



POST ACCREDITATION INITIATIVES

The first Cycle of accreditation of Dr.N.G.P. institute of Technology, Coimbatore was carried out in December 2014. The Peer Team visited the Institution on 8-10 December 2014. The Peer Team made recommendations for the Quality Enhancement of the Institution and identified some areas where improvement could be made. In addition to this, Dr.N.G.P. IT took several initiatives to contemporize the Institution. The following are the action taken on the NAAC peer review recommendations and other major initiatives taken post accreditation.

Action taken on the NAAC peer team recommendations

1. Curriculum Aspects:

- **Academic Flexibility – Academic Flexibility is limited as the Institution follows Anna University syllabus.**

New Electives; certificate course; life skill course; vocational course are offered frequently.

Year	Certificate Course	Life skill course	Vocational Course
2019 – 2020	134	32	27
2018-2019	95	30	19
2017-2018	81	16	12

Number of Elective courses offered

Year	Number of elective course offered
2019 – 2020	230
2018 -2019	223

- **Feedback System; Curricular Planning and Implementation**

Few senior professors are part of BOS and contribute to the design and development of curriculum

Feedback Mechanism as a measure of Feedback parameters

	Students feedback on course curriculum	Students feedback on faculty	Students feedback on facilities	Faculty feedback on curriculum	Graduate exit survey	Alumni survey	Employer Survey	Parents Feedback form
a. Feedback on curriculum	Question: 1 to 14	Question: G, A	-	Question :1-4,6,7,11	Question: E	Question: B (11,12,15 - 19,23,24, 25)	Question: B (1-11,13,14)	Question: A(3,4,5,7,8), B(1,2,3,5)
b. Feedback on faculty	-	Question: C,D,E,F	-	-	Question: C,D	-	-	-
c. Feedback on facility	-	Question: B	Question: A,B,C,D	Question : 5,8,9,10	-	Question: B (20,21,22)	Question: B(12)	Question: A(1,2,6,9,10,12,13,14), B(4)

2. Teaching – Learning & Evaluation

- **Teacher Quality – Cadre ratio skewed**

The largest constraint in the growth of higher education is lack of good faculty. The Institution makes special efforts for recruitment and retention of quality faculty. The desired profile of the faculty at all levels has been clearly defined. The positions have been publicized widely through print and electronic media. The impact of the change has been clearly visible through larger interest among prospective faculty to join the Institution. Better qualified faculty members have applied. A meticulous process of evaluation that includes seminar presentation and personal interviews with a carefully chosen panel of experts is adopted. The details of faculty members with Ph.D. during the Academic year 2018-19 as compared with 2014-15 are as below:

Year	2014-15	2018-19
Number of Ph.D. holders	31	44

- **Faculty Appraisal system**

There is a well established faculty appraisal system with following objectives:

- Assess and promote excellence in the teaching-learning process
- Meet the educational needs of students by continually monitoring instructional performance
- Provide a constructive framework for evaluating faculty performance by identifying areas of strength and areas for improvement
- Provide a basis for professional growth and development of faculty members

Each faculty submits a faculty appraisal form and the same are consolidated by the Head of the Department. The Strength and Weakness of the faculty member in all the criteria's are analyzed by the Head of the Department and the Head of the Institute and the same will be conveyed to the faculty member for further improvements. The self appraisal scores with the recommendations of the Head of the Department and the Head of the Institute will be considered by the management for career advancements.

- **Evaluation process and Reforms – Automation of system progression**

Keeping pace with need for data availability in all spheres of institutional functioning, a customized management information system has been installed. With this the college has completely automated the administrative services for effective and efficient data management. Students' data is maintained from entry to exit. The programme covers students' profile, admission, fees payment, attendance, examination and generation of leaving certificate. It also includes modules for library management, time table, feedback, staff profile and activities / events management. Data once entered is available for all modules of MIS. The staff has been trained to use this data management system.

Management Information System

The campus management system is an integrated system which automates all aspects of the academic and administrative functioning, the below listed software are available at institution level:

- BACKBONE SOFTWARE:** It is a HR management module keeps detailed information about the qualification of staff, experience, address, contact information, photos, primary subjects, etc. It keeps a record of attendance for the particular session including leaves taken by the staff member, no. of working days, and no. of days

present. The data like Salary, Pay slip and any other documents can be taken from the module anywhere at any time. All teaching and non-teaching faculties were get benefited due to the easy accessibility of this software.

