



1986

अखिल भारतीय तकनीकी शिक्षा परिषद्

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

(भारत सरकार का एक सांविधिक निकाय) (A STATUTORY BODY OF THE GOVT. OF INDIA)

राष्ट्रीय प्रत्यायन मंडल (रा.प्र.मं.)

NATIONAL BOARD OF ACCREDITATION (NBA)

(constituted under clause 10(U) of AICTE Act, 1987)

(गठित किया गया है अधिनियम, 1987 की धारा 10 (प) के अधीन गठित)

डॉ दिनेश

सलाहकार-II

(गुणवत्ता आश्वासन ब्यूरो)

Dr. Dinesh

ADVISER-II

(Quality Assurance Bureau)

F.No. NBA/ACCR-364/2004

March 4, 2009

To

The Principal

Government College of Technology,

Thadagam Road, Coimbatore - 641 013



Dr. Dinesh
6/1/09

Sub : Accreditation Status of Programme(s) offered by your Institution.

Dear Sir / Madam:

With reference to your application for accreditation of the following programme(s) and the Expert Committee visit to your institution, the report of the visiting team was considered by the Engineering Accreditation Committee and subsequently by the National board of Accreditation in its meeting held on 10-02-2009. Based on the recommendations of the Board, I am pleased to communicate the Accreditation Status of the following programme(s) of your institution.

Sl. No.	Name of Programme(s)	Accreditation Status	Period of validity w.e.f. 10.02.2009
1.	BE Electronics & Instrumentation Engg.	Accredited	3 years
2.	B. Tech. Information Technology	Accredited	3 years
3.	BE Civil Engg.	Accredited	3 years
4.	BE Mechanical Engg.	Accredited	3 years
5.	BE Electrical & Electronics Engg.	Accredited	3 years
6.	BE Electronics & Communication Engg.	Accredited	3 years
7.	ME Structural Engg.	Accredited	3 years
8.	BE Production Engg.	Not Accredited	

(Total number of programmes Accredited vide this letter - Seven and Not Accredited - One)

The Accreditation status awarded to the above programmes of your institution does not imply accreditation to the College/Institution as a whole. Complete name of the Programme(s) Accredited and its period of validity, as well as the date from which the award is effective, should be quoted unambiguously whenever and wherever it is used. The accreditation status of the above programmes is subject to periodic review by the NBA Secretariat and will be changed if major deficiencies are identified on surveillance. You are also requested to comply with the mandatory disclosure of pertinent information as per the proforma available in the AICTE website with respect to accredited programmes of your institution. The same information should also appear in the website and information bulletin of your institution clearly indicating the date of publication of the same.

Contd.....2

GOVT. COLLEGE OF TECHNOLOGY : COIMBATORE:641 013

Endt.No.2308/E1/08 Dated.17.03.2009

(Copy) communicated for information and necessary action.

Sd/- S. ANNADURAI
PRINCIPAL

To

All Head of Departments.

Copy to Principal's Table

- : Vice Principal
- : Controller of Examinations
- : P.A to Principal, Bursar, All Superintendents
- : C1, E2 through Superintendent
- : Professor of CSE

/F.B.O./

SV

[Handwritten Signature]
 SUPERINTENDENT 19/3/09
 92
 1913

Sl. No.	Name of the Officer	Designation	Remarks
1			
2			
3			
4			
5			
6			
7			
8			

PA

FINAL REPORT ON THE RECOMMENDATIONS OF THE VISITING TEAM FOR ACCREDITATION OF EIGHT PROGRAMMES REQUESTED BY THE GOVERNMENT COLLEGE OF TECHNOLOGY, COIMBATORE.

(Prepared by Prof. D V Singh)

Executive Summary

The Government College of Technology applied for accreditation of its academic programmes. NBA decided to consider one postgraduate and seven undergraduate programmes for accreditation and constituted a Visiting Team with Professor D.V.Singh as its Chairman for the evaluation of the eight academic programmes. The composition of the Expert Team is given in the *Annexure 1*, which shows the programmes assigned to its members and also the additional responsibilities (in italic) assigned to them by the Chairman of the Team. The procedure followed for the evaluation of the programmes conformed to that prescribed in the Manual of Accreditation. *Annexure 2* gives the outline of the Activities performed by the Team /during the visit. The outcome of the assessment of the eight programmes is compiled below:

