description	Document
Details of the students benifitted by VET	View Document

5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

Response: Yes

File Description	Document
Details of student grievances including sexual harassment and ragging cases	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document

5.2 Student Progression

5.2.1 Average percentage of placement of outgoing students during the last five years

Response: 89.37

5.2.1.1 Number of outgoing students placed year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
569	599	534	355	308

File Description	Document
Details of student placement during the last five years	View Document

5.2.2 Percentage of student progression to higher education (previous graduating batch)**Response:** 4.77

5.2.2.1 Number of outgoing students progressing to higher education

Response: 28

File Description	Document
Details of student progression to higher education	View Document
Any additional information	View Document

5.2.3 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: NET/SLET/GATE/ GMAT/CAT, GRE/ TOFEL/ Civil Services/State government examinations)**Response:** 60.71

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/SLET/GATE/GMAT/CAT, GRE/TOFEL/Civil Services/State government examinations) year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
9	56	9	7	6

5.2.3.2 Number of students who have appeared for the exams year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
14	96	22	7	15

File Description	Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document
Upload supporting data for the same	View Document

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) during the last five years.

Response: 2

5.3.1.1 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 wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
0	0	0	1	1

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	View Document
Any additional information	View Document

5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

Response:

Dhanalakshmi College of Engineering has always been a stickler for transparency in student-teacher interactions. This includes the active exchange of ideas for improvement from both faculty members as well as students. Academic issues stemming from students on the pedagogies followed are resolved within a short timeframe.

Class committees are represented by teachers offering the course and the student representatives. Academic issues in the teaching and evaluation process are represented in this committee and solved with immediate effect.

The students, apart from the normal classroom instruction and training, need to be exposed to vast changes and advancements in science and technology. Each branch of study has an association for this purpose. Each association has a President, Secretary, Treasurer and other office bearers who are elected by the students democratically.

The Association will organize Seminars, Symposia, Conferences and Workshops in this regard. Experts in the field are invited to interact with students and the faculty for delivering lectures on recent industrial trends. This would equip the students to conform to the demands of cutting edge technologies.

The following Associations are actively functioning in the college:

1. Association of Sciences and Humanities

2. Association of Electronics and Communication Engineers
3. Association of Electrical and Electronics Engineers
4. Association of Computer Science Engineers
5. Association of Mechanical Engineers
6. Association of Civil Engineers

Professional Society Chapters

International and National professional societies like IEEE, SAE, IETE and ISTE function for the benefit of the student community to expose them to developments in their domain by interacting with academicians, researchers and industry experts globally. Our Institution has the following professional society student chapters in which students are office bearers getting involved in all related activities.

IEEE Institution of Electrical and Electronics Engineers

IETE Institution of Electronics and Telecommunication Engineers

SAE Society of Automotive Engineers

ISTE Indian Society of Technical Education

Students' Clubs

To make the process of learning more lively and enjoyable, the college offers the following club activities and co-curricular activities. The students have the option to participate in various programmes and activities with varying experiences for their all round development.

1. English Literary Club
2. Tamil Literary Club
3. Youth Red Cross Club
4. Rotaract Club
5. National Social Service(NSS)
6. Inspire Club
7. Sports club
8. Robotics club
9. Cultural club
10. Humour club
11. Event Management club
12. Knowledge club
13. Yoga club
14. Entrepreneur Development club

Sports Committee

One of the functional committees formed under the governance of DCE, is the Sports committee comprising faculty members' representation from various departments and also student representatives

from each class. They are allowed to participate in the bi-monthly meetings organized for reviewing and planning, short term and long term activities.

Hostel Committee

Twice a month, hostel committee meetings are conducted to sort out grievances of the students with respect to the functioning of the Hostel Mess and other amenities. Separate hostel committee meetings are conducted for the girls' hostel. Faculty members intervene to provide solutions pertaining to discipline, hygiene and other relevant issues.

5.3.3 Average number of sports and cultural activities/ competitions organised at the institution level per year

Response: 814.4

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
832	975	805	460	1000

File Description	Document
Number of sports and cultural activities / competitions organised per year	View Document
Report of the event	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years

Response:

The Alumni Association of DCE has been in existence from 2005 but was registered vide number DCEALUMNI 510/2017. The Alumni Association has been growing in strength and has now around 3000 members. The office bearers of the Association are as follows.

President : Mr T Suresh Babu

Senior and Delivery Head, HP

Chennai

9962521482

Secretary : Mr S Jana

Managing Director-Spring Fields

Chennai

9884058834

Joint Secretary : Mr S Yuvaraj

Assistant Professor

Department of EEE

Dhanalakshmi College of Engineering

Treasurer : Ms K Dhanusha

9962812254

Vision:

To be a vital partner of DCE's success by having an informed, engaged and active alumni community

Mission:

To leverage the resources available among alumni for the benefit of the students

To take part actively in all the activities of the alma mater in order to raise the existing level to global standards

To effectively liaison with corporate and industries for the benefit of final year students

Contributions of Alumni

Alumni Association of our college meets every year to review the activities which include academic as well as non-academic matters. In academic matters, the alumni contribute significantly to the curriculum enrichment, revamping of teaching learning methodologies, content development for value added courses, prescribing hands on training in domains, organizing seminars, workshops and conferences. They are also deeply involved in non-academic activities like sports and cultural events wherein they organize cricket

matches, volleyball matches between the alumni of DCE and current students. The regular meetings are recorded and maintained for the transference of meaningful feedback to the Management.

Alumni interact with the respective HoDs and give them information regarding current trends and practices in the industries where they work, so that suitable improvements in the infrastructure facilities can be made in the Institution.

Alumni also interact with the final year students and guide them to prepare for campus interviews in core and IT companies. They also help in arranging seminars for key areas. Final year projects are also analyzed for relevance in their respective fields.

The alumni help the department to identify the industries for students to undergo in-plant training, arrange for internships, visits to the industry where they are employed, donate books to the department library and act as ambassadors of the college.

Alumni take part in various interactive sessions for providing guidance regarding higher studies, competitive exams and placement for juniors. They also provide feedback on programme outcomes.