- b. LEARNING MANAGEMENT SYSTEM (LMS):** The objective of a learning management system is to add another level of efficiency to an organization and the growth of its students. It is an IP enabled online software which is used to deliver the subject content to students. LMS is also used to share various study materials to the students on the basis of anytime and anywhere accessing. LMS provides an efficient way to conduct forum discussion among the student community and online quiz activity during the laboratory sessions. All the under graduate and post graduate students get benefited from LMS.
- c. KEY-IN CAMPES:** It is a college management system in which the student attendance and assessment marks were uploaded and it generates automated reports on all aspects for data-driven decision-making. Class wise student attendance & assessment entry and consolidated report generation can also be done using Key-in Campes.
- d. TIME TABLE MANAGEMENT MOBILE APP:** The main objective of the app is to monitor the academic process. It maintains the data base of subjects, Class, Teachers and other details and it can be accessed from anywhere across the organization. The effortless time table can be scheduled and can be edited and book marked when needed. It has a unique time table format for each class and subject and the venue of each class can also be identified by using this app. All our faculties get installed this mobile app and benefited for their easy accessibility.
- e. NAD:** To verify institute issued certificates or mark list, alumnus or any other document user can upload the said documents at www.directverify.in and after completing the online payment, the institute will verify the credentials with their records. All graduates of our esteem institution, especially students who got admission in abroad get benefited easily.
- f. ALUMNI INTERFACE:** A strong Alumni cell is formed for the benefits of Institution, Current students and as well as its alumni. Frequent lecture series and Alumni interactions were conducted through a good alumni network for the current students to gain the knowledge about the recent trends and the expectations of a core industry.
- g. ONLINE FEEDBACK:** Survey about the course and feed back about the teaching are collected through online to improve and refine the teaching methods. Online feedback is also collected from parents, Alumni and stack holders for the enrichment of curriculum delivery.
- h. ONLINE FEE PAYMENT:** The online fee collection systems have made the overall procedure of fee collection hassle free. Now the students can pay their hostel fee and term fee from anywhere, anytime through link provided in the college website (www.drngpit.ac.in).

- i. **COURSERA:** Coursera is an educational technology company that offers massive open online courses (MOOCs). Coursera works with universities and other organizations to make some of their courses available online, offering courses in subjects such as physics, engineering, humanities, medicine, biology, social sciences, mathematics, business, computer science, digital marketing and data science among others. Coursera offers all its courses "accessible for free". All the under graduate and post graduate students get benefited from Coursera.
- j. **ONLINE GRIEVANCE REDRESSAL:** provides guidance for students/Parents in following the grievance process for academic and non-academic grievances, and complaints of unlawful discrimination or unfair treatment. Link : <http://www.drngpit.ac.in/>

Cloud based Digital transformation system – dhi: Digital transformation platform for Dr.NGP IT. This is integrated automation software with Academics, Administration & Accreditation

- **Student Performance and Learning Outcomes**

Assessment Procedure:

Mode of Assessment	Assessment Tool	Decision Criteria	Data Collection Frequency
Direct	Course Performance – University Examination	Number of Students crossed the benchmark value	Once in a semester
	Course Performance – Internal Examination	Weightage based on Class Test (CT), Internal Test(IT), MCQ, Assignment/Tutorial	Once in a month
	Laboratory Performance – Model Exams and Mini Project	Continuous Assessment (Formative & Summative)	Once in a week Once in a semester
Indirect	Course End Survey	80% of students get satisfied	At the end of the course

	Graduate Exit Survey	80% of students get satisfied	At the end of the Programme
	Alumni Survey	90% of Alumni participated in survey get satisfied	Once in a Year

3. Research, Consultancy & Extension

A fairly good quality research is being carried out in various disciplines as is evident from some patents, technology transfer to industries, consultancy, and publications in high impact factor journals. To support high quality research among its faculty members and students, the state-of-the-art infrastructure facilities are available for students and faculty members to carry out research in cutting edge areas.

Research publication and Awards:

Awareness for patenting was created through various programmes organized through the center for research. This showed a good improvement in the number of patent filed during the last three years.

