

DRAFT REPORT
ON
INSTITUTIONAL ACCREDITATION

OF

Shri Sant Gajanan Maharaj
College of Engineering

Shegaon, Maharashtra

Visit dates

November 26th - 28th, 2002

National Assessment and Accreditation Council
Bangalore

PEER TEAM REPORT (DRAFT)

Shri Sant Gajanan Maharaj College of Engineering will be completing 20 years in another 9 months. This is a time nearly enough to establish and grow to fulfill the objectives and vision of an academic institution in the field of engineering and technology. The state of Maharashtra has seen a lot of upsurge in technical and medical institutions in the last 2-3 decades and so each of them face good competition in attracting good students in their fields of studies and courses.

In this background, the College volunteered to submit for Assessment & Accreditation process of the National Assessment and Accreditation Council (NAAC), Bangalore, and submitted its Self-Study Report(SSR). Subsequently, the Council constituted a Peer Team (PT) consisting of Prof. H.V.Tiwary, former Vice-Chancellor of Barkatullah University, Bhopal, as Chairperson, and Prof. Jagdish C. Bhatia, formerly professor, IIM, Bangalore, and Prof. K. Usha Devi, SASTRA, Thanjavoor, TamilNadu, as Members, to visit the institution and validate the SSR. The visit was for three days, 26th – 28th, November, 2002. The visit was ably coordinated by Mr. B.R. Manjunath, Academic Consultant, NAAC.

The analysis and findings of the Peer Team, in accordance with the guidelines and evaluation criteria of the NAAC, are given in the following pages.

The engineering college offers courses of UG and PG that are need based. In addition, it offers technical certificates (14) and diplomas (3) courses; thus the total number of programs offered is 26. To offer this large number of courses, there are 52 permanent and 28 temporary teachers. Technical and administration staff are adequate. With the present enrolment of 511 students, the teacher/students ratio is acceptable and it is a good sign

that the enrolment of the students has gradually increased in the last five years as it reflects, in some way, the reputation of the institution in the competitive field of engineering education.

The impact of the presence of the spiritual Guru, Shri Sant Gajanan Maharaj, on the academic ambience in the campus and the campus life as a whole, is conspicuous.

CRITERION 1: CURRICULAR ASPECTS

The college was established in 1983 with two graduate level courses in electrical and electronics engineering. Later on mechanical engineering was added. In 1989, computer engineering course was started. This was a laudable effort to meet the growing needs of professionals both in hardware and software. The college has done extremely well in this regard. The need for professionally trained managers in a developing country like India cannot be overemphasized. The college has tried to make contribution in this aspect by starting an MBA program in 1994. In a rapidly changing scenario at the national and international level, not only effectiveness but bare survival of an institution depends on its capacity to visualize and project future demands in a realistic and scientific manner and adopt itself to changing requirements, needs and demands for different category of professionals. This necessitates promptness in diversifying to bridge the gap between supply and demand. The college may seriously consider making appropriate efforts in this regard. It is learnt that getting approval for a new course is a time consuming process and takes between three to five years. However, it is felt that a proposal for new courses with concrete and convincing evidence could certainly shorten this process.

The course curriculum is designed and prescribed by the University and the college does not appear to have much flexibility to make significant changes. The college has

representation on the Board of Studies for each course and faculty of Engineering & Technology, and faculty of Commerce and is in a position to influence the revision of courses to meet the changing needs of industry and some effort has been made in this regard. The college can play an important role in this regard if it studies the technological changes and the requirements of industry on a continuing basis. The students, by and large, have to follow a fixed curriculum and have limited option to study subjects of their interest.

All professional courses are necessarily career oriented. The aspect which needs to be analyzed is whether the graduates of this college are able to achieve their professional goals through placements commensurate with their qualifications and training. The college is constrained by its location to attract employers for campus recruitment and this needs to be remedied by developing appropriate rapport and linkages with the employers.

The post graduate programs in engineering are available to a limited extent in electrical and electronic branches and an MCA has been started recently. These programs need to be strengthened and extended to other areas in order to make optimum utilization of available resources.

The college has a unique feature of imparting value based education and considerable effort is made to inculcate discipline, spirituality and integrity among the students and employees through a number of extra curricular activities. In this age of globalization, competitiveness and consumerism wherein the pressure and stress levels among all sections of society are very high, this is much needed and commendable effort. The impact of such programs need to be scientifically documented, popularized and replicated in other institutions of learning. The college can play an important and pioneering role in this direction.