Details of annual alumni meet

Date	Venue	No. of Alumni attended
27.04.13	DCE Campus	174
22.03.14	DCE Campus	163
15.03.15	DCE Campus	145
27.03.16	DCE Campus	112
12.03.17	Hotel Ambika Empire Vadapalani, Chennai	153

5.4.2 Alumni contribution during the last five years

<1 Lakh

1 Lakh - 3 Lakhs

3 Lakhs - 4 Lakhs

4 Lakhs - 5 Lakhs

Response: <1 Lakh

File Description	Document
Alumni association audited statements	View Document

5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

Response: 5

5.4.3.1 Number of Alumni Association /Chapters meetings held year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1	1	1	1	1

File Description	Document
Number of Alumni Association / Chapters meetings conducted during the last five years.	View Document
Any additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the institution

Response:

VISION

Dhanalakshmi College of Engineering is committed to provide highly disciplined, conscientious and enterprising professionals conforming to global standards through value based quality education and training.

MISSION

- To provide competent technical manpower capable of meeting the global requirements of the industry
- To contribute to the promotion of Academic Excellence in pursuit of Technical Education at different levels
- To train the student to sell his brawn and brain to the highest bidder but to never put a price tag on heart and soul

Dhanalakshmi College of Engineering is the brain child of Dr. V. P. Ramamurthi, Founder Chairman and Managing Trustee, an eminent academician, and a former Professor of Anna University. The Management has been striving hard to achieve its vision of building and developing professionals conforming to global standards through its well defined mission statements.

Nature of Governance

The Management strictly adheres to the recommendations of its Governing Council. Dr. B. Ilango, a renowned academician par excellence and a former Vice-Chancellor of Bharathiar University, is the Chairman of the Governing Council. The council comprises senior academicians, industry professionals and research consultants. The governing council meeting is convened twice a year and all aspects of academic and non-academic matters are discussed threadbare and decisions are taken to benefit all the stakeholders of the system. All the Deans, Directors and Heads of the Department also participate in the deliberations of the Governing Council meetings.

The decisions taken during the Governing Council meeting are properly documented, recorded and circulated to all concerned members and effectively implemented by the Principal through HoDs. There is an effective monitoring system executed by MIS in order to ensure a transparent, robust, objective and scalable process.

Major Plans for Dhanalakshmi College of Engineering in the near future as envisaged in GC meeting in 2015 are,

1. To start a PG programme in CAD/CAM (M.E. CAD/CAM) within the next two years

2. To obtain NBA accreditation for all eligible engineering Programmes in the current academic year
3. To go in for NAAC accreditation by 2017
4. To introduce more value-added courses according to the latest trends in the industrial sector immediately
5. To apply for funding to various agencies for research projects
6. To provide foreign language coaching to final year students by experts in the next academic year
7. To encourage the faculty members to acquire higher qualifications and the institute to provide all facilities for them
8. To establish Centers of Excellence in all engineering departments
9. To collaborate with industries for consultancy projects

Participation of Teachers in decision making bodies

All the Heads of the Department conduct faculty meetings every fortnight. The minutes of the meetings are communicated to the Principal who in turn consolidates all the suggestions and submits them to the Management for approval. Also, faculty members are involved in functional committees like

1. Discipline
2. Anti-ragging
3. Industry Institute Interaction Cell
4. Gender Sensitization Cell
5. Professional Society Chapter
6. Club activity
7. Entrepreneur Development Cell

The meetings of the above committees are scheduled regularly and they contribute to the decision-making process at all levels.

6.1.2 The institution practices decentralization and participative management

Response:

Dhanalakshmi College of Engineering has been practicing the devolution of power in every aspect of its functionality since the establishment of the Institution in the year 2001. The college has the following Departments/Cells.

1. Training and Placement Department
2. Institute Industry Interaction Cell
3. Examination Cell
4. Transport Department
5. Physical Education Department
6. Hostel Administration

Every department/cell plans for its activity by preparing a budget independently and execute the same without the intervention of the Principal/management.

Case Study:

The functioning of the Department of Training and Placement in this regard is a case in point. This department has the freedom and autonomy to decide the range of companies to be solicited for campus drives at DCE. The only obligation it has outside this autonomy is that the Management team has to be kept updated from time to time.

For the academic year 2016-17, the Training and Placement Department has taken independent decisions in conducting recruitments for more than 100 companies within the campus as well as outside. The approvals were given by the Director who keeps the Management team informed whenever necessary. Moreover, directives are given to the Career Development Cell for conducting industry-specific courses to augment the practical skills of the students. The Career Development Cell thereafter solicits suitable vendors for conducting industry-specific courses. After approval is given by the Director, such courses commence functioning for the benefit of the students. These courses are continuously monitored by the Training and Placement Department till their completion. Financial as well as strategic decisions are taken and signed by the Director for the successful completion of all training and placement ventures.

Two job fairs were also conducted within the campus under the aegis of the Training and Placement Department. The first job fair took place on 27th August 2016 and the second one happened on 18th February 2017. Around 60 companies had visited our campus for conducting recruitments after completing registration formalities online through the college website. The registration fees for the stalls were decided by the Department of Training and Placement. Companies had to first send their profiles to the Training and Placement Department for approval to conduct their recruitments at the institution.

The Department of Training and Placement also gets funds from the Management to upgrade web and hardware facilities to conduct placement tests. All courses have been streamlined effectively by including placement aptitude training across the semester syllabi for all the engineering branches. This was done at the behest of the Director of Placement. In compliance to this, quantitative, verbal and technical aptitude modules were introduced into the academic schedule. Business English Certification (BEC) courses of Cambridge University were also made mandatory for students with verbal prowess in this regard.

In all the points mentioned above, it must be noted that the initiative and the execution of the same was done by the Department of Training and Placement, independently. The various engineering departments had to work in tandem with the Department of Training and Placement for completing the tasks set by the Director.