CONSOLIDATED SUMMARY OF ASSESSMENT

Attributes	Maximum Marks	Programme							
		1	2	3	4	5	6	7	8
i. Organization and Governance	(BE) 80	52	47	47	48	45	46	48	34/50
ii. Financial Resources, Allocation and Utilization	(BE) 50	49	52	49	52	50	48	52	36/50
iii. Physical Resources (Central Facilities)	(BE) 70	41	41	41	41	41	41	41	40/50
iv. Human Resources : Faculty and Staff	(BE) 200	118	113	118	144	134	118	120	139/200
v. Human Resources : Students	(BE) 100	68	86	91	86	93	90	87	88/100
vi. Teaching-Learning Processes	(BE) 350	200	245	256	274	253	248	253	196/250
vii. Supplementary Processes	(BE) 50	36	35	36	35	38	36	35	36/50
viii. Research & Development and Interaction Effort.	(BE) 100	38	41	49	50	41	50	42	164/250
TOTAL	(BE/ME)1000	602	660	687	730	695	677	678	733/1000

A legend of the labels of the eight programmes is given below. Six of the seven under graduate programmes have obtained the scores to qualify for grant of

accreditation for three years. The postgraduate programme has also obtained a qualifying score for accreditation for three years.

Legend

Programme Number	Name of Programme
1	B.E. (Production Engineering; PE)
2	B.E. (Electronics and Instrumentation Engineering; EIE)
3	B.Tech. (Information Technology; IT)
4	B.E. (Civil Engineering; CE)
5	B.E. (Mechanical Engineering; ME)
6	B.E. (Electrical and Electronics Engineering; EEE)
7	B.E. (Electronics and Communication Engineering; ECE)
8	M.E. (Structural Engineering; SE)

PART - 1

On the request of the Government College of Technology (GCT), Coimbatore, NBA listed the following programmes for their assessment for accreditation:

1. B.E. (Production Engineering; PE)
2. B.E. (Electronics and Instrumentation Engineering; EIE)
3. B.Tech. (Information Technology; IT)
4. B.E. (Civil Engineering; CE)
5. B.E. (Mechanical Engineering; ME)
6. B.E. (Electrical and Electronics Engineering; EEE)
7. B.E. (Electronics and Communication Engineering; ECE)
8. M.E. (Structural Engineering; SE)

A Visiting Team of fifteen expert members and a Chairman, *Annexure 1*, was constituted to visit the College in Coimbatore. The Visiting Team of Evaluators carried out the evaluation work on September 26, 27, 28, 2008. No General Evaluator was formally appointed. The Chairman got voluntary help from some Team members for the tasks prescribed for General Evaluator in the Manual.

The Government College of Technology (GCT) was established (as Arthur Hope College of Technology) in 1945. It has a campus of 45 Ha and has land available for development and expansion of the Departments. Some additional space for the Civil Engineering Department is being built. Getting funds from the State Government for construction of building space seems to be a long drawn process. Proposals are being prepared for building spaces in IT and ECS Departments.

The College offers nine undergraduate programmes leading to B.E. degree in Engineering/ Technology and eleven postgraduate programmes leading to M.E. degree. Eight B.E. programmes and only five of the M.E. programmes are AICTE approved. Four of the undergraduate degree programmes were accredited for three years (*Annexure 3*) in 2005 and are due for renewal of accreditation. The College applied for accreditation of seven of its nine undergraduate programmes and one of its M.E. programmes. All the undergraduate programmes, with four year duration, have an intake of 60 each. GCT runs an undergraduate programme in Industrial Biotechnology (IBT), which is not AICTE approved. The placement of IBT graduates is comparatively poor in comparison to that of other programmes. GCT also runs four evening programmes (Civil, EEE, Mech E and ECE) for part-time B.E. degree, also with intake of 60 in each. The academic results of part-time students are rather poor. The profile of part-time programmes is not encouraging. The students are not duly committed and are not regular in attending the evening classes and doing their (tutorial) assignments.

GCT has eleven postgraduate programmes; three of them were started in 1970s (beginning 1971), three in 1980s, four in 2001 and the last one in 1997. Only

four of these programmes, (1) Computer Science and Engineering, (2) Environmental Engineering, (3) Engineering Design and (4) Structural Engineering, are approved by AICTE. The remaining seven are not approved by AICTE; they were inherited from Anna University Chennai. Out of the four AICTE approved M.E. programmes, only one was accepted by NBA for consideration of accreditation.

Being a Government College under the control of the State Government, the hierarchy of governance rests in the State Government, Chief Minister downwards. In this hierarchy, at the College level, GCT has a Board of Governors of which the Director of the Technical Education is the ex-officio Chairman. Other members of the Board include two from industry, two Heads of other Institutions in Tamilnadu, Southern Regional Officer of AICTE, Registrar Anna University CBE and two Professors of GCT; the Principal GCT is the ex-officio Member Secretary of the Board. The Board of Governors was only recently constituted. The Board had its first meeting on 29 Nov, 2007, which the Chairman of the Board could not attend. In this first meeting the Board approved the composition of the Academic Council and of the various Committees and also their functions. The functions are given in *Annexure 4*. The Board meets every two months. GCT, as a Government College, is under the control of the Directorate of Technical Education for administrative monitoring. The recruitments of the Lecturer at the entry level are done by the Teacher Recruitment Board of the State Government through written tests and interview. The ministerial staff is recruited by the State Public Service Commission. The College recruits technical and service staff through the State Employment Exchange.

