



DOCUMENT INDEX CRITERIA – 6.5.3

ADDITIONAL DOCUMENTS

Sl No	SPECIFICATION OF DOUMENT	PAGE NO
1.	ACADEMIC ADMINISTRATIVE AUDIT (AAA)	1 - 111
2.	MRM AND INITIATION OF FOLLOW-UP ACTION	112 - 113
3.	ORIENTATION PROGRAMMES ON QUALITY ISSUES FOR TEACHERS AND STUDENTS	114 - 147




PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thrissur, Kerala-680 588
Email: ncerc@ncerc.ac.in



&



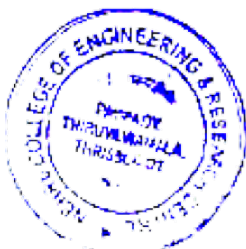
Accredited



DOCUMENT INDEX CRITERIA – 6.5.2

DEPARTMENT WISE INTERNAL ACADEMIC AUDIT

SI No	SPECIFICATION OF DOUMENT	PAGE NO
1.	Auditors detail of Inter department Academic Audit	1-2
MTR		
2.	ODD SEMESTER	03 – 20
3.	EVEN SEMSTER	
CSE		
4.	ODD SEMESTER	21-38
5.	EVEN SEMSTER	
MBA		
6.	ODD SEMESTER	39 - 52
7.	EVEN SEMSTER	
	ME	
8.	ODD SEMESTER	53 - 69
9.	EVEN SEMSTER	
ECE		
10.	ODD SEMESTER	70 - 85
11.	EVEN SEMSTER	
MCA		
12.	ODD SEMESTER	86 - 92
13.	EVEN SEMSTER	
EEE		
14.	ODD SEMESTER	93 - 110
15.	EVEN SEMSTER	




PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thrissur, Kerala-680 588
Contact: 0484-2510000



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC Accredited)
(Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University,
Kerala)

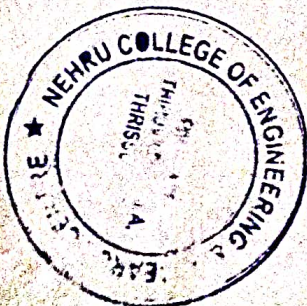


Internal Audit Schedule (Odd Semester)- 2021-22

Sl.No	Date	Department to be audit	Auditor name	Signature
1	01/02/2022 to 03/02/2022	CSE	Mr. Anoopkumar M V	
			Mr. David E	
2	01/02/2022 to 03/02/2022	ECE	Mr. Rahul R	
			Mr. Vipin K M	
3	01/02/2022 to 03/02/2022	EEE	Mr. Vipin K M	
			Mr. Midhun Raj P K	
4	01/02/2022 to 03/02/2022	ME	Ms. Sajitha A S	
			Mr. Midhun Raj P K	
5	01/02/2022 to 03/02/2022	MT	Mr. Rahul R	
			Ms. Sajitha A S	
6	01/02/2022 to 03/02/2022	MBA	Ms. Deepa A	
			Mr. Anoopkumar M V	
7	01/02/2022 to 03/02/2022	MCA	Mr. Alex Kuruvilla	
			Mr. David E	

IQAC DIRECTOR

PRINCIPAL



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Thrissur Dt
Pin - 686 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC A Accredited)

(Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University, Kerala)

INTERNAL QUALITY ASSURANCE CELL



Internal Audit (First) Schedule
(Even Semester)- 2021-22

Sl.No	Date	Department to be audit	Auditor name	Signature
1	07/06/2022 to 06/06/2022	CSE	Mr. Anoopkumar M V	
			Mr. David E	
2		ECE	Mr. Rahul R	
			Mr. Vipin K M	
3		EEE	Mr. Vipin K M	
			Mr. Midhun Raj P K	
4		ME	Ms. Sajitha A S	
			Mr. Midhun Raj P K	
5		MT	Mr. Rahul R	
			Ms. Sajitha A S	
6		MBA	Ms. Deepa A	
			Mr. Anoopkumar M V	
7		MCA	Mr. Alex Kuruvilla	
			Mr. David E	

IQAC DIRECTOR

PRINCIPAL
04/06/22



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



IOAC INTERNAL ACADEMIC AUDIT REPORT (2021-22)

ACADEMIC YEAR : 2020-21

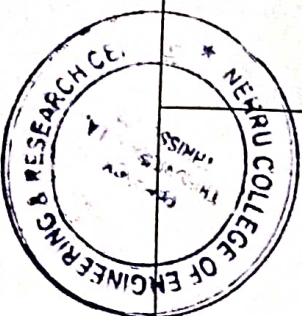
SEMESTER : ODD

AUDITED DEPARTMENT : MTR

AUDITED BY : Mr. Rahul & Ms. Saijitha A S

DATE : 02/02/2022

Sl. NO	Key Aspects	Status of Documents	Auditor Remarks	Completion of pending documents
1	Minutes and action taken reports of course/class committees of UG/PG a. Verify minutes and action taken report	AVAILABLE	Three meetings has conducted for S7 Btech and verified the minutes and action taken report. All faculties who handling the classes and 3 students from each class were attended for first and second meeting. The third meeting was comprised of faculty members without students. S7 B TECH - (ON 9/12/21) – Meeting II S7 B TECH - (ON 17/01/22) – Meeting III	COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thiruvilwamala Thiruvallur Dt
Pin - 680 557, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



