

**External Academic
&
Administrative Audit
from 2015-16 to 2017-18**



Nagar Yuwak Shikshan Sanstha's

Yeshwantrao Chavan College of Engineering

(An Autonomous Institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

(Accredited 'A' Grade by NAAC with a score of 3.25)

Preamble :

Yeshwantrao Chavan College of Engineering (YCCE), Nagpur, established in 1984 by Nagar Yuwak Sikshan Sanstha, a registered society, is a self-financed autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and approved by the All India Council for Technical Education, New Delhi, Director of Technical Education, Maharashtra State. YCCE has become the first self-financed engineering college to acquire "Autonomous Status" in Central India, from academic session 2010-11.

YCCE is located at hilltop encompassing a sprawling area of 14 acres, with actual built up area of 37040.72 Sq.m. The college was started with an aim to impart quality technical education to the students aspiring for career in engineering and technology. It was started with the U G Programs, B.E. in Production Engineering, Construction Engineering (Civil Engineering) and Electronics Engineering each with intake of 60. The college has seen gradual increase in intake, addition of new UG and PG programmes in engineering. Presently, college offers Nine (09) UG engineering programmes, Twelve (12) PG engineering programmes. All the departments are approved centers for higher learning and research by RTM Nagpur University to offer doctoral degree (Ph.D.).

Since its inception college authorities have been taking sustained efforts for its all-round development in the technical education. All UG engineering programmes of the college are accredited and re-accredited since 2003 by National Board of Accreditation, New Delhi. Presently Three U G Engineering programmes Computer Technology, Electronics Engineering and Information Technology are accredited for two years (w.e.f. 04/02/2014) by National Board of Accreditation, New Delhi.

The following expert committee conducted the Academic and Administrative Audit (AAA) in on 24th and 25 August 2019.

- 1. Dr. O.G. Kakde – IIT, Nagpur**
- 2. Dr. A.G. Keskar – VNIT, Nagpur**
- 3. Dr. N.C. Shivaprakash – IISc, Bangalore**

The committee went through ATR of previous audit and expressed their satisfaction on ATR report. The committee followed schedule given by college for this audit which includes presentation by the Principal, Dean (Academic Matters), Controller of Examination, HoD's, and First Year BE Coordinator, interaction with faculty members, inspection tour of special facilities created and detailed information report about the institution and activities conducted.

The committee went through the SWOC Analysis presented by the Principal and given their suggestions for its modifications. The modified SWOC Analysis as per observation of Expert Committee is given below:-

SWOC ANALYSIS: -

Strengths:

- Adequate infrastructure and conducive T-L environment
- Preferred institution for engineering education in the region
- The academic autonomy conferred by UGC in 2010.
- NBA accreditation/reaccreditation of UG programmes since 2003
- Recognition as research centre by RTM Nagpur University for Doctoral (Ph.D.) and M.E. (by Research) programmes
- Restructured curriculum of UG and PG programmes to suit the current industry needs.
- Good placement record
- MoU_s with Leading Universities in USA, UK, Malaysia & reputed Indian Institutions
- Research culture and good academic ambience
- Industry aligned professional elective courses offered by MNC's like Infosys Pune, and Globallogic, Nagpur

Weaknesses:

- Lower percentage of faculty members with Ph.D. qualification
- Industry - institute interaction is low, because of limited number of industries in the vicinity.
- Less number of quality research publications
- Consultancy work in collaboration with national agencies and industries needs improvement.

Opportunities:

- To explore benefits of funding agencies for strengthening laboratories with advanced research facilities
- To improve industry-institute linkage for quality students' projects and industrial trainings to the student to hone the practical skills
- To develop facilities and consultancy for revenue generation
- To produce technically competent manpower to cater the needs of the industries by offering industry aligned courses
- To increase the quality of research publications

Challenges:

- Retention of qualified and competent faculty
- Cope up with increasing competitive employment scenarios in professional organizations.
- Mushroom growth of engineering institution
- Non-availability of faculty with industrial exposure
- Campus Placement in core companies

Recommendation of Previous Audit conducted on 30th & 31st October 2013

Recommendation:

1. Academic Processes – BoM, Academic Council / Bos satisfactory. All of these are functional.
2. Academic Regulations: Regulations are fine. The examination system needs further refinement.
3. Guidelines / Process for students who have been re-admitted, re-registered, failed in previous attempts, Improvement of CGPA is more than satisfactory.
4. Formation of Statutory Committees, Terms of Reference, Meetings, Minutes of meeting & action taken: Excellent.
5. Curriculum Development Process: Many experts and other stakeholders have been consulted. They have contributed to the curriculum development very well.
6. PEO Development process & quality of PEO developed, PO Assessment I Attainment Process & its Implementation, Mapping of CO - POs - PEOs: Considerable work has been done on defining PEOs, POs, cos . However, some more work needs to be done to bring them up to date and in full conformity with the modern practice as per the requirement of Accreditation.
7. Mechanism to monitor TLP based on teachers document at the end of course (Learners Engagement document): The system is in place, but the monitoring process should consider student's feedback as well.
8. Question Paper Setting Process, with Model Answer, Question Paper Pattern, Question Paper Moderation Process: The processes have been defined, It is suggested that a greater flexibility is required in the question paper pattern.
9. Grading Mechanism:
 - OK. Needs to blend two approaches.
 - The concerned teacher shall submit grades to Result Review Moderation Committee [RRMC]. The RRMC will get two inputs, one from software and second from the subject teacher [in case of multiple teachers for one subject all should decide grades collectively]. RRMC should analyse both the inputs and take appropriate decision in consultation with the subject teacher.
10. Overall Implementation of Autonomy
 - Over the last seven years, the College has progressed very well on the autonomy front.
 - Their academic programmes show a marked improvement.
 - We hope that the College will continue to progress and become Premier engineering

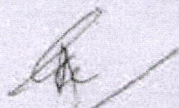
Action Taken Report :

SN	Observations of the committee in preceding report	Section/ Functional Head concerned	Action Taken
1	Academic Regulations: Regulations are fine. The examination system needs further refinement.	Principal, CoE	COMPLIED Examination reforms are introduced including digitization and on screen valuation.
2	PEO Development process & quality of PEO developed, PO Assessment I Attainment Process & its Implementation, Mapping of CO - POs - PEOs: Considerable work has been done on defining PEOs, POs, cos . However, some more work needs to be done to bring them up to date and in full conformity with the modern practice as per the requirement of Accreditation.	DAM, HoDs	COMPLIED
3	Mechanism to monitor TLP based on teachers document at the end of course (Learners Engagement document): The system is in place, but the monitoring process should consider student's feedback as well.	DAM, HoDs	COMPLIED
4	Question Paper Setting Process, with Model Answer, Question Paper Pattern, Question Paper Moderation Process: The processes have been defined, It is suggested that a greater flexibility is required in the question paper pattern.	Principal, CoE	COMPLIED

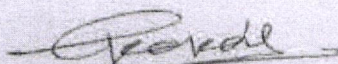
Observation and Recommendation of the AAA Expert Committee for the Audit conducted for the AY 2015-16 2016-17 & 2017-18 on 24th & 25th August, 2019

Recommendation:

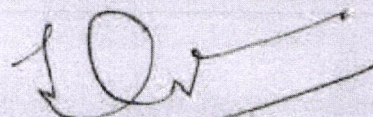
1. Maximum Weightage should be to MSE (60%) and to ESE (40 %) examination.
2. The detention of students shall be based on the number of lectures as prescribed by the SoE and in syllabus rather than actual number of lectures conducted by the faculty
3. For direct second year admitted students, the mid semester examination may be scheduled as conveniently decided by the DAM so that they get appropriate time for preparation of the examination
4. Average students' performance in GATE and other all India level examinations is to be improved.
5. Financial support / reimbursement of registration for paper presentation , workshop and training for student at IIT and NIT may be provided
6. More industry based subjects to be incorporated in the SoE
7. More emphasis may be given on Practical Knowledge in teaching learning process
8. Strategy for digital classrooms with networking and projection facilities should be implemented.
9. Setting question paper of ESE from EQB may not be suitable for all the subjects and hence should not be mandatory.
10. Question paper format require modification. Cut off for subject not to be very low.
11. Paper pattern should be flexible so that course teachers could design best possible paper for that course.
12. Preparation leave of at least one week should be given before start of ESE. Admit card/ Hall Ticket should be distributed to students at least one week before start of ESE.



Dr. A.G. Keskar
Professor VNIT, Nagpur

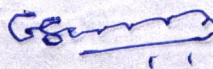


Dr. O.G. Kakde
Director, IIT, Nagpur



Dr. N.C. Shivaprakash
Professor, IISc, Bangalore

The Management and faculties of YCCE Nagpur place on record their sincere thanks to AAA Committee for providing valuable recommendations and suggestions. These recommendations and suggestions shall be implemented in full academic spirit in the forthcoming sessions.



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