Up to 1981, the College was affiliated to Madras University. In 1982 the affiliation moved to Bharthiar University. In 2001 the college got affiliated to Anna University Chennai. GCT was accorded full academic autonomy in 1987, which was extended in 1992 for 5 years. In January 2001, the College got affiliated to Anna University Chennai. From 2007 the affiliation is transiting to Anna University Coimbatore with which the First and Second Year UG and the PG courses are affiliated presently. The Anna University Coimbatore (AUC) is presently taking shape and the affiliation of GCT will be fully with AUC. GCT will also need formally the grant of Academic Autonomy by the new University.

The annual intake of students in GCT is 551. Practically all the seats are filled up; the cut-off level in admission is quite high. Of the current total enrollment 2410 of the students, the College has 1589 boys and 821 girls, giving a good gender ratio of 1.9:1. GCT has made provisions for counseling and guidance to students. Each Class has a Faculty Advisor. The College has a Placement Officer who also provides career counseling and a General Counselor to coordinate the work.

11 -

The total strength of the faculty teachers is 94 (Professors 9; Assistant Professors 19; Lecturers 66; Ratio 1: 2.1:7.3). The average age of Professors is 52.3, of Assistant Professors 47.1, and of Lecturers 34.6 years. The student-teacher ratio is 24:1. According to AICTE norms of 15:1 of this ratio, GCT is short of 160 teachers. The shortage of teachers is a major handicap of GCT. The total number of support staff in GCT is 345 which means that the faculty- non-teaching staff ratio is 1:3.7

GCT receives its grants, which are released by the Government Treasury. Usually the College receives 70 to 80% of the requirements projected in the Annual Budget finalized by the Board of Governors. Since 2007-08, the State Government has allowed the College to retain its generated revenue (student fees, consultancy, training programmes, testing, etc.) in the Development Fund. A five member Development Committee chaired by the Principal decides the allocations from the Development Fund, which in 2007-08 stood at Rs. 1.7 Crore.

Service Rules for faculty and staff are as prescribed by the State Government, including leave rules and retirement benefits. The faculty posts are transferable to other Colleges in Tamilnadu. Department/ Programmes are facing shortage of faculty. Even though there is a standing G.O. (No. 305) dated 18-7-2000 of the Tamilnadu Government which provides that Career Advancement Scheme be implemented scrupulous by the Director of Technical Education, the College has ineffective implementation of promotion policies. Promotions are delayed due to lack of initiative in Technical Education Department. The efforts made by the College to pursue the matter with the concerned Government Department, have proved too feeble to overcome bureaucratic formalities and procedures. A much more serious and sustained effort is to be made with the Government for recruitment of teaching staff. Since the staff is transferable under Government service, a holistic solution is required to deal with the problem of shortage of faculty. Steps on priority are needed to recruit faculty with PhD and M.E. qualifications at Professor and Associate Professor levels. This will enhance the research profile of GCT. Higher education avenues for GCT faculty through QIP scheme are not available, although teaching staff from other institutions can pursue postgraduate studies in GCT.

The regular budgetary allocations for faculty for in-house R&D are very small. The research publications of the faculty are inadequate. The procedure for the faculty to attend conferences abroad needs to be simplified. The normal non-recurring budget is by and large very inadequate. GCT got a grant under TEQIP which enabled the College to buy new equipment for several laboratories. The Central Workshop facility is good and it has several special purpose modern machines.

New recruitment of non-teaching staff was banned by the State Government. In view of depleted strength of the non-teaching staff, this ban was lifted recently

13

in 2007-08. The non-teaching staff, like the faculty, is also stagnating; pragmatic promotional policies for them are required. More importantly, the promotional policies should be implemented. Training programmes for enhancing the knowledge and skills of non-teaching staff needs priority attention.

In general, because GCT is an old established Government College and tuition fees are moderate, comparatively brighter students take admission in various courses of study and in all the programmes their academic results are by and large good. GCT has a good placement record which is also a factor to attract good students. GCT acquired academic autonomy in 1987. The autonomy gives to the College the opportunity to continually upgrade and update its syllabi; this activity needs to be vitalized. GCT is affiliated to Anna University and was given its Autonomous status by Anna University Chennai. An Anna University Coimbatore (AUC) is being presently established and with the establishment of Anna University at Coimbatore, GCT would need the grant of Autonomous status by the new University.

The College ensures 90 working days in a Semester. A college Calendar is provided to each student in the beginning of the Semester. A system of obtaining the feedback from students at the end of the Semester and its follow-up actions is in position. The weightages on academic performance evaluation of students is 20% for coursework and 80 % for the end Semester examination. This is currently being changed to 25% and 70% respectively.

