

**Guru Gobind Singh Foundation's  
Guru Gobind Singh College of Engineering and  
Research Centre, Nashik**

NAAC - IQAC

Report No: IQAC/

Date: 27/08/2022

**ACADEMIC AND ADMINISTRATIVE AUDIT**

**DEPARTMENT OF Electrical Engineering**

**2021-2022**

(Provide information for the A. Y. 2021-22 ONLY)

1. Name of the Department: Electrical Engineering
2. Year of establishment: 2013
3. Programme offered: UG, PG, Ph.D. etc.

Year	UG	PG	Ph.D.
2013	Electrical Engineering		

4. Number of Certificate / Diploma Courses introduced during the academic year

Name of the Certificate Course	Name of the Diploma Courses	Date of introduction and duration	Focus on employability/ entrepreneurship	Skill development	No of students enrolled	
					Cert.	Dip.
AC-DC Drive	NA	3.9.2022, 4 Week		Yes	50	
LV Switch Gear	NA	3.9.2022, 4 Week		Yes	50	
Auto Electrical	NA	3.9.2022, 4 Week		Yes	20	

5. Number of New Programmes / Courses introduced during A.Y. 2021-22: NIL
6. If yes please provide list: Nil

Programme	Programme Code	Ref of BoS meeting

Rajan V Patel	Asst.Prof	M.Tech	7	Regular
Nikhil H Mate	Asst.Prof	M.E	5	Regular
Tanmay J Bharambe	Asst.Prof	M.E	7	Regular
Shamal S. Dhamal	Asst.Prof	M.E	1	Regular
Sagar U Shinde	Asst.Prof	M.E	3	Regular
Vaibhav S Yendole	Asst.Prof	M.E	6	Regular
Rutika S. More	Asst.Prof	M.E	0.6	Regular
Nilima J. Bhamare	Asst.Prof	M.E	3.5	Regular
Dr. Rahul Agrawal	Asso. Prof	PhD	21	Regular
Shamal Dhamal	Asst.Prof	M.E	1.5	Regular
Vishakha Chavan	Asst.Prof	M.E	8.5	Regular
Dr. Sapana P Sonar	Asst.Prof	PhD	19	Regular

**14. No of Visiting Fellows/Teachers, Adjunct and Emeritus Professors, during A.Y. 2021-22 (Provide list indicating details of name, qualification and experience).**

NIL

**15. Percentage of classes taken by temporary/visiting faculty:**

Not Applicable

**16. Student Teacher Ratio:**

No of students (as per intake): 240

No of teachers: 12

Student Teacher Ratio: 1:20

17. Number of academic support staff (technical) and administrative staff sanctioned, filled and vacant:

Sr. No.	Posts	No of Sanctioned Posts	No of Appointment	Vacant
1	Laboratory Assistant	2	2	0
2	Clerk (office)	1	1	0
3	Peon	1	1	0

18. Information about research grants, projects completed and ongoing during the period of last 4 years

a) From National funding agencies (like UGC, CSIR, DST, DBT etc): Not Applicable

Sr. No.	Name of the Principle Investigator (Co-investigator)	Title of the Project	Funding Agency, Duration & date of sanction	Amount (in Lakh)	Remark (if any)

b) From International funding agencies (if any): Not Applicable

Sr. No.	Name of the Principle Investigator (Co-investigator)	Title of the Project	Funding Agency, Duration & date of sanction	Amount (in Lacs)	Remarks if any

19. Research facilities available in the department: Yes

Power Quality Analyzer, Thermal Analyzer, AC-DC Drive, LV Switch Gear, Auto Electrical

20. Research centre recognition received? (Yes / No): No

21. Publications:

Name of teacher	Title of the Paper	Journal Name, Issue, Vol, Year	ISSN	Web-link
Rajan Patel, Bhimrao Dabhade, Tanmay Bharambe, Rajendra Eknath Potdar	A Review on Power Quality Improvement by Artificial Neural Network Using Dstatcom in Industry	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT) Volume 2, Issue 2, February 2022	ISSN (Online) 2581-9429	