2	Minutes and action taken reports of advisory meetings a. Verify minutes and action taken report	AVAILABLE	The meeting has conducted on the following dates and verified the minutes and action taken report. S3 B TECH - (ON 27/01/22) – Meeting II S5 B TECH – (ON 27/01/22) – Meeting II	COMPLETED
---	--	-----------	--	-----------



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thiruvivamala, Thrissur Dt
Pin - 686 567, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



3	Course File for all the courses a. Course file for all courses (theory, practical, seminar, project, etc.) b. Examine course file for all necessary details such as (i) Time slot of classes (ii) Syllabus (iii) Course plan (iv) Details of assignments, tutorials (v) Attendance of students (vi) Marks awarded for assignments, internal exams etc. (vii) Topics covered (viii) Extra classes engaged Maintenance of course folder a. The course folder shall contain (i) Course file (ii) Sample Assignments (iii) Sample Answer books of internal exams with QP (iv) QP of end exams (v) Statements of Internal Evaluation marks (vi) Module notes	AVAILABLE	
---	---	-----------	--





NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



faculty-wise time table			
		PM Online time table Monday to Thursday – 8.30 am to 1.30 pm, Friday – 8.00 am to 12.30 pm, 5 hours per day with 50 minutes duration Revision class timetable also verified.	
5	Conduct of Tutorial Classes a. Verify the tutorial logbook b. Size of tutorial classes c. Number of students assigned to a faculty d. mark tutorial hour in the timetable. Sample tutorial book	AVAILABLE Tutorial logbook and sample notebooks are verified Tutorial hours are marked in the timetable.	COMPLETED
6	Internal test question paper and sample answer scripts a. Assessment can be done based on the following 1. punctuality of valuation 2. Question papers & scheme of evaluation	AVAILABLE All the faculties valued and submitted the Answer papers on or before due date. 1. Three sets of QP and scheme are available for series test 1 & 2 Three sample answer sheets available	COMPLETED 14



PRINCIPAL
Nehru College of
Engineering and Research Centre
Panapady, Thiruvananthapuram, Kerala
Pin - 690 597



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	3 sample answer sheets minimum			
7	Syllabus coverage of practical course		1. S7 Labs are completed 2. S1 Lab – 60% Completed 3. S3, S5 lab – 78% completed	COMPLETED
8	Laboratory manual, records and course file for all practical courses a. Verify course diary, course file, log book of equipment, work record of students (3 numbers). b. Assessment can be done based on (i) number of students in a batch (ii) time given for doing the experiment (iii) number of experiments conducted as per syllabus (iv) Check syllabus of practical class pasted in front of the course diary (v) Check evaluation on the same date (vi) Mark distribution details	AVAILABLE	1. Verified course file 2. Syllabus pasted in Course File 3. Mark distribution of experiments as verified 4. S7 Labs are completed 5. S1 Lab – 55% Completed 6. S3, S5 lab – 80% completed 7. S7 internal marks published	COMPLETED
9	Equipment log registers, stock registers used in Laboratories	REGISTER AVAILABLE	Stock and issue register are available and Verified	COMPLETED



PRINCIPAL
Neeru College of
Engineering and Research Centre
Pattipady, Thiruvananthapuram District
Pin - 560 557, Kerala

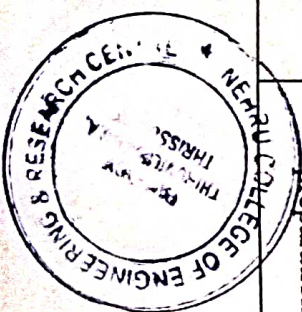


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



10	Conduct of series test	CONDUCTED	1. Series test I & II result analysis is available for S7 and verified. 2. Series test I result analysis is available for S1, S3, S5 and verified Conducted as per academic schedule	COMPLETED
11	Project (Mini project/Design project/Final semester project) progress review reports. Quality & Progress of projects Can be accessed from a. Course file, project review records, outcome of projects such as papers published, patents, awards etc. b. project team maximum of 5 c. includes literature survey, formulation of objectives, formulation of hypothesis/design/methodology, formulation of work plan, preparation of report	AVAILABLE and VERIFIED	Seminar of S7 MTR completed Design projects: Not Applicable Project 3 reviews completed for MTR S7 students Sample reports are available	COMPLETED



PRINCIPAL
Neeru College of
Engineering and Research Centre
Pampady, Thiruvivamala, Thrissur Dt
Pin - 680 597, Kerala



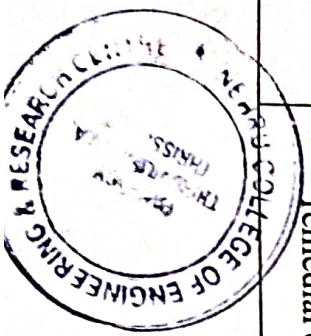
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



Modelling Time Course
Since 1968

	d. sample fair report			
12	Mentoring details	REGISTER AVAILABLE	Verified the details. 15 Students assigned for one faculty	COMPLETED
13	Result Analysis of previous semester Performance of students in the previous semester a. Update with revaluation results b. subject wise and overall pass percentage c. check green card updating	AVAILABLE AND VERIFIED	1. Updated last university result and verified with revaluation result. 2. Subject wise pass percentage is available 3. Green Cards verified and all batches green cards were updated.	COMPLETED
14	Details showing the conduct of remedial classes. a. Check maintaining register for recording details of remedial classes	REMEDIAL CLASS REGISTER AVAILABLE	Recorded class details in the register	COMPLETED