About 90% students are from out of town. The total number of students living in Hostels is 2024 (84%) comprising 1319 (83%) boys and 705 (86%) girls. Many rooms are 3-, 4- seated. In Girls Hostel, rooms are up to 6- seated. The Hostel facilities do need improvements, particularly those which house the First and Second Year students.

Facilities are provided to students for cultural and extra-curricular activities through a Literary and Debating Society, SAE Collegiate Club and Clubs of Computer, Energy, Science and Arts. GCT has NSS and NCC activities. GCT has good facility for games and sports which is looked after by the Department of Physical Education.

Central Facilities

1. Computer Centre

The College Computer Centre has been upgraded under TEQIP with a large number of desk-top PCs. The Center, however, does not have any specialized/ special purpose Software. The facility is not open and available much beyond office hours. No full time staff is available for support of Computer Centre services. The Internet bandwidth is 2Mbps from BSNL; it needs upgradation and extension to student hostels.

15

Discussions were held with Professor In-charge Dr. D. Mang and other staff, Prof. K. Ranjith Kumar and Mr. K. Pataraj at the Central Computer Centre. Discussions were also held with Internet staff, Dr. T. Purusothanan, Ms. S. Rathi and Mr. C. Charlu.

2. Language Laboratory

The Language Laboratory is well equipped and is extensively used for all the academic programmes in both the Semesters. The focus of the laboratory is on communication skills in English Language; diction, fluency, articulation, conversation, oral presentation and writing. TQEIP support has helped in establishing good facility and services of the Language Laboratory. The Laboratory has some useful Softwares to achieve fluency in the language. GCT has signed a MOU with the British Council, which gives useful inputs and good support in learning the English language skills.

Discussions were held with Professor In-charge Prof. Anbazhagan Vijay and Mr. Annadurai.

3. Central Library

There is a shortage of staff and also of space. The Library timings are rather limited. More text-books need to be added. The Library has computerized the issue and return of books to the users and maintains a computer log of those who visit the Library. During the examination period, hours of the reading space facility are extended.

A Digital Library was established with TEQIP grant. It presently has 18 Computers, 64 Book CDs and 350 Journal CDs and receives an average 50 visitors daily. The Issue Section receives an average of about 170 visitors per day and the Reference Section receives an average of 150 visitors a day.

4. Internet Facilities

GCT has a 2Mbps lease line and a computer network with fibre optic backbone having a bandwidth of 8GH. The Internet is accessible to all the Departments and to the Girls Hostel. The College has a website (www.gct.ac.in). For e-learning GCT is connected to Anna University Satellite Training Development Programme facility, and networking with premier institutions and industries.

5. Other Facilities

GCT has a Power Backup of a total capacity of 500 kVA (two units of 380 and 125). The current peak demand of the Campus is 350 kVA. The power situation is therefore quite satisfactory in the Campus. The operation of the power plant is quite good.

GCT has good reprographic facility, medical facility, bank facility, a Post Office and a small fleet of vehicles (buses 2; cars 2 and a jeep).

17

PART - 2

Summary of the Assessment and Evaluation of Programmes

Form the general feedback form the members of the Visiting Team who did the assessment of the eight programmes, the following programme-wise summary has been prepared by the Chairman.

Programme 1

B.E., Production Engineering (PE)

This programme was started in 1978. In the beginning, the programme was part of the Mechanical Engineering Department. The separate Department of Production Engineering was established in 2003.

The R&D activity in the Department is more or less non-existent. Faculty should take up R&D activities and should give priority to publishing their research in good journals.

A number of equipment in the laboratories is dysfunctional which occupy valuable laboratory space. New machinery, equipment and software have not been acquired.

Many elective subjects listed in the syllabi are actually not offered due to shortage of faculty, No teaching aids are used and teaching methods are old and traditional. Students are not provided with manuals in the Laboratory.

Students need to be encouraged to take live projects relevant to industries and where possible, write papers. The Department should have a project laboratory to preserve selected student projects.

The expert members of the Visiting Team for the programme interacted with Dr. M. Arularasu, HOD and faculty members, Mr. S. Shivakumar, Mr. Nandakumar, Mr. S. Gopi and Mr. S.S. Moorthy and also some supporting staff.

The Programme Team members visited Machine Shop, Carpentry Shop, Fitting Shop, Foundry Shop, Welding Shop and Sheet Metal Shop to inspect the Shop facilities and also visited Metrology, CAD, CAM, and Simulation Laboratories.