6.2 Strategy Development and Deployment

6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

Response:

As an institution affiliated to a State-owned University, there is not much flexibility in the Curriculum that could be adopted for making the teaching learning process more interesting, meaningful and also industry-oriented. In order to bridge the gap prevailing in the system and also to enhance the career opportunities for students, the Governing Council suggested that awareness cum motivational programme could be

organized to enlighten the students on the various career options available to them. They were encouraged to select a particular value added programme that would aid in achieving their career path. For example, training required for competitive examinations like GATE, UPSC, GRE, TOEFL were meticulously planned and organized.

The following procedure is being adopted for smooth and effective conduct of the programme.

1. The gap in the curriculum, based on the technical subjects is identified and mapped between semesters
2. Experts from industry are invited for a thorough discussion on the relevant topics
3. Providing space for VAC within the framework of the timetable and the academic calendar is done
4. Organizing awareness programmes right from the beginning of the second year and opening the minds of students towards preparation for their future are planned
5. Counselling and mentoring students after identifying their strength, weakness, opportunities and threats are offered
6. Guidance to students for identifying suitable VAC that would enrich their knowledge towards the goals is organized
7. Short term as well as long term courses are prescribed based on the potential of each student
8. Organizations who have made a mark in their specific domain are identified and classes for those programmes are finalized

The various Value-added courses are tabulated below

List of Value Added Courses

Sl. No.	Name of the Course	Name of the organization
1.	Lab View CLAD, CLD	National Instruments
2.	AutoCAD	Caddam Technologies
3.	Hindi	International Language
4.	Cambridge Business English Certification (BEC)	Department of English
5.	GATE	T.I.M.E. Education
6.	UPSC	King Makers IAS
7.	Embedded Systems	EPR Lab
8.	PLC	Progyaan Learning
9.	Industrial Robotics	AGIIT

10.	CCNA	Credo System
11.	Java	360 Ripple System
12.	J2EE	360 Ripple System
13.	CREO	Caddam Technologies
14.	3Ds Max	Caddam Technologies
15.	Oracle	Green Technologies
16.	Advanced Survey using Total Station	Ladder Institute of Technology

9. Assessments of the outcome of the course are regularly monitored with the help of the internal faculty Coordinator

Sixteen courses have been successfully completed till date and many students have got a career, based on the VAC undergone, particularly Robotics, PLC and Embedded technologies.

File Description	Document
Any additional information	View Document

6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism

Response:

GOVERNING COUNCIL

1. Dr Ilango B **Chairman**

Former Vice-Chancellor

Bharathiar University

Coimbatore

2. Dr Ramamurthi V P **Vice - Chairman**

Founder and Managing trustee

Dhanalakshmi College of Engineering

Chennai

3. Dr Ponnavaikko M **Member**

Vice-Chancellor

Bharath University

Selaiyur, Chennai

4. Dr Kasthuri K **Member**

Former Professor of Anna University,

Dean, SSN College of Engineering,

Chennai

5. Dr Abdullah Khan M **Member**

Former Professor of Anna University,

Former professor Emeritus,

Department of EEE, BSAR University

Chennai

6. Dr Sankaranarayanan V **Member**

Former Professor of Anna University

Former Professor Emeritus,

Director – Projects,

BSAR University

Chennai

7. Dr Panneerselvam M A **Member**

Former Professor of Anna University

Dean, Tagore Engineering College

Chennai

8. Dr AnbuRathinavel **Member**

Dean, Nalanda Corporate University,

Intellect Software Solutions

Chennai

9. Mr SardarMahboob Jan A **Member**

Chief Engineer (Retd.), TNEB

Power System Consultant

Chennai

10. Mr Mohan H R **Member**

Chairman, IEEE

Computer Society of India

IEEE Professional Communication Society

Chennai

11. Mr Balan K S **Member**

CERI Centre, CSIR

Tharamani campus

Chennai

12. Prof Shanmugam G **Member**

Founder Principal

MepcoSchlenk Engineering College

Sivakasi

13. Mr Subramanyam K **Member**

TATA Institute of Fundamental Research

Mumbai

14. Mr Sridharan P K **Member**

Founder Director

Hexaware Technologies Ltd.

Chennai

15. Mr Gnanasekaran O C **Member**

Director

Paypal

Chennai

16. Mr Sachindran K **Member**

Product Line Manager

Infosys Ltd.

Chennai

17. Dr K L Shunmuganathan

Member Secretary

Dhanalakshmi College of Engineering

Chennai

FUNCTIONS OF VARIOUS BODIES

1. Anti-ragging Committee

Convener: Dr. SenthamilSelvan K Professor/ECE

Function:

1. The committee is responsible for overseeing anti-ragging measures and their implementation effectively.

2. Gender sensitization Committee

Convener: R Muthualagu Associate Professor/ ECE

1. Organize regular meetings in order to discuss issues and problems related to Gender Sensitization

3. Research Committee

Convener: Dr Kumar Director/ R&D

1. To motivate both faculty and students for paper publication in conferences and journals
2. To apply for funding from government and non-government agencies

4. Alumni Committee

Convener: Mr Murugesan M AP /CSE

1. Re-connect significantly more alumni through their participation in reunions, higher level of volunteerism etc.

5. Cultural Committee

Convener: Mr. Narasimha Prasad AP/ ECE

1. The committee shall be responsible for all inter and intra-collegiate cultural events in the college

6. Institute Industry Interaction Cell

Convener: Dr Rengaswamy R Professor/ MECH

1. Encouraging engineering professionals from the industry to visit the College and deliver lectures

SERVICE RULES

1. Appointing Authority

All appointments of faculty members and staff of the College shall be made based on a selection committee subject to the approval of the Governing Council.

2. Termination of Service/Resignation

- The appointing authority has the power to terminate the services of an employee through one month's notice.

3. Leave

- Staff are eligible for 12 days C.L in a calendar year

GRIEVANCE REDRESSEL MECHANISM

Functions of Students

1. For any grievance he/she can approach his mentor who would resolve the issue or forwarded to the concern HoD for immediate redressal

File Description	Document
Any additional information	View Document

6.2.3 Implementation of e-governance in areas of operation: 1. Planning and Development 2. Administration 3. Finance and Accounts 4. Student Admission and Support 5. Examination

A. All 5 of the above

B. Any 4 of the above

C. Any 3 of the above

D. Any 2 of the above

Response: B. Any 4 of the above

File Description	Document
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	View Document
ERP Document	View Document
Screen shots of user interfaces	View Document

6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

Response:

An Industry Institute Interaction Cell (IIIC) has been constituted as one of the functional committees. Based on the current global requirement and also our Honorable Prime Minister's vision on skill development and its initiatives, we had decided to establish a skill development lab.