PRINCIPAL

Neeru College of

Engineering and Research Centre
Pampady, Thiruvikramala Thiruvallur DI

Pin - 680 597, Kerala

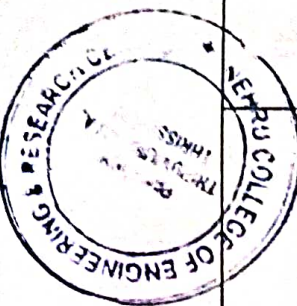


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	b. Attendance of students			
15	Details showing the conduct of Minor classes Check maintaining course file for recording details of minor classes	AVAILABLE	S3 and S5 MINOR Course files and Course folders are available and verified	COMPLETED
16	Details showing the conduct of Honour classes Check maintaining course file for recording details of honour classes	AVAILABLE	Course files for S7 HONOURS are available and verified	COMPLETED
17	Assessment of Outcomes a. Verify COs and knowledge levels in internal and assignment question papers. b. Verify CO/PO attainment calculation for all the courses	AVAILABLE	CO/PO knowledge levels and attainment calculations and files are available and verified	COMPLETED
18	Details of faculty evaluation and action taken on it.	AVAILABLE	First & Second set feedback in the current semester was collected and the grades calculated. Detailed Report is available	COMPLETED



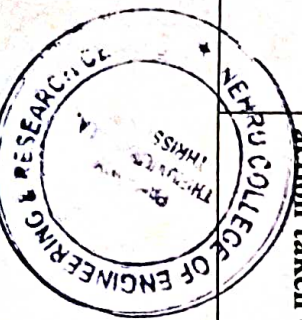


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	b. Attendance of students			
15	Details showing the conduct of Minor classes Check maintaining course file for recording details of minor classes	AVAILABLE	S3 and S5 MINOR Course files and Course folders are available and verified	COMPLETED
16	Details showing the conduct of Honour classes Check maintaining course file for recording details of honour classes	AVAILABLE	Course files for S7 HONOURS are available and verified	COMPLETED
17	Assessment of Outcomes a. Verify COs and knowledge levels in internal and assignment question papers. b. Verify CO/PO attainment calculation for all the courses	AVAILABLE	CO/PO knowledge levels and attainment calculations and files are available and verified	COMPLETED
18	Details of faculty evaluation and action taken on it.	AVAILABLE	First & Second set feedback in the current semester was collected and the grades calculated. Detailed Report is available	COMPLETED



PRINCIPAL

Nehru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Thrissur Dt
Pin - 680 557, Kerala

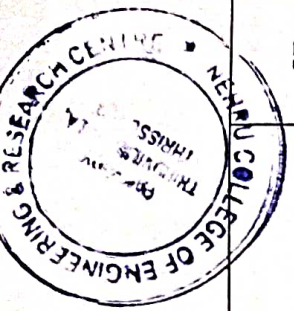


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	Students Feedback a. two sets of feedback for each semester b. % of students participated c. corrective actions taken for improving teaching effectiveness			
19	Department library register showing volume and title of books, journals etc.	REGISTER AVAILABLE	Stock register and issue register available.	COMPLETED
20	Platform used for LMS/Course materials and lectures uploaded	VERIFIED	Course Materials uploaded in Google class room and college website	COMPLETED
21	NPTEL/SWAYAM course materials recommended	AVAILABLE	Available and verified.	COMPLETED
22	Register showing activity points	REGISTERS AVAILABLE	S5, S7 Registers were updated.	COMPLETED
23	Updated Green Cards	UPDATED	Green Cards verified and all batches green	COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Trissur Dt
Pin - 680 597, Kerala

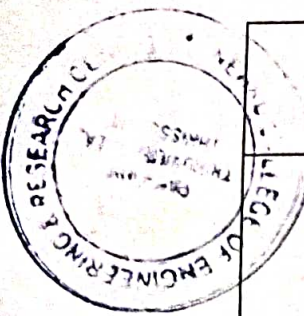


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



			cards were updated.	
24	Categorisation of students with list	AVAILABLE	Students' categorisation list available and verified.	COMPLETED
25	Details of value added courses	AVAILABLE	Value added courses and details are available. 3 value added courses are available in odd semester of academic year 2021-22	COMPLETED
26	Feedback from Students, Alumni, Employer & Faculty	Available	Feedback from Students and Alumni are available and verified	COMPLETED
27	Faculty and staff profile	AVAILABLE	Faculty and staff profile documents are available for all faculties and staff.	COMPLETED
28	Paper publication	AVAILABLE AND VERIFIED	List and details of paper publications file are available. 9 papers published in odd semester of academic year 2021-22	COMPLETED
29	Conference Details	AVAILABLE AND VERIFIED	List and details of conference file are available. Details of 8 conferences are available in odd semester of academic year 2021-22	COMPLETED



PRINCIPAL

Nehru College of
Engineering and Research Centre
Pambay, Thiruvilwamur, Tripunithurai
Pin - 680 557, Kerala