Programme 2

B.E., Electronics and Instrumentation Engineering (EIE)

This programme is run by the Electrical Engineering Department. The Department also runs another full time B.E. programme in Electrical and Electronics Engineering and a part-time B.E. programme and two M.E. programmes. The BE (EIE) programme is being run quite satisfactorily. There is, however, a shortage of faculty due to which an appreciable part of teaching in the programme is done by the post-graduate students. Of the six faculty members earmarked for the programme, one has Ph.D. and five have M.Tech.

but they have not paid much attention to R&D, sponsored projects and consultancy. The faculty has only a few publications, mostly in Conference proceedings. The Department does not have adequate space to accommodate students and laboratories. Some laboratories are housed in tin shades. Nevertheless, performance of students is good as indicated by their academic results and their placements.

The expert members of the Visiting Team interacted with Prof. P.N. Neelakantan, Prof. D. Mary, other faculty members and staff as well as students. They visited the various laboratories of the Department.

Programme 3

B.Tech., Information Technology (IT)

This programme was started in 2001. The number of teaching staff is small but the staff is dedicated and many of them have Ph.D. The Department has a good number of students registered for Ph.D. Under TEQIP, the Department has acquired good equipment and software. The laboratory space, however is inadequate. IT is a fast expanding area but no scope has been made in the programme to enrich knowledge of students beyond the course syllabi.

The expert members of the Visiting Team for the Programme interacted with the head of the Department and all the faculty members, to name a few, Mrs. S. Rathi, Mrs. J.C.M. Joyce Pamila, Dr. K. Bhaskaran and Dr. M.L. Valanthan, and also the other staff. The members visited the Visual Programming and Data Structure laboratory, UNIX and Graphic Laboratory, Integrated Circuits and Telecom Laboratory and AI Laboratory as well as the Department Library.

Programme 4

B.E., Civil Engineering (CE)

Nearly 50% of the faculty has Ph.D. qualifications. Others have registered for Ph.D. The computing facilities are good. Laboratories are well equipped. Consulting and testing activities are good. Activities of Continuing Education programmes are also good. The programme will greatly benefit from more collaborations with industry and other user agencies. In-house R&D work needs much greater effort and faculty should aim at publications in refereed journal of repute in India and abroad. Entrepreneurship development needs attention.

The expert members of the Visiting Team assigned to the Programme interacted with faculty members, Prof. R. Elangovan, Prof. M.K. Saseetharan, Dr. P. Perumal, Dr. V.M. Shanthi, Dr. P.D. Arumairaj and Dr. R. Thenmozhi. The members visited strength of Materials, Concrete, Soil Mechanics, Public Health Engineering, Surveying, Hydraulics, Models and Heavy Structures Laboratories. The members also visited the computer facility and the Department Library.

Programme 5

B.E., Mechanical Engineering (ME)

This is an old programme of GCT. Interaction of faculty with industries is however, weak. There are several vacant faculty positions in the Department. The faculty needs to be more active in seeking sponsored projects and consultancy. The teaching process is satisfactory, which is reflected by high pass percentage. The student placement record is quite satisfactory.

The member of the Visiting Team for the Programme interacted with Dr. M. Natarajan, Dr. Alwar Swamy, Dr. P.K. Palani, Dr. K.S. Amrithagadeswaran, Mr. C. Selvaraj and Dr. M. Rajendran (Head of Department). The members visited Dynamics, Heat Transfer, I C Engines, Automobile, Metallurgy, Air Machinery, CAD/CAM, Instrumentation and Robotics Laboratories and the Workshop. The Laboratories need better maintenance.

Programme 6

B.E., Electrical and Electronics Engineering (EEE)

The faculty is motivated and dedicated. However, promotions are delayed, which have resulted in stagnation. Although GCT received TEQIP grant, the development and the management at the Department level are not quite visible. The benefit of TEQIP inputs is yet to be fully realised for which much more initiatives of the management is needed.

The members of the Visiting Team for this programme interacted with Prof. P. Neelakanthan (HoD), Dr. D. Mary, Ms. N. Narmedhai, Ms. L. Mercy and other faculty members, non-teaching staff and students. The members visited all the laboratories (Electrical Machines Laboratory, Virtual Instrumentation Laboratory, etc.), the computer facility and the premises.

Programme 7

B.E., Electronics and Communication Engineering (ECE)

This Department was started in 1970-71. In addition to the undergraduate programme in ECE for which accreditation was requested by GCE, the Department runs two postgraduate programmes M.E. (Applied Electronics) since 1980 and M.E. (VLSI) since 2003. The B.E. programme has both full-time and part-time students with a total intake of 60 whereas the intake in the two M.E. programmes is 18 in each. The Department also has Ph.D. programmes.

The intake quality of students is very good and all the seats are filled up. The academic results and placement of graduating students are excellent. TEQIP support has enabled the Department to procure some latest equipment and software to upgrade the undergraduate and postgraduate laboratories, particularly the DSP and VLSI design laboratories. However, not much effort has been made to set up new experiments. It is desirable to set up a new Digital

Communication Laboratory and a Networking Laboratory or at least integrate a good number of experiments on these subjects into the existing Laboratories. The Department has adequate space for Laboratories, Class-rooms and faculty offices, but the number of technical staff is inadequate.