Vision

DCE is to be the centre for Industry Institute collaboration to bridge the gap between the curriculum and the needs of the industry in order to produce industry-worthy engineers.

Mission

To develop creative and innovative technical skills among the engineering students by providing enough industrial exposure in the form of industrial visits, in-plant training, real-time projects and internships

Objectives

1. Promote creative thinking and efficient work culture
2. Enhance the employability of the students
3. Develop entrepreneurial capability
4. Incubation and execution of viable projects
5. Establish Student-Faculty-Industry Interaction
6. Convert innovations into patentable and marketable products

In order to improve the skill set of the students and to prepare them to be industry ready, the Coordinator has conducted the meeting on 20.04.2017 in the Department of Mechanical Engineering.

It was decided to establish a skill development laboratory consisting of home appliances in order to impart hands-on training for all the 3rd year students.

This suggestion was forwarded to the Governing Council and the Board of Management for approval and the establishment of the Skill Development Lab was completed within a period of one month.

It was also decided to include 2 periods in the regular timetable for the 3rd year of all branches and hence it becomes mandatory for all the students to undergo skill development training. This would enhance their opportunities for entrepreneurial development as well as placements.

It is clearly evident that this suggestion which emanated from the IIIC meeting was successfully implemented with the support of the Management.

6.3 Faculty Empowerment Strategies

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

Response:

1. All faculty members are being provided with provident fund facilities.
2. All family members of faculty are covered by medical insurance.
3. Sponsorship for Faculty members are being provided for attending Seminars, workshops, FDP, Conferences etc.
4. Faculty members are provided with on-duty facility for examination duty of the University outside the institution, attending to workshops or pursuing higher studies.
5. Festival gifts are given for all.
6. Free transport and subsidized mess charges are available for the benefit of the faculty members and staff
7. Incentives and cash awards for excellence in academics, course certifications, paper and book publications
8. Non-teaching staff members are provided with uniforms.
9. Agricultural produce from the campus are shared amongst faculty members and staff.
10. School tuition fees for wards of teaching and non-teaching staff members are given.

The number of beneficiaries of this provision for the past 5 years is given below.

Sl. No.	Academic Year	No. of beneficiaries
1	2012 – 2013	18
2	2013 – 2014	63
3	2014 – 2015	26
4	2015 – 2016	38
5	2016 – 2017	74

6.3.2 Average percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 19.01

6.3.2.1 Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
55	55	62	24	14

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc. during the last five years	View Document

6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years

Response: 5.2

6.3.3.1 Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
8	2	8	4	4

File Description	Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document

6.3.4 Average percentage of teachers attending professional development programmes viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programme during the last five years

Response: 44.66

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
30	40	175	156	70

File Description	Document
Details of teachers attending professional development programs during the last five years	View Document

6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

Response:

A format has been designed as per the guidelines of the UGC taking care to follow the standards applicable to Institutions like ours. Various bench marks are set depending on the cadre of the faculty. Every academic year, the process of performance appraisal takes place. Every member of faculty is directed to fill the prescribed form which consists of academic, research and administrative responsibilities. Each and every claim should be supported with relevant documents. These documents are submitted to a committee of experts comprising internal and external members. After the completion of the appraisal process, faculty members are categorized into three types as given below.

A – Good, needs to be encouraged

B – Fair, needs to show improvement

C – Not good. Counseled

The outcome of the meetings of the committee is submitted to the Management for appropriate and remedial actions. The HoI and HoD discuss with the individual faculty member about the ratings in the appraisal. The category “A” members are suitably rewarded, category “B” are given suggestions for improvement and category “C” members are counselled and monitored. The appraisal formats that have been designed are enclosed for reference.

Similarly non teaching staff members have a different format but the system of performance appraisal is the same.

The standards of the appraisal system are also being reviewed every year in order to set higher bench marks and all faculty and staff members are being informed accordingly. The management provides all support to the faculty members to enhance their performance year after year in order to meet the goals of the Institution.

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

Proper utilization of financial resources is planned at the beginning of every financial year. Accounts department takes care of the collection of tuition fees, salary distribution, tax payment and loan distribution, purchase orders for the laboratory equipment, teaching aids, furniture, facilities, and payment of maintenance bills. Every financial transaction is recorded. All procedures and dealings are computerized.

The accounts and procedures of the control of finance are carried out by the head of the accounts team on a day to day basis and annual audit is done by the statutory auditor. The audit of accounts and submission of income tax returns are being carried out regularly each year.

There are no audit objections since the institution follows a good system of internal controls like calling quotations, comparison of rates, preparation of purchase order etc. Approvals are obtained at every stage of such implementation and due verification of goods and services after delivery. No expenses are incurred without proper approval or sanction by the Head of the Institution or HoDs.

6.4.2 Funds / Grants received from non-government bodies, individuals, Philanthropists during the last five years (not covered in Criterion III)

Response: 0

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
0	0	0	0	0

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	View Document

6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

The Trust has provided initial funding during the formative years i.e. 2001-05 for the physical assets such as land, building, roads, and equipment for the various departments, furniture, water supply and sanitation, power supply, computers and networking etc. Over a period of time, as and when programmes were added, the additional infrastructure, required was also funded by the Trust.

As of now the major income to the college is by way of tuition fees collected from the students. The major expenditure is for the salary and maintenance of the infrastructure. The college is not charging any capitation fee.

The college has created enough infrastructure forecasting for more number of courses to be added in the immediate future. However the trend in engineering admissions is slowing down and hence, some of the resources of the institution are idle and unutilized. The resources are being outsourced for fund mobilization. M/s TCS, M/s Prometric have come forward to utilize these resources and pay for them.