Details of Patents filed since 2017

Academic Year	Dept	Inventor	Title of The Project	Date of Filing	Date of Publications
2019-20	NGPIT	Dr K Porkumaran Dr S Jaganathan Mr R Sundar	Strong Hold fringe for defense sector USING EMP		
2019-20	NGPIT	Dr K Porkumaran Dr S Prabakar Dr C Ram Kumar	Capsule based gastric Rhythm Analyzer		
2018-2019	EEE	Dr. K. Porkumaran	An Intelligent Method to Improve the Write Performance of NAND Flash Memory Device	11.10.2018	19.10.2018
2018-2019	EEE	Dr. K. Porkumaran &	Intelligent Control System and Method for Drug Delivery Management	30.08.2018	07.09.2018

2018-2019	BME	Dr. S. Prabakar	Breast Cancer Identification System and a Method Thereof	26.10.2018	02.11.2018
2018-2019	BME	Dr. S.Prabakar	Intelligent portable wide field roof screening system with tele-medical applications	12.10.2018	25.10.2018
2018-2019	BME	Dr. C. Ram Kumar	Congestion avoidance multipath routing wireless sensor network	05.02.2018	13.04.2018
2017-2018	EEE	Dr. S.Jaganathan	A method for the Protection of Double circuit & NBSP electrical Power lines protected by local & Remote	15.02.2018	23.02.2018
2017-2018	EEE		Medium /Low voltage Transformer station in Substation area	19.02.2018	23.02.2018
2017-2018	IT	Dr.S.Jaganathan Dr.D.Palanikumar	A method for a big data analytics enterprise framework	01.05.2018	11.05.2018
2017-2018	ECE	Dr.B.Arunadevi	Automatically deployable and retractable sheathe system	20.11.2017	24.11.2017
2017-2018	EEE	Dr.S.Jaganathan	A system and methods for instantiating and operating a virtual appliance monitor in a cloud network	20.04.2018	27.04.2018
2018-2019	EEE	Dr.V.Ranganayaki	Intelligence smart interactive fan	31.07.2018	10.08.2018
2017-2018	EEE	Dr.M.Gopinath	Washing Machine	06.10.2017	20.10.2017

Resource Mobilization for Research:

There has been a gradual increase in the research activities, where in more funds were received from government and non-government agencies for conducting various Events.

S.No	Name of the faculty	Funding Agency	Amount
1	Dr.K.Porkumaran	ICMR	6,00,000

2	Dr.S.Prabakar	ICMR/ ISTE	55,000
3	Dr.K.Ravi kumar	SERB	1,00,000
4	Mr.G.Ramesh Kumar	CSIR	25,000
5	Mr.C.Chinnaraj	ISRO/CSIR	65,000
6	Dr.S.Jaganathan	CSIR	25,000
7	Dr.V.S.Sree Balaji	ICMR	50,000
8	Mr.Rajkumar S	ICMR	95,000
9	Dr.V.Ranganayaki	TNSCST	20,000

Fund Generated

Year	Government	Non Government
2018 - 2019	Rs 9,30,000	Rs 25,84,856
2013- 2014	Rs 2,10,000	-

Financial support for research

Year	Seminar	Workshops	Conference
2018 - 2019	60	38	5
2013 - 2014	2	3	1

S.No	Dept	2017- 2018		2018- 2019	
		Journal	Conference and Book chapters	Journal	Conference and Book chapters
1	BME	16	32	3	4
2	CIVIL	8	18	3	23
3	CSE	10	14	10	5
4	ECE	8	23	3	61
5	EEE	6	16	2	13
6	IT	3	2	1	9

7	MECH	16	26	7	41
8	MBA	74	9	19	16
9	S&H	27	19	28	8

4. Infrastructure and Learning Resources

The ambience is improved with features like LCD projector, Wi-Fi facility for internet access, speakers for all classrooms, well spaced class rooms - proper ventilation and lighting. Smart board facility has also been extended on need basis. Well established teaching learning center is utilized for effective teaching and learning environment

The ICT thrust in Teaching and Learning has been strengthened by extending the facilities of LCD projectors, laptops/desktops, Computing Software, Internet connection, Wi-Fi in all academic areas including hostels/guest houses, Library etc to promote ICT learning.