CRITERION 2: TEACHING, LEARNING AND EVALUATION

The students are selected for admission into the various courses through special entrance tests, interviews and academic record. These procedures are evolved at the state level though considerable weightage is given for candidates belonging to this region. A small proportion of students belong to weaker sections of society and remedial courses are needed to bring them at par with other students. The college is making some effort in this regard by offering remedial courses and extra classes. There is also a need to improve oral and verbal communication skills of the students by offering special courses in this area to improve their marketability, competitiveness and future careers. Any effort made by the college in this important area will be highly beneficial and is likely to bring significant results.

The college uses a wide variety of teaching methods and techniques though emphasis primarily remains on didactic methods. The teaching is, by and large, based on text books prescribed in the curriculum. Since it is incumbent on the teachers to complete the courses within a limited time frame and improve the success rate of the students in the university examinations, there is little flexibility for the teachers to experiment with innovative techniques. The experience with the industry, through linkages and research activities by the faculty, could bring about perceptible changes in the quality of teaching, both at the graduate and post graduate level. This needs to be seriously looked into and concrete efforts made to strengthen these areas. Further, the linkages of the college with other institutions at the national and international level needs to be strengthened.

Majority of the faculty members have post-graduate qualification with a few having doctorates from prestigious institutions. However, there are a few of them with graduate (B.E) degrees. The inbreeding appears to be quite apparent and a significant proportion of

faculty members received higher education from this college or other institutions in the vicinity. With improved salary structure and facilities provided by the college in terms of housing and other amenities, it would not be difficult for the college to attract highly qualified and experienced faculty. A number of faculty members have been attending short duration faculty development programs at other institutions and this is a regular feature. However, no guidelines or procedures appear to have been laid down to grant study leave and other incentives to the faculty for their professional development. The evaluation of the teachers is done by the students through a structured proforma which is sufficiently elaborate, and the outcome analyzed and utilized for teacher improvement.

CRITERION 3: RESEARCH, CONSULTANCY AND EXTENSION

A few faculty members are genuinely interested in research and have produced valuable outputs but the college has yet to imbibe a culture to encourage promotion and sustenance of research in relevant fields of knowledge. A major constraint appears to be its rural location and lack of linkages with industry and other professional institutions at the national and international level. The rural setting of the college, in fact, places it in a unique position to carry out research appropriate to rural conditions and develop innovative technologies. There are a large number of non-governmental organizations (NGO) working in diverse field of activities. The identification of successful NGOs and establishing linkages with them can enrich teaching and research activities at the Institute. The college has received large funds from AICTE for upgrading their facilities specifically hardware. The college has not been provided research funds by sponsoring agencies to make optimum utilization of upgraded facilities. The development of good research proposals requires expertise for which training is available in some institutions in India. It will help improve

skills of the faculty in this area if they are encouraged to participate in these workshops/training programs.

The students in various courses, both at the graduate and undergraduate level, are required to carry out projects. These projects are of short duration and are not expected to be of high standard. However, they do provide valuable experience to the students and are helpful in developing an analytical bent of mind.

The faculty members, by and large, are not engaged in consultancy work relevant to the area of their expertise/specialization. The possibility needs to be seriously explored. This will help generate revenues for the college, which could be appropriately shared by the college and the faculty concerned. In addition, vigorous efforts are needed to organize workshop & training programs, specifically for rural based industries and NGOs. These programs, apart from improving the visibility of the college, would augment financial resources of the institute.

With a few exceptions, the faculty members have not published in professional/referred journals. This area needs to be encouraged and strengthened.

The college has outreach programs like NSS, NCC and other socially relevant programs in which there is active participation of faculty and the students. These programs sensitize the students to the actual living conditions of majority of our population living in the rural areas.

The opportunities available in the college and the facilities upgraded through various grants have, by and large, remained under-utilized due to inadequate effort in conducting research programs and organizing workshop/training programs and engagement in consultancy projects. This appears to be the weakest link and concerted efforts are required

to bring about attitudinal and environmental change to strengthen these areas. The faculty, showing interest in these programs, should be given due recognition. This will not only improve the academic standards but will also be helpful in generating funds and making the college visible at the national and international level thereby improving placement and career prospects of the students and alumni.