6.5 Internal Quality Assurance System

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

Response:

One example of the best practice Institutionalized is the academic calendar follows a Six day order pattern in order to accommodate the following additional activities beyond the curriculum prescribed by Anna University.

1. Value added courses
2. Placement cum personality development courses
3. Club activities
4. Mentoring
5. Online courses

The above methodology not only helps all the students to get prepared for the future but also helps them to digress from monotony which aids them in the teaching learning process.

Another example of the best practice Institutionalized is that the quality of the student intake is enhanced by adopting students with high scores in their +2 marks irrespective of their family background and economical status. Around **one hundred** students are being offered full waiver of tuition fees, hostel fees, and mess and transport charges. Peer learning groups are formed with one top scorer, and three other slow learners, so that the academic capability of the entire batch of students is raised to a higher pedestal.

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

Response:

The College authorities have been reviewing the outcomes of its teaching process at periodic intervals and have been modified its policies and methodologies to suit the requirement of all its major stakeholders namely the students and faculty members. Reviews are conducted regularly based on the feedback given by students and faculty members.

Reform I: The continuous evaluation system prescribed by Anna University requires only **three** assessments throughout the semester and that too only for theory subjects. DCE has made it more continual with additional **five** continuous assessments for every theory subject, and the laboratory courses assessment are done based on the performance of each experiment along with viva-voce questions. This has made the teaching learning process more effective and meaningful.

Reform II: Online courses have been made mandatory, so that every student is expected to register for an online course every semester, and takes up the assignments and assessments at the end of the courses which are being monitored by mentors. Students are facilitated with a provision in the time table and all infrastructure requirements to undergo the course. Weightage based on the performance in the online courses are taken into account.

File Description	Document
Any additional information	View Document

6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

Response: 1.8

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1	2	2	2	2

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	View Document
IQAC link	View Document

6.5.4 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
2. Academic Administrative Audit (AAA) and initiation of follow up action
3. Participation in NIRF

4.ISO Certification**5.NBA or any other quality audit****A. Any 4 of the above****B. Any 3 of the above****C. Any 2 of the above****D. Any 1 of the above****Response:** B. Any 3 of the above

File Description	Document
Any additional information	View Document
Details of Quality assurance initiatives of the institution	View Document

6.5.5 Incremental improvements made during the preceding five years (in case of first cycle) Post accreditation quality initiatives (second and subsequent cycles)**Response:**

1) Appointment of highly qualified and experienced faculty members

The College has been continuously trying to upgrade the quality of its faculty members year after year and the number of Ph.D. faculty members available in the various departments are as given below:

Year	Number of Ph.D. Faculty Members				
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Total	22	22	43	60	53

2) Establishment of a R&D cell and appointment of a Director (R&D)

The college has established a R&D center housing various centers of excellence for inculcating the research mind sets among students and faculty members. The center has been growing over the past four years and the outcome in terms of publications has shown a steep growth as depicted below:

Year	Faculty members/Students Publications				
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017

Total	21	65	76	135	171
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3) Organizing faculty development programs, Seminars, Conferences, Workshops in various departments has shown an increasing trend.

Year	Number of FDPs, Conferences, Seminars, Work Shops				
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Total	6	4	11	12	14

4) Offering scholarships to deserving students with high academic credentials selected and given by NGO's like Agaram and Maatram foundations has increased over the previous years.

5) Open house exhibition being organized for showcasing the innovative and creative mindsets of school students, college students and general public. The number of registrations has been in the uptrend.

Year	Number of Participation in Open House Projects			
	2013-2014	2014-2015	2015-2016	2016-2017
Total	1016	1250	1660	2026

6) Establishment of five centers of excellence namely EMC2 Big Data Analytics, VM Ware, AUTOCADD, Embedded technologies and IoT for the benefit of students and faculty members.

7) University examination results have been consistently on the uptrend.

UNIVERSITY RESULTS FOR THE LAST FIVE YEARS

Year	UG (B.E/B.TECH)				
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Pass Percentage	84.41	79.65	70.32	71.66	88.09

Year	PG (M.E/M.TECH)
------	-----------------

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Pass Percentage	77.50	86.25	84.69	90.27	

8) Establishment of CDC, IIIC, skill development laboratories have enhanced the placement achievements of our students during the last five years.

PLACEMENT DETAILS

Year	2012-2013		2013-2014		2014-2015		2015-2016		2016-2017	
	Placed	%								
Total	308	42	355	63	534	82	599	94	569	97

9) The Institution has been continuously reviewing the curriculum gap and introducing appropriate value-added courses for the benefit of the students.

VALUE ADDED COURSES

Year	Number of Courses				
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Total	5	6	6	7	16

Concluding Remarks

All the quality enhancement initiatives in academic that has been analyzed and implemented has started in the incremental growth shown in the University examination results including University ranks, placement achievements of students and their carrier prospects. For the faculty members DCE has yielded good publications and conduct of number of professionally oriented programmes including workshops and FDPs. The college has also achieved sufficient progress in all its co-curricular and extra-curricular activities. Hence it can be seen that DCE is poised towards growth in academics and non-academic activities benefiting all its stake holders.

File Description	Document
Any additional information	View Document

NAAc

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

Response: 15

7.1.1.1 Number of gender equity promotion programs organized by the institution year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2	4	2	3	4

File Description	Document
Report of the event	View Document
List of gender equity promotion programs organized by the institution	View Document
Any additional information	View Document

7.1.2

1. Institution shows gender sensitivity in providing facilities such as:

- 1. Safety and Security
- 2. Counselling
- 3. Common Room

Response:

Facilities provided for the safety and security of women

1. Establishment of gender sensitization cell whose objectives are to create awareness among both the genders regarding the existing rules and regulations, types of harassment and punishment etc.
2. Hosting in the website the details of the members in the cell also ensures transparency of the system.
3. The seating arrangement in the bus, class room, dining hall are earmarked for girl students and lady faculty members.
4. Separate ladies hostel with all essential requirements are being provided and is housed right in front of the security cabin at the gate.
5. Providing transport facilities for all inmates of the ladies hostel in case of outing etc
6. Separate medical room facility with visiting lady doctor and 24 hrs nursing service.
7. Girl students participating in sports and cultural or any co-curricular activity outside the college are

being accompanied by lady staff members and physical directress.