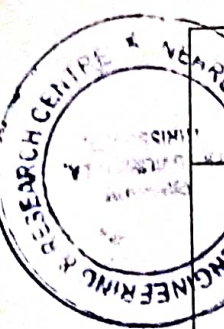


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



30	Refresher Course	AVAILABLE	List and details of refresher courses are available. No refresher courses are attended or organized in odd semester of academic year 2021-22	COMPLETED
31	Training Program	AVAILABLE	List and details of training program are available. No training programs were attended or organized in odd semester of academic year 2021-22	COMPLETED
32	FDP Details	AVAILABLE AND VERIFIED	List and details of FDP file are available. Details of 8 FDPs are available in odd semester of academic year 2021-22	COMPLETED
33	Funded FDPs	NOT AVAILABLE	Funded FDPs are not available	COMPLETED
DEPARTMENT FILES IN LINE WITH NBA/NAAC ACCREDITATION				
A1 - Files (Academic Files)				
FOR LAST 3 YEARS				
34	Time table (with tutorials) - Staff	AVAILABLE	Time table for all classes are available and verified	COMPLETED
	Arranged in hierarchical order		Contact class timing is from 9.00 AM to 4.00	

4

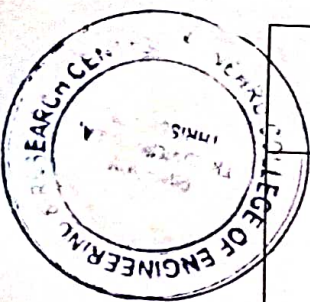




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



			PM Online time table Monday to Thursday – 8.30 am to 1.30 pm, Friday – 8.00 am to 12.30 pm, 5 hours per day with 50 minutes duration Revision class timetable also verified.	
35	Internal exam QP (DQAC Approved)	AVAILABLE	Approved sets of Internal exam QP are available and Verified	COMPLETED
36	Innovative Teaching approaches	AVAILABLE	Innovative Teaching approaches such as ICT enabled teaching, group assignment, interactive learning, video lectures, group discussion, tutorial, peer learning and project based learning are verified	COMPLETED
37	Tutorial samples with log book	AVAILABLE	Tutorial logbook and sample notebooks are verified Tutorial hours are marked in the timetable.	COMPLETED
38	SFR (Computation as per NBA)	AVAILABLE	Number of faculties = 13	COMPLETED

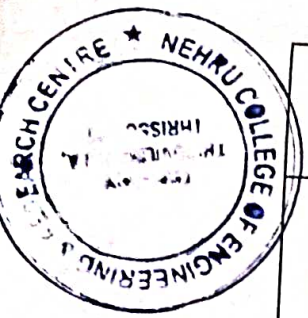




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



			Number of students = 180 SFR = 13.84	
	A2 - File (Academic Files)			
39	Course files (Last 3 years)	AVAILABLE	Course files with sample assignment books and sample test books are available and verified	COMPLETED
	A3 - Files (Academic Files)			
40	CO-PO, CO-PSO mapping	AVAILABLE	CO-PO, CO-PSO mapping of all courses are available and verified.	COMPLETED
41	PO, PSO attainment	AVAILABLE	Calculated documents of PO, PSO attainment of all courses are available and verified.	COMPLETED
42	Curriculum Gap (with Gaps and course identified to address the POs, PSOs)	AVAILABLE	Feedback files indicating reason for curriculum gap are available and verified	COMPLETED
43	Project (a. List of projects with guides and students b. Panels, rubrics and marks of evaluation c. PO, PSO attainment)	AVAILABLE and VERIFIED	Design projects: Not Applicable Project 3 reviews completed for CSE S7 students	COMPLETED



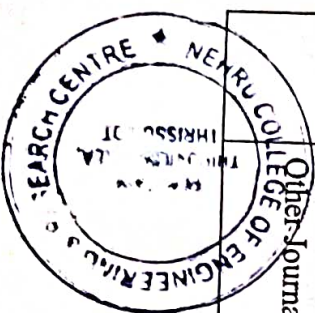


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



			Sample reports are available	
44	Subject Group (List of groups and Faculty, allotment by HOD, Minutes of each group, Programs/Activities organized under each group)	AVAILABLE and VERIFIED	List of subject group, faculties and activities are available	COMPLETED
	B - Files (Staff Files)			
45	Add-on Courses (<i>Update these files for period July- June</i>) Research funding (a. Internal, b. External)	AVAILABLE	List of Add-on courses and details are available. 3 add-on courses are there in odd semester of academic year 2021-22	COMPLETED
46	Consultancy	NOT AVAILABLE	Not available	COMPLETED
47	Collaborative works/research and outcomes	NOT AVAILABLE	Not available	COMPLETED
48	Journal Publications: ISI, SCOPUS, Other Journals	AVAILABLE AND VERIFIED	List and details of journal publications file are available. 3 papers published in odd semester of academic year 2021-22	COMPLETED





NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



49	Publications: Conference, Books, Book chapters, Articles, etc.	AVAILABLE AND VERIFIED	List and details of conference file are available. Details of 9 conferences are available in odd semester of academic year 2021-22	COMPLETED
50	IPR (and related activities)	AVAILABLE AND VERIFIED	List and details of IPR file are available. 4 patents were registered in academic year 2021-22	COMPLETED
51	MoU	AVAILABLE AND VERIFIED	List and details of MoU file are available. 1 MoU signed in odd semester of academic year 2021-22	COMPLETED
52	FDP Attended: (a. Outside own college b. Inside own college)	AVAILABLE AND VERIFIED	List and details of FDP file are available. Faculties attended 30 FDP in odd semester of academic year 2021-22	COMPLETED
53	FDP/Conference Organized	AVAILABLE AND VERIFIED	List and details of FDP organization file are available.	COMPLETED
54	Awards / Honors	NOT AVAILABLE	Not available	COMPLETED
55	External Interaction	NOT AVAILABLE	Not available	COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Thiruvivamala Thirissur Dt
Pin - 686 557, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)