CRITERION 4: INFRASTRUCTURE AND LEARNING RESOURCES

The physical facilities at the college are excellent and are not only adequate for current requirements but are enough to accommodate future programs. In fact, these facilities are under-utilized and it would be important to initiate new activities/programs to make optimum utilization of these facilities. However, the facilities are very well maintained and the environment is very congenial for academic work.

All academic departments, administrative section and library have adequate computer and internet facilities. However, the usage of internet facilities for surfing relevant latest literature, either for teaching and/or research work, appears to be minimal. Although it would be desirable for graduate and post graduate students to surf and download materials related to their respective discipline, the students primarily depend on text books prescribed by the university for various papers because of strong perception that reading text books would be adequate to pass the university examination with good marks. The usage of internet facilities by the students needs to be encouraged by making more time available to them and, possibly, linking various hostels with internet facilities.

The books and journals available in the library are adequate for graduate students. However, there is a need to provide for more reference books and international journals

for facilitating research activities. This limitation can be overcome if internet facilities are made available to individual researchers and they are motivated to make use of these facilities to download latest literature related to their work.

The laboratories in different departments are very well equipped and are extensively used by the students in their practical work. It would be useful if the faculty and post-graduate students are involved in intricate experiments to develop new technologies and get them patented. This could possibly be a great motivating force for research work and also for generating funds for the college.

The students and faculty are provided with health facilities in a clinic operated by a qualified male doctor. Although medicines are provided free of cost and facilities exist for referring patients requiring specialized care, the attendance in the clinic is only marginal. This clearly indicates that the students, faculty and their families are able to maintain good health due to yoga training and spiritual education. It is evident that the dictum 'prevention is better than cure' is validated in this institution and it would be useful if the effect of this can be documented through scientific work and replicated in other institutions.

There are separate hostels and messes for male and female students and these are very well maintained. An overwhelming majority of the students are accommodated in these hostels. There is also a guest house for visiting faculty, other visitors like parents of the students. It is adequately furnished and is well maintained.

CRITERION 5 : STUDENT SUPPORT AND PROGRESSION

Students results are good, consistently above 80%. Considering the intake quality, the institution's achievement in this regard is noteworthy. Students have very good regard towards the institution. Students are well satisfied. The college has a good alumni association. A cross-section of the alumni who interacted with the Team are very happy with the institution and appreciated the unique education they got in this institution through yoga, meditation classes which moulded them into good individuals and developed self-confidence in them to face the life situations. Parents convention organized annually is a good step.

Over 80% of the outgoing students take up employment while the remaining opt for further study in India/ abroad. Many go into their parental business. However, in the face of stiff competition in the employment arena, the Training & Placement activity needs to be strengthened. The T & P department may provide training in communication skills to develop human resources skills of students to enable them to effectively compete with urban institutions. Vacation training to students have to be encouraged and T&P department may work towards this more actively. Though students' extra-curricular activities are encouraged, co-curricular activities have to be given more importance in this world of changing technology. Students Technical Forum may arrange more technical meets for the students with industry experts. The fact that industry orientation to students needs improvement is also expressed by the alumni. Students may be encouraged to take up industry-related projects. Quality of student projects also needs be improved. Independent study and projects need to be encouraged. Each student may be given an opportunity to do the laboratory work individually, instead of as a part of a team, to enable him/her to acquire independent understanding and to cultivate competitive spirit.

CRITERION 6 : ORGANIZATION AND MANAGEMENT

The college is run by the Sant Gajanan Maharaj Sansthan and the management is found to be dedicated and committed to the cause of higher education. The college management has been making sincere efforts to develop the institution. There is a service-oriented and dedicated staff community in general.

A performance appraisal scheme is in force for teaching staff. The self-appraisal scheme for the faculty and non-teaching staff is good. There is adequate internal coordinating mechanism.

Staff strength needs improvement. Student-faculty ratio is rather high.. Management may make efforts to appoint more qualified staff members. The college may invite visiting professors from IIT Mumbai /NIT Nagpur to aid teaching in ME classes. Qualified senior faculty members are somewhat inadequate in the engineering departments, especially where the masters degree program is also there. AICTE's visiting professor scheme may be utilized to supplement the quality of teaching. The college may consider appointing retired qualified faculty to strengthen the human resources. Alternatively, the college may also consider the EFIP (Early Faculty Induction Program) of the AICTE to strengthen the faculty of the departments like CSE department, where there is a dearth of ME graduates. The sanctioned budget is not fully utilized by the departments, for example, in CSE department infrastructure is rather not adequate as there are a large number of students in the department. Funds may be effectively utilized to augment the infrastructure here. Inbreeding of faculty is in high percentage. The management may focus attention on this to bring in faculty with diverse backgrounds to this institution for further improvement. The MCA, being a PG program, requires more number of laboratory hours, and may be separated from the CSE department. Both external and internal financial auditing are

practiced by the college. However, the Stock register maintenance procedures may be improved in the departments.