8. In addition to the mentorship by faculty members, professional counselors visit the campus once in a week to counsel the students who have been identified.
9. Every floor in each of the seven buildings has separate toilets for men and women.
10. Common room facilities are available in every departmental block.
11. Efforts are taken to recruit teaching and non-teaching staff members based on their gender to suit the proportion among the students.
12. In various social activities such as NSS, YRC etc., girl students are also selected proportionately.

Gender Sensitization Cell

With regard to the Supreme Court Judgment and guidelines issued in 1997 to provide for the effective enforcement of the basic human right of gender equality and guarantee against sexual harassment and abuse, more particularly against sexual harassment at work places, the University Grants Commission (UGC) has issued circulars since 1998, to all the universities of self-financing colleges, advising them to establish a permanent cell and a committee and to develop guidelines to combat sexual harassment, violence against women and ragging at the college.

Gender equity is achieved when people of all genders are able to access and enjoy the same rewards, resources and opportunities. Research has shown that for a number of reasons women often experience barriers or challenges in accessing these same rewards, resources and opportunities in employment. Our College is committed to provide specific support programs to address and remove these barriers. Several external trainers are brought in to expose students to emphasize on Project Based Learning. This exposes the students to event management and networking thereby, enabling Leadership Development. Beyond syllabus learning is encouraged through workshops, conferences, symposia and guest lectures.

7.1.3 Alternate Energy initiatives such as:

1. Percentage of annual power requirement of the Institution met by the renewable energy sources

Response: 6.98

7.1.3.1 Annual power requirement met by the renewable energy sources (in KWH)

Response: 360000

7.1.3.2 Total annual power requirement (in KWH)

Response: 5160000

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	View Document

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 29.86

7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 25800

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 86400

File Description	Document
Details of lighting power requirements met through LED bulbs	View Document

7.1.5 Waste Management steps including:

- **Solid waste management**
- **Liquid waste management**
- **E-waste management**

Response:

- Solid waste management
- Liquid waste management
- E-waste management

Solid Waste Management

We are using the vegetable waste from the canteen to produce vegetable waste manure. We are using this Manure for our vegetable garden where we get greens, snake gourd, bitter gourd and corn etc.

Liquid Waste Management

We have a waste water recycling plant (Sewage Treatment Plant - STP) inside the campus and thereby the recycled water is utilized for the vegetable plantations raised over 20 acres.

E-waste Management

The computers that were found in-operative are being collected and stored in a separate place. We get vendors who are able to take this scrap items (E-waste) for a price and they substitute with new item as per the requirement of the college computer labs. The e-waste generated is given to the authorized dealers who purchase the scrap and reuse the useful components. Apart from this, the electronic and electrical instruments under repair are given to the students during the lab sessions to dismantle and reassemble,

which helps application oriented learning. Guest lectures on hazardous management of electronic wastes are arranged. Newspaper cuttings of hazards of e-wastes are also frequently displayed in the Notice Boards.

Efforts for Carbon Neutrality

The net zero carbon foot print is achieved in the campus mainly through planting trees and steps are taken to conserve energy. The college is a beautiful serene campus full of greenery which improves the aesthetics, reduces global warming and green house effects. They provide shade in summer and act as wind breakers in winter season. It minimizes the use of air conditioners, fans and heaters. Trees are effective cleansers and remove pollutants from air and soil, thus minimizing the carbon footprint and around 1250 plants have been planted in the DCE campus so far.

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

Rainwater harvesting is a way to capture the rainwater at the time of downpour, store that water above the ground or charge the underground water and use it later. As the groundwater resources are depleting, the rainwater harvesting is the only way to solve the water problem. Every block in our College has rainwater harvesting facility. Rainwater harvesting will not only be helpful to meet the demand of water supply but also be helpful to improve the quantity and quality of water.

7.1.7 Green Practices

- **Students, staff using**
 - a) **Bicycles**
 - b) **Public Transport**
 - c) **Pedestrian friendly roads**
- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

Response:

Students, staff using

a) Bicycles

Our college provides Bi-cycles for the students and faculty members to use within the college premises.

b) Public Transport

Our college provides transport facilities for all students and faculty members on different routes covering more than 50 kms in all directions.

c) Pedestrian Friendly Roads

Our college provides pedestrian friendly road facilities for students and faculty members for safe and accessible transportation.

- **Plastic free campus**

Our college campus is plastic free and eco friendly.

- **Paperless office**

Our college faculty members and students use only e-mails for circulars and for other communications, thus reducing time and expenses for academic and other processes.

- **Green landscaping with trees and plants**

The institution is located in a sprawling campus with greenery in and around the campus. The institution takes lots of efforts to monitor the up-keep and maintenance of the campus.

- Personnel have been engaged to maintain the trees and flower plants.
- The institution has initiated a Go Green Project in association with Ashok Leyland.
- The institution has different associations like NSS and YRC etc. which organize tree plantation internally and externally from time to time on special occasions.
- Recycled water is used for maintaining green campus.
- Dried leaves are used as mulch.
- The college has ensured reduction of carbon emission by installing solar panels on the roof top of each block and Solar Water Heaters in the Hostels and Canteen.
- The institution regularly monitors and maintains the sanitary process, which keeps the environment clean and healthy.
- The institution has Reverse Osmosis plant for the supply of pure drinking water to each department block, canteen and hostels.
- Noise free Diesel Generator sets are located in a separate power house provided with enclosures to eliminate the noise pollution.
- The college management encourages students to utilize the bicycles after the college working hours.
- The college has a separate public transport system for commuting the parents and visitors to the campus.
- The college has separate pavements on either side of all the passages and roads which are pedestrian friendly.
- The college does not promote the usage of plastic in day to day activities and strives to ensure a plastic free campus
- The college encourages the staff to use e-mails and cloud storage to do away with the practice of using papers for printout.