Harshal R Chaughule, Shamal S Dhamal, Rutika S More,	Cascaded H-bridge multilevel inverter topology with a smaller number of power electronic switching components	International Journal of Advanced Research in Science, Communication and Technology, Volume 2, Issue 2, pp. 238-243, February 2022,	ISSN Online: 2581- 9429	
Rajan Patel, Dipti Sonawane, Abhishek Jadhav	A Review on Smart Electrical Vehicle Charging Station,	International Journal of Scientific Research in Engineering and Management (IJSREM) Volume: 05, Issue: 09 , pp.- 1-3, Sept – 2021,	ISSN: 2582- 3930	
<b>Aniket Dusane, Gauri Dusane, Prof. Sunil More, Prof. Nilima Bhamare</b>	<b>Potential of Green Hydrogen with its Various Generation Methods</b>	<b>International Journal of Advance Research in Science and Engineering,</b> Volume: 11, Issue: 04 , pp.- 252-265, April – 2022,	(ISSN: 2319- 8354)	
Anuj Pandey, Bhimrao Dabhade, Harshal R Chaughule, Nikhil Mate	Power Quality Analysis of the institute - Guru Gobind Singh College of Engineering & Research Centre	International Research Journal of Engineering and Technology (IRJET), Vol.8. issue 12, dec. 2021, pp. 674-677	e-ISSN: 2395- 0056 p- ISSN:23 95-0072	
<b>Anuj Pandey1 Sapana Sonar2, Nikhil Mate3, Harshal Chaughule4</b>	<b>Implementation of Reliability Centered Maintenance For Transformer</b>	International Research Journal of Engineering and Technology (IRJET),  <b>Volume: 08 Issue: 10   Oct 2021, pp.-303-308</b>	e-ISSN: 2395- 0056 p- ISSN:23 95-0072	
Nilima Bhamare, Eqranaaz Saudagar, Gauravi Mhetre and Shraddha Aherrao	To Study, Analyse and Implement Automatic Load Sharing of Transformers Using Microcontroller	International Journal of Trend in Research and Development, Volume 9(2), pp-77-80, April-2022	ISSN: 2394- 9333 www.ijtr d.com	

Name of teacher	Title of the Book / Book Chapter	Publisher	ISSN/ISBN	Web-link

## 22. Details of patents Applied / Granted during AY:

Nil

23. Consultancy services provided, name of the teacher/s and income generated: NA

Sr. No.	Year	Name of the teacher	Nature of consultancy	Funds generated (In Lakh)

24. Details of teachers invited as resource persons for Refresher courses, Orientation courses, Seminars, Workshops, Conferences at national and international levels, Expert lectures etc. -

Sr. No.	Date	Name of the teacher	Details Program/WS/Seminar etc.	No of students benefitted
1	10.12.2021	Mr. Nikhil Gaikwad, Persuing MS in Germany	Renewable Energy & E-Mobility	48
2	13.1.2022	Mr. Swapnil Khairnar	Recent Technology in Electrical Engineering & Industrial Expertise	52
3	18.1.2022	Mr. Madhukar Dubey	Preplacement Talk on IP Protection	45
4	26.1.2022	Dr. Manaswi	To Understand the basics of Battery & its charging methods	65
5	22.1.2022	Mr. Mehul Wagh	To Undersatnd basics of Trasnformer, its parts and functioning.	100
6	05/04/2022	Prof. Dr. Sharad S. Dhamal	Fundamentals of Electrical Machines	38
7	12/04/2022	Vedanshu Patil	Incubation, Innovation and Startup	205
8	17/03/2022	Mr.Akshay Rasal	Breaking and protection Devices	60