(Approved by AICTE, Affiliated to KTU, Kerala)

C - Files (Student Files)			
56	Roll List (for last 3 years)	AVAILABLE AND VERIFIED	Roll List for last 3 years are available
57	KTU Results and Analysis (Semester-wise)	AVAILABLE AND VERIFIED	KTU Results and Analysis are available
58	Success Data of Passed Out Batch	AVAILABLE AND VERIFIED	Available
59	Placement (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Placement details are Available
60	Higher Studies (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Higher Studies details are Available
61	Career/Skill Development Programs	AVAILABLE AND VERIFIED	Career/Skill Development Programs details are Available
62	Achievements	AVAILABLE AND VERIFIED	Department Achievements details are Available



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thiruvananthapuram, Thiruvananthapuram District
Pin : 690 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



63	Entrepreneurship / Start ups	AVAILABLE AND VERIFIED	Entrepreneurship / Start ups details are Available	COMPLETED
64	Professional Society Activity	AVAILABLE AND VERIFIED	Professional Society Activity details are Available	COMPLETED
D - Files (Miscellaneous Files)				
65	Staff Extension Activities	AVAILABLE AND VERIFIED	Staff Extension Activities details are Available	COMPLETED
66	Staff Duties/Responsibilities	AVAILABLE AND VERIFIED	Staff Duties/Responsibilities details are Available	COMPLETED
67	Guest Acquaintance (Semester-wise)	AVAILABLE AND VERIFIED	Guest Acquaintance details are Available	COMPLETED
68	Department Budget	AVAILABLE AND VERIFIED	Department Budget files are Available	COMPLETED

Auditor

Auditee

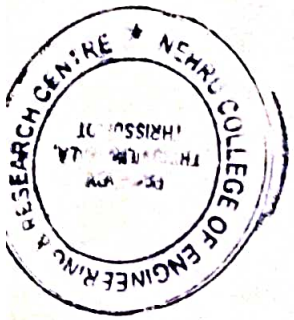
(Madhurya Ray)

HOD

for,

PRINCIPAL

Neeru College of
Engineering and Research Centre
Pattipalay, Thiruvilwamala Thrissur Dt
Pin - 680 557 Kerala





NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



IQAC INTERNAL ACADEMIC AUDIT REPORT (2021-22)

ACADEMIC YEAR : 2020-22

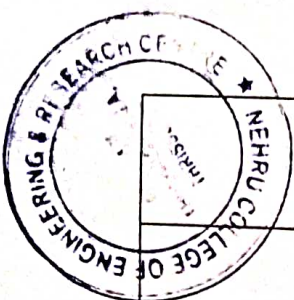
SEMESTER : ODD

AUDITED DEPARTMENT : CSE

AUDITED BY : Mr. Anoopkumar MV & Mr. David E

DATE : 02/02/2022

Sl. NO	Key Aspects	Status of Documents	Auditor Remarks	Completion of pending documents
1	Minutes and action taken reports of course/class committees of UG/PG a. Verify minutes and action taken report	AVAILABLE	Three meetings has conducted for S7 Btech and verified the minutes and action taken report. All faculties who handling the classes and 3 students from each class were attended for first and second meeting. The third meeting was comprised of faculty members without students. S7 B TECH - (ON 10/12/21) – Meeting II S7 B TECH - (ON 15/01/22) – Meeting III	COMPLETED 



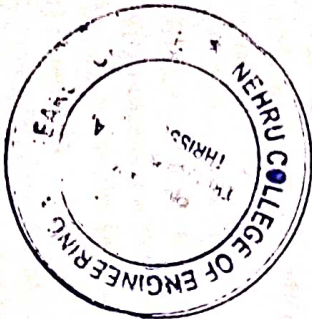
PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thiruvananthapuram
Pin - 690 557, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



2	Minutes and action taken reports of advisory meetings	AVAILABLE	The meeting has conducted on the following dates and verified the minutes and action taken report.	COMPLETED
	a. Verify minutes and action taken report		S3 B TECH - (ON 15/01/22) – Meeting II S5 B TECH – (ON 15/01/22) – Meeting II	



4

PRINCIPAL
Nehru College of
Engineering and Research Centre
Pumpady, Thiruvananthapuram, Thiruvananthapuram Dt.
Pin - 695 597, Kerala



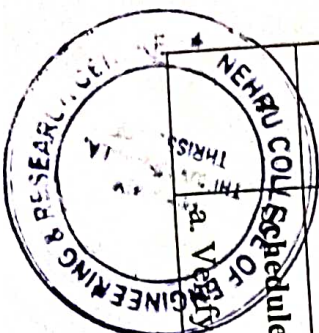
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



3	Course File for all the courses	AVAILABLE	COMPLETED	
	a. Course file for all courses (theory, practical, seminar, project, etc.) b. Examine course file for all necessary details such as (i) Time slot of classes (ii) Syllabus (iii) Course plan (iv) Details of assignments, tutorials (v) Attendance of students (vi) Marks awarded for assignments, internal exams etc. (vii) Topics covered (viii) Extra classes engaged Maintenance of course folder a. The course folder shall contain (i) Course file (ii) Sample Assignments (iii) Sample Answer books of internal exams with QP (iv) QP of end exams (v) Statements of Internal Evaluation marks (vi) Module notes	AVAILABLE	1. Time slot verified 2. Syllabus pasted 3. Course plan verified 4. Assignments completed, 3 questions from first three modules, each carries 10 marks, total 30 marks 5. Series test marks verified 6. All modules completed for S7. 4 modules completed for S3 and S5 7. No extra classes needed 8. 3 sample assignments and series booklets are available 9. Series test 1 & 2 QP and scheme are available Notes available Verified time table. Contact class timing is from 9.00 AM to	COMPLETED