7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

Response: 18.3

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
327.88	309.75	349.19	303.78	158.14

File Description	Document
Details of expenditure on green initiatives and waste management during the last five years	View Document

7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

1. Physical facilities
2. Provision for lift
3. Ramp / Rails
4. Braille Software/facilities
5. Rest Rooms
6. Scribes for examination
7. Special skill development for differently abled students
8. Any other similar facility (Specify)

A. 7 and more of the above

B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

Response: D. At least 2 of the above

File Description	Document
Resources available in the institution for Divyangjan	View Document
Any additional information	View Document

7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

Response: 19

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
4	4	4	4	3

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document
Any additional information	View Document

7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

Response: 38

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
11	11	10	4	2

File Description	Document
Report of the event	View Document
Details of initiatives taken to engage with local community during the last five years	View Document

7.1.12

Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

Response: Yes

File Description	Document
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	View Document

7.1.13 Display of core values in the institution and on its website

Response: Yes

File Description	Document
Any additional information	View Document
Provide URL of website that displays core values	View Document

7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations

Response: Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	View Document
Any additional information	View Document

7.1.15 The institution offers a course on Human Values and professional ethics

Response: Yes

File Description	Document
Any additional information	View Document

7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions

Response: Yes

File Description	Document
Any additional information	View Document

7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal

harmony and social cohesion as well as for observance of fundamental duties during the last five years

Response: 32

File Description	Document
List of activities conducted for promotion of universal values	View Document

7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities

Response:

Sl. No.	Great Indian Personality Name	Date of Birth/ Death Anniversary
1	Mahatma Gandhi	October 2
2	Dr. Radhakrishnan	September 5
3	Dr. Jawarhalal Nehru	November 14
4	Thiru.Swami Vivekanandha	January 12
5	Dr. A. P. J. Abdul Kalam	October 15

7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions

Response:

Efforts of the Institution towards inculcation of human values and professional ethics in students, faculty and society

Human values are necessary in today's society and the business world also. These values are the features that guide people to take into account the human element in any kind of interaction. They have the effect of bonding, comforting and creating serenity.

DCE encourages the inculcation of the following human values:

- Brotherhood, friendship, empathy, compassion, and love
- Openness, acceptance, recognition, and appreciation
- Honesty, fairness, loyalty, and solidarity
- Civility, respect, and consideration

The functioning of the basic values mentioned above enables every faculty member and student to realize and maintain human values for establishing peaceful relationships. The same understanding is spread across the entire institution's hierarchy. Truly, to respect someone, one must be able to appreciate some of his/her human qualities. The institution ensures that respect and equality are accorded to everyone, from the janitor to the Principal. This has been judiciously maintained without any deviation.

Cooperation: It is the procedure to work jointly to attain some goal. DCE students and faculty members work together in a spirit of mutual cooperation for the attainment of any worthwhile goal, academic or social.

Honesty: Honesty is a very vital human value. Teaching staff, non-teaching staff and students are encouraged to always speak out the truth and maintain the highest degree of integrity.

Compassion: The presence of compassion in human life is an important source of positive energy. DCE students are often tutored on the virtues of human compassion in many motivational lectures and seminars.

Respect: Respect is a feeling of deep esteem for someone. Students are encouraged to respect each other irrespective of family background, economic standing and abilities.

Trust: Trust can be understood in many ways, but finally it comes down to reliability and truth. Without trust, the world simply would not function. Hence the institution fosters a sense of trust for the smooth functioning of academic processes.

Charity: Dhanalakshmi College of Engineering has always been at the forefront of inculcating human values in the form of charity too. DCE had contributed a lot towards the Chennai flood relief measures (Dec. 2015) in cash as well as in kind.

7.2 Best Practices

7.2.1 Describe at least two institutional best practices (as per NAAC Format)

Response:

1. Title of the practice: PLACEMENT ORIENTATION

2. Objectives of the Practice

At Dhanalakshmi College of Engineering, students are trained from the first year onwards till they take placement tests in their final year. For the first year students, 3 sessions per week for each class/branch have been allotted for placement training. This has been done for exposing the students to the desirability of being aware of the job market challenges prevalent in the industry today.

3. The Context

Our college could have stuck to the age-old academic path/syllabus in preparing the students for the Anna University Communication and Soft skills lab exam but the present students' mindset and existing placement scenario indicated a grim picture that necessitated the creation of a group of students who were adept at cracking difficult placement tests such as AMCAT.

The tabular information mentioned below pertains to the previous academic year

Selection Process followed for Recruitments by Major Companies

Sl. No.	Company Name	Round 1	Round 2	Round 3
1	Kaar Technologies	Aptitude/ Technical	Group discussion	Technical HR
2	EasyECom	Technical	Coding	-
3	HTC Global Services	Technical	Technical	HR
4	Urjanet	Technical	Coding	-
5	NTT Data	Aptitude	Technical	HR
6	Sutherland Global Services	Group Discussion	Communication skills	-
7	Virtusa Polaris	Technical	Technical	HR
8	IBM	Technical	HR	-

4.The Practice

The teaching methodology followed for the first semester theory paper Technical English-I has been extensively fine-tuned by DCE Placement department to make it aptitude –oriented rather than theory-oriented.

Even 1st year and 2nd year students would have to bring out technical projects worthy of consideration by the industrial sector.

Communication skills lab sessions were oriented towards placement skills training sessions and students from all branches from their first year to final year, were actively encouraged to take up the Cambridge University certified Business English Certification.

The institution invests a lot of time and resources in training the students towards AMCAT, Techgig, Guvi and Mettl.

5.Evidence of Success

Every academic input would be tempered with industrial orientation, be it in the form of technical certifications or competence in verbal aptitude. In fact, placements improved when the students were trained for AMCAT; this was evident when the final year students were trained for AMCAT and other placement tests.

Placement Details for Effectiveness of the Practice

Academic Year	Total Strength	Placed Students Strength	Percentage of Placements
2012 - 2013	360	308	85.5
2013 - 2014	410	355	86.6
2014 - 2015	608	534	87.8
2015 - 2016	666	599	90.0
2016 - 2017	587	569	97.0

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6. Problems Encountered and Resources Required

Theoretical teaching was also reduced to the extent that classroom sessions became demonstrations of industrial application. Then came the problem of catering to the needs of academically backward students; because, when everything becomes industry oriented, the individual's learning preferences get lost in the enthusiastic sway towards a placement-oriented syllabus.