Teaching Learning Centre has been established. Moreover, NPTEL and, other Open Source Study materials are used for the purpose of teaching and learning. ICT & Other tools such as Web Online Public Access System (Web OPAC), Digital Library, Computer Based Retrieval of information, Institutional Repository, Reprography, Scanning, Laser Printing etc have been deployed for maximum access to the library collection.

Library hours has been extended during working hours till 8.00 pm.

The utilization of the Library is as below during the last academic year.

Month	Book Transactions			Gate Entries	OPAC Hits	Book Transactions / Day	Entry / Day	OPAC Hits / Day
	Issue	Return	Total					
18-Jul	1209	860	2069	4013	1200	138	268	80
18-Aug	922	929	1851	3749	802	123	250	53
18-Sep	768	784	1552	2579	871	103	172	58
18-Oct	1371	1094	2465	5261	744	164	351	50
18-Nov	754	907	1661	2664	893	111	178	60
18-Dec	986	946	1932	3337	1034	129	222	69
19-Jan	645	1013	1658	3784	988	111	252	66
19-Feb	565	571	1136	4795	895	76	320	60
19-Mar	654	612	1266	4960	927	84	331	62
19-Apr	831	640	1471	4361	1256	98	291	84
19-May	429	871	1300	2245	881	87	150	59

19-Jun	417	220	637	1813	711	42	121	47
Grand Total:	9551	9447	18998	43561	11202	106	242	62
USAGE / DAY						410		

Internet bandwidth has been increased to 88Mbps and wi-fi facility has been extended to all students during working hours

Facilities like ramp and lift has been provided in all the academic buildings, also exclusive toilet facility has been created for differently abled students

5. Governance, Leadership and Management

Governing Council meeting is conducted periodically and minutes are recorded.

Department Advisory Board suggestions are discussed in the Governing Council meeting.

Department Advisory Board meeting 2019-20

S.No.	Dept.	Venue	Academic expert	Industrial expert	Parents	Alumni	Total
1	BME	CEO Office	3,000	3,000	1,000	1,000	8,000
2	Civil	C Block Board room	3,000	3,000	1,000	1,000	8,000
3	CSE	Swayam Prabha	3,000	3,000	1,000	1,000	8,000
4	ECE	CFR	3,000	6,500	1,000	1,000	11,500
5	EEE	CFR	3,000	3,000	1,000	1,000	8,000
6	MECH	Mechanical Board room	3,000	3,000	1,000	1,000	8,000
7	IT	Swayam Prabha	3,000	3,000	1,000	1,000	8,000
8	MBA	MBA Board Room	3,000	3,000	1,000	1,000	8,000
Total Amount							67,500

Outcomes of the DAB meeting

- Industrial expert insisted to increase the Industrial Based field projects among the final year students.

- The methods for increasing placement opportunities for students in core companies and with high packages were discussed
- Alumni appreciated the various events to be organized across various cities for Alumni Interaction.
- Academic expert suggested that success ratio of students enrolled for GATE is less so motivation to be given to students and asked the department to organizes and encourage the students for participating in competitive exams
- The industrial and academic expert insisted on strengthening of MoU with industry and research institutes.
- The HoD's insisted that equal importance to given to Sports and other co-curricular and extracurricular activities
- Higher education opportunities for post graduation, summer internship program and activities related to professional societies, technical and non-technical clubs were discussed
- The board observed the need of increased funded research activities in the department

Financial Management and Resource Mobilization

Budget allocation policy is properly implemented.

Budget committee meeting was on 09.07.2019 for the academic year 2019 – 20.

The following is the Executive summary of the Budget meeting held on 09.07.2019

Heads of Accounts	ECE	EEE	CSE	IT	CIVIL	BME	MEC H	S&H	MB A	Total
Laboratory Equipment	1305 00	9470 00	2469 000	5620 00	1660 00	6442 50	2023 50	0	0	51211 00
Software	3000 00	0	0	0	0	3000 0	1160 000	0	0	14900 00
Laboratory Consumables	1945 0	3021 0	0	1368 0	5580 0	1166 25	1896 65	130 615	0	55604 5
Maintenance and Spares	1100 00	7200 0	5600 0	3500 0	1100 00	1190 00	4191 50	129 50	0	93410 0
Printing and Stationery	3061 4	7990	1251 0	4930 0	4626 0	2760 0	2570 0	294 20	300 00	25939 4