Schedule of Time Table

Verified class-wise and individual

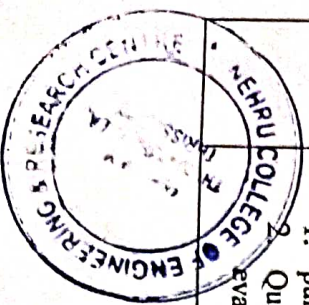


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	faculty-wise time table		4.00 PM Online time table Monday to Thursday – 8.30 am to 1.30 pm, Friday – 8.00 am to 12.30 pm, 5 hours per day with 50 minutes duration Revision class timetable also verified.	
5	Conduct of Tutorial Classes a. Verify the tutorial logbook b. Size of tutorial classes c. Number of students assigned to a faculty d. mark tutorial hour in the timetable. Sample tutorial book	AVAILABLE	Tutorial logbook and sample notebooks are verified Tutorial hours are marked in the timetable.	COMPLETED
6	Internal test question paper and sample answer scripts a. Assessment can be done based on the following 1. punctuality of valuation 2. Question papers & scheme of evaluation	AVAILABLE	All the faculties valued and submitted the Answer papers on or before due date. 1. Three sets of QP and scheme are available for series test 1 & 2 Three sample answer sheets available	COMPLETED 4



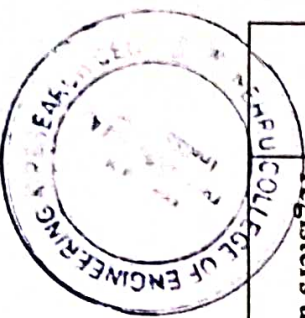


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	3 sample answer sheets minimum			
7	Syllabus coverage of practical course		1. S7 Labs are completed 2. S1 Lab – 50% Completed 3. S3, S5 lab – 80% completed	COMPLETED
8	Laboratory manual, records and course file for all practical courses a. Verify course diary, course file, log book of equipment, work record of students (3 numbers). b. Assessment can be done based on (i) number of students in a batch (ii) time given for doing the experiment (iii) number of experiments conducted as per syllabus (iv) Check syllabus of practical class pasted in front of the course diary (v) Check evaluation on the same date (vi) Mark distribution details	AVAILABLE	1. Verified course file 2. Syllabus pasted in Course File 3. Mark distribution of experiments as verified 4. S7 Labs are completed 5. S1 Lab – 50% Completed 6. S3, S5 lab – 80% completed 7. S7 internal marks published	COMPLETED
9	Equipment log registers, stock registers used in Laboratories	REGISTER AVAILABLE	Stock and issue register are available and Verified	COMPLETED



PRINCIPAL
Neeru College of
Engineering and Research Centre
Puthupay, Thuvattamala, Thiruvananthapuram
Pin - 696 557 Kerala



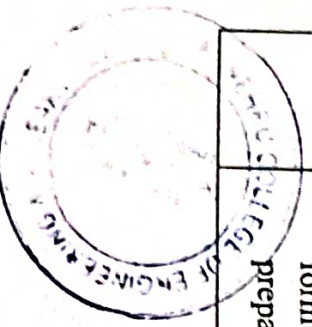
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



10	Conduct of series test	CONDUCTED	1. Series test I & II result analysis is available for S7 and verified. 2. Series test I result analysis is available for S1, S3, S5 and verified Conducted as per academic schedule	COMPLETED
11	Project (Mini project/Design project/Final semester project) progress review reports. Quality & Progress of projects Can be accessed from a. Course file, project review records, outcome of projects such as papers published, patents, awards etc. b. project team maximum of 5 c. includes literature survey, formulation of objectives, formulation of hypothesis/design/methodology, formulation of work plan, preparation of report	AVAILABLE and VERIFIED	Seminar of S7 CSE completed Design projects: Not Applicable Project 3 reviews completed for CSE S7 students Sample reports are available	COMPLETED



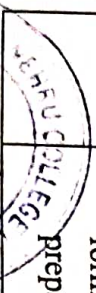


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



10	Conduct of series test	CONDUCTED	1. Series test I & II result analysis is available for S7 and verified. 2. Series test I result analysis is available for S1, S3, S5 and verified Conducted as per academic schedule	COMPLETED
11	Project (Mini project/Design project/Final semester project) progress review reports. Quality & Progress of projects Can be accessed from a. Course file, project review records, outcome of projects such as papers published, patents, awards etc. b. project team maximum of 5 c. includes literature survey, formulation of objectives, formulation of hypothesis/design/methodology, formulation of work plan, preparation of report	AVAILABLE and VERIFIED	Seminar of S7 CSE completed Design projects: Not Applicable Project 3 reviews completed for CSE S7 students Sample reports are available	COMPLETED