The numbers of faculty members is very inadequate. Many course-units are taught by M.Tech. Students. The R&D activity needs strengthening. The promotional scopes for faculty are limited, which is not good for providing motivation. Faculty recruitment is required on priority, particularly at senior levels. Presently a non-Ph.D. faculty member with no administrative experience is heading the Department. A thorough overhauling of curricula and laboratory experiments is required.

The expert members of the Visiting Team for the Programme interacted with the Head of the Department, and all the faculty and also had discussions with several students. The members visited Electronics, Analog Circuits, DSP, VLSI, Microwave, Computer, Microprocessor and IC Laboratories. The members also visited the Department Library and the Seminar Hall.

Programme 8

M.E., Structural Engineering (M.E., S.E.)

The postgraduate M.E. programme has been running since 1971. It has 25 students on roll including part-time students. The faculty teaching the course is young and qualified and takes keen interest on the development of students. The syllabi of course units are quite good although some restructuring of the syllabi is required. The graduating students are readily accepted by the industries and other employers. The placement records are very good.

The expert members of the Visiting Team assigned for this programme interacted with the faculty, Prof. R. Hangovan, Dr. P. Perumal, Dr. P.D. Arumairaj, Mrs. S. Jayanath, Mr. P. Balasubramanium, Dr. R. Thenmozhi, Dr. J. Jayanthi. The members visited the Soil Mechanics, Strength of Materials, Concrete, Models, Hydraulics and Dynamics Laboratories and also made an assessment of the Department Library and Computer and Reprographic facilities.

Departments of Physics, Chemistry, Mathematics and English

The qualifications and general quality of faculty and of non-teaching staff in Physics, Chemistry, Mathematics and English Departments are reasonably good, considering that their roles are primarily at the undergraduate level to provide supporting education to students of the engineering and technology programmes. Physics and Chemistry Departments have good undergraduate Laboratories. The Physics Department has a total faculty strength of seven, three Assistant Professors with PhD and four Lecturers (one with PhD and three with MSc/ M Phil); the Department has no Professors. The Chemistry Department has one Professor and one Assistant Professor with PhD and four

25

Lecturers with MSc/ M Phil. The Mathematics Department has one Assistant Professor and six Lecturers, all with MSc/ M Phil. The Department of English has one Assistant Professor and three Lecturers, all with MA/ M Phil. The faculty is making good use of the newly created Language Laboratory. There are no special strengths in these Departments which have to provide supporting but very important basic learning and grooming in foundation courses. GCT has no Humanities/ Social Science faculty.

Closed Door Meetings (Summary of Response)

Meeting with Parents (September 27, 2008)

The visiting Team had a meeting with the parents of the students on September 27, 2008. About thirty parents had assembled for the meeting in which only the parents and the Visiting Team participated. The general impression that the Visiting Team got from the parents was that they were reasonably satisfied with the education and training their wards were receiving, the discipline that is maintained in GCT, the attention the College pays for the welfare of the students and the placement activity of the College. A summary of the suggestions made by the parents on a positive note is given below.

1. Course contents need revision
2. Learning should be innovative and communication skills of students need improvement
3. The project work should have more focus to provide practical experience.
4. Classroom facility needs improvement and more space.
5. Staff stagnation due to the Government procedures needs to be looked into
6. Placement be given greater push by inviting more Companies.
7. Students should be given proper guidance and career counseling.
8. Hostel facility for the first and second year students are not good and need improvement.

Meeting with Alumni (September 27, 2008)

The Visiting Team had a meeting with Alumni in which about 25 Alumni participated. The Alumni gave a general impression that they felt a bond with their alma mater and were interested in the welfare and progress of GCT. The Alumni made suggestions for the benefit of the College, which are summarized below:

1. The bond between GCT and Alumni should be strengthened and the two should have more interactions.
2. There should be adequate Industry-Institute interaction for which student projects should also play an active role.
3. The College should have active channels for sharing knowledge with research and other academic institutions.
4. More time should be allocated to practice oriented training of students, which will enhance their employability.

- 27 -
5. Courses with practice orientation, such as 'Power Systems' be given space in the undergraduate syllabi.
 6. Practicing Engineers should be associated to deliver lectures as supplement to teaching.