In terms of resources, industrial experts had to be invited from outside for training the students on latest technologies.

File Description	Document
Any additional information	View Document

7.3 Institutional Distinctiveness

7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

Response:

Entrepreneurial Development

The objectives of entrepreneurial development at Dhanalakshmi College of Engineering are to foster an innovative spirit in the mindset of the students and also to encourage professional ventures amongst faculty members and students.

The main challenge was in the fact that students needed to be encouraged constantly about other alternatives to full-time company employment. Many students did not possess the awareness for stepping into independent ventures. Hence the institution conducted programmes to raise the awareness level for entrepreneurial ventures.

List of programmes organized during the last 5 years....

In this regard, the Mechanical Engineering Department of DCE conducted an entrepreneurship programme in collaboration with Nation Small Industries Corporation (NSIC) on the 23rd of July 2015, for the benefit of students interested in the Small Scale Industry sector. The students were given tips and web resources for right orientation towards small scale start-ups.

National Entrepreneurial Network has been active at DCE campus for almost a decade now since its inception in 2007. The unique approach of a classroom-practical combine, facilitated by dedicated personnel from consulting and education teams, has endeared NEN to students. One of the biggest tasks an entrepreneur faces is getting access to funds for financing various aspects of the venture – start up, expansion, operational cost and more..

As an entrepreneur, there will be trials, successes and failures; this is often due to lack of experience or support. Having the right outlook and a good mentor will make all the difference. A mentor works together with entrepreneurs to encourage and guide them to attain their objective.

Some of the alumni-entrepreneurs who decided to strike out distinctive paths of their own are given below.

S.No.	Batch	Name of the student	Department	Mobile Num
	2001-2005	Ajeeth.M	ECE	9500006395
2.	2002-2006	Santhosh Chandrasekar	EEE	9884562128
3.	2002-2006	Kumaran.K	ECE	9841218472
4.	2004-2007	S.Jana	ECE	9884058834
5.	2004-2007	Suresh	ECE	9962521482

6.	2004-2008	Gokulakrishnan R	ECE	9884751595
7.	2004-2008	Prabhu	EEE	9994211881
8.	2006-2010	Nirmal Kumar	CSE	7200694667
9.	2006-2010	Sathish D	ECE	9042400370
10.	2006-2010	Arun S	ECE	9790910515
11.	2006-2010	Muthumanickam	ECE	9486601919
12.	2006-2010	Olimathan R	ECE	9884663961
13.	2006-2010	Sathish D	ECE	9042400370
14.	2006-2010	Vigneshrajan T	EEE	98416 0627
15.	2007-2011	Karthick	EEE	9886080539
16.	2007-2011	Raj Kumar	EEE	9842480065
17.	2008-2012	Imithyas	EEE	9789804577
18.	2008-2012	Srinivasan	EEE	9962619191
19.	2008-2012	S.Manikandan	ECE	9094662439
20.	2008-2012	S.Manikandan	ECE	9094662439
21.	2009-2013	Anand Viswanath B	CSE	9994510166
22.	2009-2013	Govardhan P	CSE	9994409244
23.	2009-2013	Kanagaraja B	EEE	8939242121
24.	2010-2014	Ramachandran R	ECE	9788661122
25.	2011-2015	Kaviarasu S	Mech	9677119373
26.	2011-2015	Anbazhagan S	CIVIL	9884256749
27.	2011-2015	Kishore Kumar.M	IT	9790766950
28.	2012-2016	Rajeshkumar S	EEE	9543926400
29.	2012-2016	Shafiullah H	CIVIL	9791628665

The entrepreneurial spirit of DCE is reflected in the ventures of the above-mentioned list of entrepreneurs. These entrepreneurs are engaged in business initiatives ranging from Environmental engineering to Restaurants and FMCG units. This is being continued with equal fervor at present and will certainly extend greatly into the future also.

5. CONCLUSION

Additional Information :

Every meritorious engineering student, is prompted to obtain the Business English Certification (BEC), awarded by Cambridge University U.K. Till date, 31 students have cleared this exam with 12 students scoring meritorious grades. Second year students are specially trained on Business English for improving their employability levels.

The library boasts of over 31,000 technical, non-technical books, hundreds of international and national journals, newspapers, and periodicals. Adopting RFID technology, the library comes with a 50-seater digital library.

DCE Centre of Excellence for Research and Development promotes partnerships between students and business organizations in research, design, product development in a plug-and-play environment of 50,000 sq. ft.

Responding to the explosion of demand for professionals in data sciences, DCE has set up Big Data Lab to facilitate research in Big Data and Analytics.

The academy makes sophisticated technology in networking available for students using data generated from Cisco devices such as routers, switches, and access points.

In association with National Instruments (NI), DCE has established an academy primarily to train engineers in NI's LabVIEW, an industry-leading visual programming environment, used for advanced analysis, data visualization and virtual instrumentation.

The Online Centre has 275 high end computers, and a database of over 30,000 test questions related to various disciplines for practice.

Open House Project Exhibition is the flagship event of our college that celebrates innovation, creativity, and cross pollination of ideas of our students. This 3-day open-to-all event gives a glimpse of student projects to the public.

Concluding Remarks :

It's been a very enriching learning curve for DCE since its inception in 2001. The Institution has always emulated the best procedures from all reliable sources earnestly. We first implement on a trial and error basis any new procedure, be it technical, administrative or academic. Thereafter, the outcomes are analyzed and if the positive outweighs the negative, the procedure/practice is immediately adopted. There have been setbacks in certain areas but we believe that setbacks are the surest and fastest way to rapid progress if they are acknowledged and acted upon for improvement without delay.

DCE envisages prioritizing research and sending quality research proposals for funding to various governmental and non-governmental agencies. With the expertise available in the Institution, more industries are to be approached for collaborative research and consultancy.

In order to have flexibility in curriculum, innovations like integrated and interdisciplinary programmes, the Institution aims to get academic autonomy in the next five years and later be upgraded as a Deemed-to-be University.

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