Postage and Courier Expenses	5700	1600 0	3500	7000	1500 0	2500	5000	600 0	140 00	74700
Research & Development	3200 00	2500 00	3378 00	1500 00	3000 00	2750 00	8500 00	750 00	0	25578 00
Conference/Seminar/Workshop/FDP	5080 00	2200 00	1250 00	2430 00	2760 00	4700 00	3920 00	285 000	123 500	26425 00
Travel Expenses	4000 0	2500 0	3300 0	1600 0	2800 0	5000 0	2500 0	200 00	260 00	26300 0
Others	7200	5000	2000 0	2500 0	1500 0	1214 00	5750 0	140 00	300 00	29510 0
Miscellaneous	1000 0	1000 0	1000 0	1000 0	1000 0	1000 0	1000 0	100 00	100 00	90000
CFR	Excluding Department Research Requirements									18892 00
Library	All Departments, Books, Magazine, Journals									24410 00
Placement & Training Office	Training, Company Visit, Campus Drive									20660 00
TOTAL	1481 464	1583 200	3066 810	1110 980	1022 060	1866 375	3336 365	582 985	233 500	20679 939

FINANCIAL RESOURCES

Dept	Amount Generated in Rs				
	2014-15	2015-16	2016-17	2017-18	2018-19
BME	-	3,56,300	7,3,316	4,77,200	5,87,200
CIVIL	3,89,500	3,95,000	4,35,000	4,45,000	4,37,500
CSE	2,21,299	3,36,500	3,63,398	3,70,550	4,66,009

ECE	99,750	3,32,510	7,96,299	5,55,470	2,65,147
EEE	4,04,000	4,57,000	5,27,300	4,01,000	3,95,500
MECH	2,74,000	3,15,000	3,97,500	5,75,500	2,59,500
MBA	1,02,500	4,10,000	3,96,750	4,11,000	4,04,000

ALUMNI CONTRIBUTION

- Participation of alumni in resource generation is inadequate

S.no	Description	Amount
1.	Contribution towards fees for economical poor students (1/ branch)	Rs 5000 x 8 = Rs 40,000/-
2.	Contribution towards purchase of laboratory equipment	Rs 27,278.60 /-
3.	Contribution to purchase of computer in alumni cell	Rs 15,000/-
4.	Contribution towards conduct of alumni Chennai chapter inauguration on 22.6.2019	Rs 34,000/-
Total expenditure		Rs 1,11,278.60/-

- Alumni meet and more alumni lecture series are conducted to strengthen the alumni interactions

Alumni Activities					
Year	2014-15	2015-16	2016-17	2017-18	2018-19
Number	26	29	32	34	40

Other Quality Initiatives by IQAC

- **Academic and Administrative Audit**

Upgrading academic and administrative processes is a continuous endeavor for the institution. As per the recommendation of IQAC, a standardized Academic and Administrative audit process is introduced from the year 2014-2015 with an objective of self and external evaluation and sustenance initiatives for maintaining quality.

A standardized format was prepared taking in to consideration all the aspects of academic and administrative inputs like departmental profiles, students' profile, workload, research details and teaching and evaluation processes. It also includes assessment of teachers by higher authorities in areas of qualification, punctuality, regularity, accountability etc. Proforma for administrative departments included information related to different sections handling admission, examination, stores, maintenance, accounts, salary, appointments, promotions, administration, and scholarships. Library and laboratories audit proforma included related details of timings, various facilities / services provided, administration, etc.

This has resulted in exhaustive and healthy SWOC analysis leading to quality consciousness in staff. This has also brought in use of different teaching methods, increase in number and types of curricular and co-curricular activities and systematic record keeping by the staff members.

- **Green initiatives:**

As part of green initiatives, activities to promote eco friendly measures are undertaken.

Energy Auditing was conducted in the academic year 2019-20 with an objective of creating awareness regarding energy conservation and to find out means of reduction energy wastage.

simple measures like using two sides of paper for printing, using waste paper for rough work, only using the lights/fans needed, shutting off lights in unused rooms etc are also practiced.

- **NBA Accreditation process**

Five departments are accredited by NBA – BME, CSE, EEE, ECE, MECHANICAL