PRINCIPAL

4

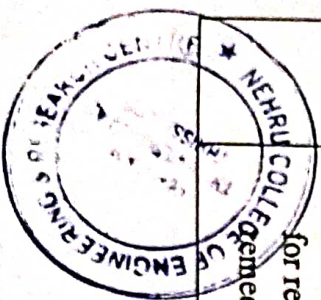


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	d. sample fair report			
12	Mentoring details	REGISTER AVAILABLE	Verified the details. 8 Students assigned for one faculty	COMPLETED
13	Result Analysis of previous semester Performance of students in the previous semester a. Update with revaluation results b. subject wise and overall pass percentage c. check green card updating	AVAILABLE AND VERIFIED	1. Updated last university result and verified with revaluation result. 2. Subject wise pass percentage is available 3. Green Cards verified and all batches green cards were updated.	COMPLETED
14	Details showing the conduct of remedial classes. a. Check maintaining register for recording details of remedial classes	REMEDIAL CLASS REGISTER AVAILABLE	Recorded class details in the register	COMPLETED



VC/12/23



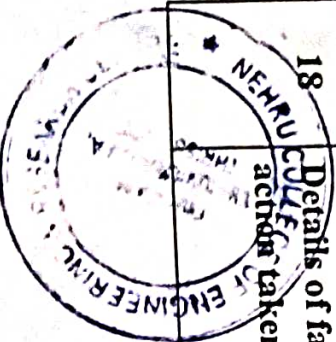
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	b. Attendance of students			
15	Details showing the conduct of Minor classes Check maintaining course file for recording details of minor classes	AVAILABLE	S3 and S5 MINOR Course files and Course folders are available and verified	COMPLETED
16	Details showing the conduct of Honour classes Check maintaining course file for recording details of honour classes	AVAILABLE	Course files for S7 HONOURS are available and verified	COMPLETED
17	Assessment of Outcomes a. Verify COs and knowledge levels in internal and assignment question papers. b. Verify CO/PO attainment calculation for all the courses	AVAILABLE	CO/PO knowledge levels and attainment calculations and files are available and verified	COMPLETED
18	Details of faculty evaluation and action taken on it.	AVAILABLE	First & Second set feedback in the current semester was collected and the grades calculated. Detailed Report is available	COMPLETED



PRINCIPAL

Nehru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Thrissur Dt.
Pin - 680 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	Students Feedback a. two sets of feedback for each semester b. % of students participated c. corrective actions taken for improving teaching effectiveness			
19	Department library register showing volume and title of books, journals etc.	REGISTER AVAILABLE	Stock register and issue register available.	COMPLETED
20	Platform used for LMS/Course materials and lectures uploaded	VERIFIED	Course Materials uploaded in Google class room and college website	COMPLETED
21	NPTTEL/SWAYAM course materials recommended	AVAILABLE	Available and verified.	COMPLETED
22	Register showing activity points	REGISTERS AVAILABLE	S5, S7 Registers were updated. For S3 there is no entry till date	COMPLETED
23	Updated Green Cards	UPDATED	Green Cards verified and all batches green cards were updated.	COMPLETED



PRINCIPAL

Neeru College of
Engineering and Research Centre
Painjady, Thiduvilwamala, Thrissur Dt.
Pin - 680 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



24	Categorisation of students with list	AVAILABLE	Students' categorisation list available and verified.	COMPLETED
25	Details of value added courses	AVAILABLE	Value added courses and details are available. 3 value added courses are available in odd semester of academic year 2021-22	COMPLETED
26	Feedback from Students, Alumni, Employer & Faculty	Partially Available	Feedback from Students and Alumni are available and verified	Need to collect feedback from Employer and Faculty
27	Faculty and staff profile	AVAILABLE	Faculty and staff profile documents are available for all faculties and staff.	COMPLETED
28	Paper publication	AVAILABLE AND VERIFIED	List and details of paper publications file are available. 5 papers published in odd semester of academic year 2021-22	COMPLETED
29	Conference Details	AVAILABLE AND VERIFIED	List and details of conference file are available. Details of 5 conferences are available in odd semester of academic year 2021-22	COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pamunthy, Thiruvivamala, Thrissur Dt.
Pin - 680 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



30	Refresher Course	AVAILABLE	List and details of refresher courses are available. No refresher courses are attended or organized in odd semester of academic year 2021-22	COMPLETED
31	Training Program	AVAILABLE	List and details of training program are available. No training programs were attended or organized in odd semester of academic year 2021-22	COMPLETED
32	FDP Details	AVAILABLE AND VERIFIED	List and details of FDP file are available. Details of 3 FDPs are available in odd semester of academic year 2021-22	COMPLETED
33	Funded FDPs	NOT AVAILABLE	Funded FDPs are not available	COMPLETED
DEPARTMENT FILES IN LINE WITH NBA/NAAC ACCREDITATION				
A1 - Files (Academic Files)				
FOR LAST 3 YEARS				
34	Time table (with tutorials) - Staff arranged in hierarchical order	AVAILABLE	Time table for all classes are available and verified Contact class timing is from 9.00 AM to	COMPLETED



PRINCIPAL
Neiru College of
Engineering and Research Centre
Pattipady, Thiruvallamala, Thrissur Dt.
Pin - 680 557, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



			4.00 PM Online time table Monday to Thursday – 8.30 am to 1.30 pm, Friday – 8.00 am to 12.30 pm, 5 hours per day with 50 minutes duration Revision class timetable also verified.	
35	Internal exam QP (DQAC Approved)	AVAILABLE	Approved sets of Internal exam QP are available and Verified	COMPLETED
36	Innovative Teaching approaches	AVAILABLE	Innovative Teaching approaches such as ICT enabled teaching, group assignment, interactive learning, video lectures, group discussion, tutorial, peer learning and project based learning are verified	COMPLETED
37	Tutorial samples with log book	AVAILABLE	Tutorial logbook and sample notebooks are verified Tutorial hours are marked in the timetable.	COMPLETED