25. Details of teachers participated in Refresher courses, Orientation courses, Seminars, Workshops, Conferences at national and international levels.(participant, presented paper, chaired the session)-

Sr. No.	Date (from-to)	Name of the teacher	Details
1	Feb 2022 (6 Days)	Mr. H.R. Chaughule	AICTE-ISTE program on "AI based conitioning monitoring of Electrical system"
2	7-11 Feb 2022	Mr.T.J.Bharambe	"Inculcating Universal Human Values in Technical Education"
3	14-19 Feb 2022	Mrs N.J.Bhamare	Effective Teaching Learning for OBE
4	14-19 Feb 2022	Mrs. Rutika More	Effective Teaching Learning for OBE
5	14-19 Feb 2022	Ms.Shamal Dhamal	Effective Teaching Learning for OBE

6	7-11 Feb 2022	Ms.Shamal Dhamal	"Inculcating Universal Human Values in Technical Education"
7	March 2022 (5 Days)	Mrs.NJB,Mrs.RSM,MR.BGD,Ms.SSD	Recent Trends in renewable Energy
8	March 2022 (2 Days)	Mrs.NJB,MR.BGD	Tools for Effective Teaching
9	April 2022	Mrs N.J.Bhamare	Electric Vehicle Technology
10	April 2022	Mr.R.V.Patel	Research Innovation and Emerging Advances in Electrical Engineering
11	12/04/2022	Prof. S.M.More	Session Chair for International Conference
12	June 2022	Mrs. Rutika More	Two week FDP on "Research Methodology"
13	June 2022	Mr. Rajan Patel	Two week FDP on "Research Methodology"
14	June 2022	Mr. Tanmay Bharambe	Two week FDP on "Research Methodology"
15	11-13 august 2022	Mr. Sunil M.More	Emerging trends in electrical vehicles & Renewable energy

26. Participation of teachers in various academic activities as members of committees at University level, State level, National level, International level bodies. (give details)- NA

Sr. No.	Date (from-to)	Name of the teacher	Details
	NA		

27. No of teachers appointed/nominated on Editorial Boards / Reviewer for Peer reviewed journal at university, state, national and international levels.

01- Dr. Rahul Agrawal

28. No of Awards / Prizes and recognitions received by teachers at university, state, national and international level:

Nil

29. Awards and Prizes received by students at university, state, national and international level:

Nil

30. Student profile programme-wise at UG and PG

Programme UG/PG	Applications Received	No. of students Admitted	Seats Available	Male	Female	Total	Year
UG							

31. Year-wise results of final year students at UG and PG:

Year	Programme UG/PG	Appeared	Passed	Pass %
2021-2022	UG	79	70	88.61

32. Number of students cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give Category wise data.

Year	MPSC/UPSC	NET/SET	GATE	Other Exams	Total
2021-22	00	00	00	01	01

33. Student progression/ placement record: Number/ percentage of students proceeded for higher studies Number/percentage of students placed:

Year	% students progression for higher studies		% of students placed
	UG to PG	PG to Ph.D.	
2021-22	00	Not Applicable	30

34. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. / D.Lit.:

Nil

35. Present details of departmental infrastructural & other facilities with regard to

- Central Library Books and Journals, etc, relevant to Department :
- Departmental Library (books, journals etc.) :
- Computers and Internet facilities for staff : 05
- Total number of class rooms : 04
- Class rooms with ICT facility : 00

- f. Students' laboratory : 10
- g. Research laboratories :00
- h. Seminar Hall :01
- i. Smart class room :00
- j. Any other facility like LCDs, WiFi, LAN, LCS, :02

**36. Curricular Aspects: (answer Yes/No)**

- a) Does the faculty take initiative in curriculum development process? - No
- b) Does the department offer program with sufficient no. of electives options. - **Yes**
- c) Curriculum feedback taken from stakeholder's viz. Students/Alumni /Parents/Employers considered? - **Yes**
- d) What is the frequency of curriculum revision? (3/4/5 years or more): Not applicable