The very cordial management-staff-student relationship that prevails in the college may be said to be a key factor in enhancing the academic ambience.

CRITERION 7 : HEALTHY PRACTICES

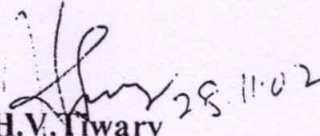
Institution has been working with definite mission and goals. Social and rural development is one of its objectives which has been well attended to. The college has several healthy practices. Among them, the following deserve mention:


1. Submission of the institution to NBA Accreditation and ISO certification process.
2. A host of short duration courses to supplement main courses so that the chances of employability of students are enhanced
3. The scent of spirituality that is preserved on the campus aiding total personality development
4. Total discipline in that ragging is unheard of in this institution; the respective hostel wardens staying in the hostels helps students in many ways
5. Multifarious activities of the faculty, particularly in spiritual and extension fronts
6. Institutional belongingness feeling that is strengthened by regular use of uniforms for both staff and students
7. An active SPIC-MACAY chapter that helps bring down the stress levels resulting for various reasons
8. High degree of cleanliness throughout the campus

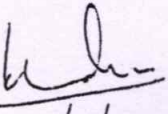
9. Value-based orientation that underscores all educational pursuits on the campus
10. Excellent interpersonal relationships among all the campusites
11. Enabling leadership of the head of the institution.

The Peer Team opines that, in the light of the visit and the three-day long interactions which enabled it to gain an insight into all facets of campus life, this institution has immense potential to evolve into a model institution in professional education in private sector in not too distant future.

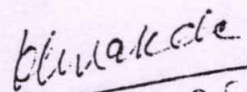
The Peer Team wishes to record its appreciation for the warm cordiality and hospitality shown by one and all throughout the visit. The Team wishes the institution success in all its endeavors in realizing the dreams of its founders.

1) 
Prof. H.V. Tiwary 28/11/02

2) 
Prof. Jagdish C. Bhatia

3) 
Prof. K. Usha Devi
28/11/02

I agree with the reports


Head of the Institution 28/11/02
PRINCIPAL
Shri Sant Gejanan Mahara,
College of Engg. Shreegan



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद्

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

*The Executive Committee of the
National Assessment and Accreditation Council
on the recommendation of the duly appointed
Peer Team is pleased to declare the
Shri Sant Gajanan Maharaj College of Engineering
Shegaon, affiliated to Amravati University, Maharashtra as*

Accredited¹

at the B⁺ level².

(among the Affiliated / Constituent Colleges)

Date: March 21, 2003



Umesh Chandra
Director

¹ This certification is valid for a period of five years with effect from the academic year 2002 - 2003.
² An institutional score (%) in the range of 55-60 denotes C grade, 60-65 - C⁺ grade, 65-70 - C⁺⁺ grade, 70-75 - B grade, 75-80 - B⁺ grade, 80-85 - B⁺⁺ grade, 85-90 - A grade, 90-95 - A⁺ grade, 95-100 - A⁺⁺ grade (upper limits exclusive)

Quality Profile

Name of the Institution : Shri Sant Gajanan Maharaj College of
Engineering

Place : Shegaon, Maharashtra

Criterion	Criterion Score (Ci)	Weightage (Wi)	Criterion X Weightage (Ci x Wi)
I. Curricular Aspects	70	10	700
II. Teaching-learning and Evaluation	75	40	3000
III. Research, Consultancy and Extension	50	05	250
IV. Infrastructure and Learning Resources	85	15	1275
V. Student Support and Progression	80	10	800
VI. Organisation and Management	90	10	900
VII. Healthy Practices	90	10	900
		100	$\Sigma C_i W_i = 7825$

$$\text{Institutional Score} = \frac{\Sigma C_i W_i}{\Sigma W_i} = \frac{7825}{100} = 78.25$$

Isabikar
Director