Feedback from Students

The overall impression gathered by the Visiting Team from the floor response in the meeting with the students in which about 50 students, mostly of final year, were present, was that they were generally happy and satisfied with their pursuits of higher education in GCT. The views and suggestions made by the students are summarized below:

Students pointed out the shortage of faculty although a final year ECE student opined that despite the shortage, the faculty is doing a good job in his programme. One BE (Production Engineering) final year student expressed satisfaction on the conduct of tutorials. A final year B.E. (Mechanical Engineering) student suggested the need for student projects with strong industrial orientation. A student pointed out that the laboratory facilities in EEE were good. Students generally expressed satisfaction with the Library facilities and service, although they felt that more books should be added. Students appeared quite satisfied with the placement efforts made by GCT but a suggestion was made for institutional programmes for personality development. The general opinion was that facilities for campus interviews need improvement and at the same time, the class room facilities also need improvements. Students suggested that Internet facility should be enlarged and connectivity in the Hostels be provided. They seemed happy with the facilities for sports and games, medical facilities and banking facility on the campus.

Feedback from Non-teaching Staff

The members of the Non-teaching staff who came for the meeting with the Visiting Team, were somewhat reserved in expressing their views. They, however, pointed out that they were not getting due opportunities for timely promotions and they have very little opportunities for training to improve their knowledge and skills. They generally expressed satisfaction with the management of GCT and with their working environment.

Strength and Weaknesses of the Programmes Assessed 2005 Evaluation

The following four undergraduate programmes of GCT were accredited by NBA in March 2005, each for a period of three years.

1. B.E. Mechanical Engineering, (ME)
2. B.E. Civil Engineering, (CE)
3. B.E. Electrical and Electronics Engineering, (EEE)
4. B.E. Electronics and Communication Engineering, (ECE)

29

The weaknesses of these programmes as communicated to GCT by NBA in March, 2005 are summarized in *Annexure 3*. The summary gives the weaknesses indentified programme-wise in the list (a) and general weaknesses common to the four programmes in the list (b) for ready reference.

The strengths and weaknesses in the eight programmes as assessed by the Visiting Team are compiled below.

September 2008 Evaluation

Programme 1

B.E., Production Engineering (PE)

(a) Strengths

1. Although the number of faculty members is less than the norms prescribed by AICTE, the existing faculty members are well qualified.
2. All the seats are filled at the time of admission.
3. Student feed-back is taken regularly and analysed.
4. Reprographic facility is good.

(b) Weaknesses/ Areas of Concern and Improvements Needed

1. Faculty-student ratio is low (1:36), acute shortage of faculty.
2. Only nominal budgetary allocations are available for R&D in the Department.
3. No activities for sponsored or consultancy projects. None are even being considered.
4. No faculty member has so far published a single paper in an international journal.
5. No facilities for learning beyond the syllabus prescribed by the affiliating University.
6. Modern teaching methods and techniques need to be used in the class-rooms.
7. Continuing education activities need augmentation.
8. Better coverage of syllabi in the class-room is needed; presently 70 to 75% is covered.
9. Quality of assignments given to the students in the class needs distinct improvement.
10. Quality of the projects carried out by students needs improvement.
11. Students should be encouraged to develop computer culture as an integral part of their learning process. The wi-fi facility should be enabled.
12. More books are required in the Department Library; presently it exists only for name sake.
13. More laboratory equipment are needed to satisfactorily meet the requirements of the course.

14. Obsolescence of equipment in laboratories and in the workshop needs to be removed.
15. Equipment recently purchased (Foundry, Welding, CAM Laboratory and Metrology) should be more effectively used.
16. Inadequate laboratory space.
17. Number of licensed software very inadequate.
18. Students are to be motivated to have better performance in competitive examination.

Programmes 2

B.E., Electronics and Instrumentation Engineering (EIE)

(a) Strengths

1. The leadership in the department is good.
2. One faculty has Ph.D. qualification and five have M.Tech. qualification, which can be considered as fairly good.
3. Budget is adequate.
4. Laboratories are very good and well equipped.
5. Examination results are good.
6. Good information access facility.
7. A good number of students carry out hardware projects.
8. Student feed-back system is in place.
9. Placement on graduation is good.

(b) Weaknesses/Areas of Concern and Improvements Needed

1. Faculty does not get promotion opportunity resulting in stagnation.
2. Faculty strength is low. Faculty-student ratio is poor and not as per AICTE norms. Sanctioned posts of one Professor and one Lecturer are lying vacant for a long time.
3. No R&D, Testing and Consultancy.
4. Only a few publications in Journal.
5. Postgraduate students are engaging theory and laboratory classes.
6. Many teaching hours are engaged by invited and guest Lectures.
7. Knowledge contents beyond syllabi need to be improved.
8. Participation of industries in student projects is to be improved.
9. Entrepreneurship development needs more attention.
10. Students should be encouraged to take competitive examinations in larger number.
11. Class-rooms are somewhat crowded.
12. Laboratories are housed in sheds.
13. Skill up-gradation of talented staff should be improved.

Programmes 3

B.Tech., Information Technology (IT)

(a) Strengths

1. Qualified, excellent faculty, active and dedicated.
2. Good momentum for externally funded projects and collaborations.
3. Good number of research scholars in the programme.
4. Good effort for teaching-learning planning.
5. Digital class-rooms and video conference-room.
6. Innovative class committee concepts with students participation.