**37. Teaching-Learning, Evaluation.**

- a) Department adhere to Academic Plan? What is the % compliance – 100
- b) What is the percentage teachers using ICT mode for teaching and learning: 100
- c) Does the Department have Peer review processes? If yes, are the suggestions effectively used to improve the teaching quality? – **Yes**
- d) Does the department have any mechanism to ensure that syllabus is covered? – **Yes**
- e) SEE and CIE is effectively implemented (represent one example)? – **Yes**

**Teacher Performance:**

- a) Is there any student feedback process exist? - **Yes**
- b) Are the feedback reports analysed? - **Yes**
- c) Does feedback communicated to teachers? - **Yes**
- d) Whether suggestion boxes are kept in the department to get suggestions from students on facilities available at department? – **Yes**

**38. List the distinguished alumni of the department**

- 01.Avishkar Shelar
- 02.Sanjana Sanjay Yeole
- 03.Shubham Shelke



- 04.Nupur Hemant Bhujbal
- 05 Samrudhi Badgajar
- 06 Sanjana S. Yeole
- 07 Hrishikesh dadaji sonawane
- 08 Gayatri Subhash Jadhav
- 09 GANESH GAIKWAD
- 10 Vipul Ramesh Chavan
- 11 Aadesh Barikrao Sawale
- 12 Yuvraj Kishor Jagdale
- 13 Sanjana Sanjay Yeole
- 14 Srushti Ramraje

**39. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

No of programmes organized: 10

No of students benefitted: 80

Note: Verify for Program report, attendance and geo-tagged photograph

**40. Does the department ensure that programme objectives are constantly met and learning outcomes are monitored? -**

Yes

**41. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

**a. Strengths:**

1. The College has a dedicated faculty, highly efficient support staff.
2. MoU with nearby industry
3. Offered Certificate program in AC-DC Drive, LV Switch Gear, Auto Electrical

**b. Weaknesses:**

1. Less student qualified for GATE.
2. Few research Publication in Scopus/ SCI Journal.
3. Not filled any Patent.
4. No research Consultancy till date.
5. No PG Course in the department.

**c. Opportunities:**




1. NBA Accreditation
2. PG Course
3. Publication of Patent
4. Publication of paper in Scopus/ SCI Journal

**d. Challenges:**

1. To fetch AICTE sponsored research grant

**Academic Audit Suggestions (EE):**

- Additional facilities can be added/created to enhanced the laboratories
- Stake holders involvement in the formation of Vision, Mission and PEO to be enhanced
- SFR shall be improved
- Cadre ratio to be improved further
- More number of value added and or add on courses shall be introduced
- Evidence of action taken on obtained student feedback shall be maintained
- Statements of CO to be redrafted considering the higher order of blooms taxonomy
- Separate CO statements for laboratory are to be defined and CO-PO mapping to be done to ensure maximum PO coverage through curriculum
- More number of indirect assessment tools shall be used for assessment of academics and PO attainment
- Peered publication shall be improved by department faculties.
- Research related activities shall be enhanced
- Publication technical magazine can be initiated
- Potential projects can be identified and patented
- Students progression at SE, TE and BE shall be improved
- More number of activities to be taken up through the students professional chapter
- Visiting faculty can be appointed for any course of the curriculum

Sr. No	Name of Committee Member	Designation	Signature
1	Dr. D. P. Kadam	Academic Expert Professor MET's Institute of Engineering, Nashik	
2	Dr. S. S. Khule	Academic Expert Professor Matoshri College of Engineering and Research Centre, Eklahare, Nashik	
3	Dr. S. D. Kalpande	Professor and Academic Dean, Guru Gobind Singh College of Engineering and Research Centre, Nashik	
4	Dr. Rahul Agrawal	Professor and Head Department of Electrical Engineering, Guru Gobind Singh College of Engineering and Research Centre, Nashik	