(b) Weaknesses/Areas of Concern and Improvements Needed

1. Number of faculty members very low; Faculty-student ratio very poor.
2. Cadre-ratio not fully implemented.
3. Very low remuneration for guest faculty.
4. More tutorials are needed for the course units.
5. Weightage of 80% for End-semester Examination is too large.
6. No initiatives to upgrade skills of support staff.
7. In absence of qualified technicians, unqualified laboratory staff is used as technicians.
8. No regular R&D budget for in-house research.

Programmes 4

B.E., Civil Engineering (CE)

(a) Strengths

1. Faculty qualifications conforming to AICTE norms.
2. Faculty is dedicated and sincere, young and dynamic.
3. Continuing education programme activity is good.
4. Consultancy/Testing is good.
5. Learning beyond prescribed syllabi is included in the courses
6. Academic results are good.
7. Placement is very good.
8. Good electric power back-up.

(b) Weaknesses/Areas of Concern and Improvements Needed

1. No properly qualified teacher in the area of Surveying.
2. No funds for in-house R&D.
3. The faculty should organize Symposia/ Conferences/ Workshops/ and Seminars more frequently.
4. Opportunity for attending conferences abroad is lacking.
5. No publication in international journals abroad.
6. No sponsored projects.
7. Consultancy in geotechnical engineering is only of laboratory testing.
8. The syllabi need updating.

- 9. More participation of and interaction with industry are required.
- 10. More site visits for the students need to be organised.
- 11. Development of entrepreneurship is lacking.
- 12. Collaboration with industry is weak in students project activity.
- 13. The question papers should be more problem-solving oriented.
- 14. A separate Highway Engineering Laboratory is required.
- 15. Library timings require extension beyond 6:00 P.M. and on holidays.

Programmes 5

B.E., Mechanical Engineering (ME)

(a) Strengths

- 1. Young and enthusiastic faculty keen on research and pursuing higher educational qualification.
- 2. Three post-graduate programmes are run by the Department which help the research ambience and research output.
- 3. A very well organized Central Workshop managed by the Department with a good number of special purpose machines.

(b) Weaknesses/Areas of Concern and Improvements Needed

- 1. A number of faculty positions have remained vacant for a long period.
- 2. No consultancy and sponsored research.
- 3. Interaction with industry is weak and needs much improvement.
- 4. Professional society activities by the faculty and students should be enhanced.
- 5. The non-recurring budget allocated to the Department is too small for its development.
- 6. The laboratory space is inadequate.
- 7. Many of the laboratories are old-fashioned and require revamping.
- 8. The equipment and experimental set-ups in the laboratory are not maintained properly.

Programmes 6

B.E., Electrical and Electronics Engineering (EEE)

(a) Strengths

- 1. Motivated and dedicated faculty.
- 2. Student intake is of good quality.
- 3. Student projects are good.
- 4. Academic results are good.
- 5. Laboratory equipment are well utilized.
- 6. A good number of licensed Software is available.
- 7. Appreciable efforts observed in Continuing Education.
- 8. Allocated budget is fully utilized.
- 9. Adequate power backup and good reprographic facility.

10. Placement record is satisfactory.

(b) Weaknesses/Areas of Concern and Improvements Needed

1. Faculty-student ratio is poor, shortage of faculty.
2. Promotions are delayed, stagnation in career advancement.
3. Budget for in-house R&D is poor.
4. No sponsored and no testing and consultancy projects.
5. Cadre ratio is not properly maintained.
6. Some important theoretical subjects are taught by P.G. Students.
7. Vacancies in non-teaching posts have not been filled up for the last many years.
8. Promotional policies for non-teaching staff are not clear.
9. No Diploma qualified supporting staff in the Laboratories.
10. Inadequate non-recurring budget.

Programme 7

B.E., Electronics and Communication Engineering (ECE)

(a) Strengths

1. Qualified and dedicated teachers.
2. Several teachers are acquiring higher qualifications and have research publications.
3. Teaching and learning process is good/effective.
4. Students intake is very good.
5. Student projects are well executed and well monitored.
6. Adequate infrastructure, good laboratories which are well equipped and well maintained.
7. Academic results are very good.
8. Placements are very good.

(b) Weaknesses/Areas of Concern and Improvements Needed

1. Inadequate number of faculty members to handle one undergraduate and two postgraduate programmes in the Department.
2. No sponsored R&D projects.
3. Interaction with industries needs improvement.
4. Student projects with Hardware orientation need encouragement.
5. Support staff is stagnating; promotional avenues are required for them.

Programme 8

M.E., Structural Engineering (Postgraduate, SE)

(a) Strengths

1. Dedicated young and qualified faculty
2. Good intake quality of students; nearly all the seats are filled up.
3. Good academic performance of the students.