PRINCIPAL
Neeru College of
Engineering and Research Centre
Pampady, Thiruviththala, Thiruvananthapuram
Pin - 680 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



38	SFR (Computation as per NBA)	AVAILABLE	Number of faculties = 35 Number of students = 433 SFR = 12:37	COMPLETED
A2 - File (Academic Files)				
39	Course files (Last 3 years)	AVAILABLE	Course files with sample assignment books and sample test books are available and verified	COMPLETED
A3 - Files (Academic Files)				
40	CO-PO, CO-PSO mapping	AVAILABLE	CO-PO, CO-PSO mapping of all courses are available and verified.	COMPLETED
41	PO, PSO attainment	AVAILABLE	Calculated documents of PO, PSO attainment of all courses are available and verified.	COMPLETED
42	Curriculum Gap (with Gaps and course identified to address the POs, PSOs)	AVAILABLE	Feedback files indicating reason for curriculum gap are available and verified	COMPLETED



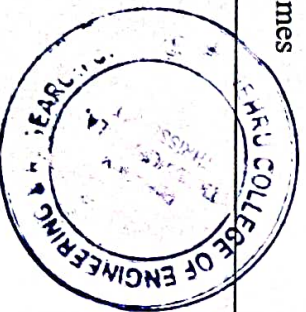
PRINCIPAL
Neeru College of
Engineering and Research Centre
Pampady, Thiruvilvam, Thrissur Dt.
Pin - 680 557, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



43	Project (a. List of projects with guides and students b. Panels, rubrics and marks of evaluation c. PO, PSO attainment)	AVAILABLE and VERIFIED	Design projects: Not Applicable Project 3 reviews completed for CSE S7 students Sample reports are available	COMPLETED
44	Subject Group (List of groups and Faculty, allotment by HoD, Minutes of each group, Programs/Activities organized under each group)	AVAILABLE and VERIFIED	List of subject group, faculties and activities are available	COMPLETED
B - Files (Staff Files)				
45	Add-on Courses (<i>Update these files for period July-June</i>) Research funding (a. Internal, b. External)	AVAILABLE	List of Add-on courses and details are available. 3 add-on courses are there in odd semester of academic year 2021-22	COMPLETED
46	Consultancy	NOT AVAILABLE	Not available	COMPLETED
47	Collaborative works/research and outcomes	NOT AVAILABLE	Not available	COMPLETED



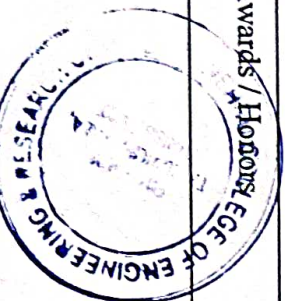


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



48	Journal Publications: ISI, SCOPUS, Other Journals	AVAILABLE AND VERIFIED	List and details of journal publications file are available. 5 papers published in odd semester of academic year 2021-22	COMPLETED
49	Publications: Conference, Books, Book chapters, Articles, etc.	AVAILABLE AND VERIFIED	List and details of conference file are available. Details of 5 conferences are available in odd semester of academic year 2021-22	COMPLETED
50	IPR (and related activities)	AVAILABLE AND VERIFIED	List and details of IPR file are available. 5 patents were registered in academic year 2021-22	COMPLETED
51	MoU	AVAILABLE AND VERIFIED	List and details of MoU file are available. 1 MoU signed in odd semester of academic year 2021-22	COMPLETED
52	FDP Attended: (a. Outside own college b. Inside own college)	AVAILABLE AND VERIFIED	List and details of FDP file are available. 5 faculties attended FDP in odd semester of academic year 2021-22	COMPLETED
53	FDP/Conference Organized	AVAILABLE AND VERIFIED	List and details of FDP organization file are available.	COMPLETED
54	Awards / Honours	NOT AVAILABLE	Not available	COMPLETED

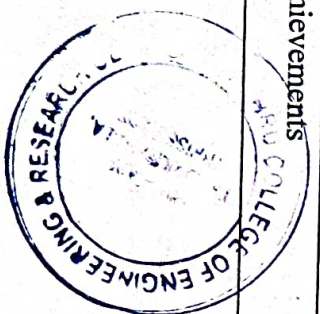




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



55	External Interaction	NOT AVAILABLE	Not available	COMPLETED
	C - Files (Student Files)			
56	Roll List (for last 3 years)	AVAILABLE AND VERIFIED	Roll List for last 3 years are available	COMPLETED
57	KTU Results and Analysis (Semester-wise)	AVAILABLE AND VERIFIED	KTU Results and Analysis are available	COMPLETED
58	Success Data of Passed Out Batch	AVAILABLE AND VERIFIED	Available	COMPLETED
59	Placement (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Placement details are Available	COMPLETED
60	Higher Studies (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Higher Studies details are Available	COMPLETED
61	Career/Skill Development Programs	AVAILABLE AND VERIFIED	Career/Skill Development Programs details are Available	COMPLETED
62	Achievements	AVAILABLE AND	Department Achievements details are	COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pulupady, Thiruvilwamala, Thrissur Dt.
Pin - 680 597, Kerala



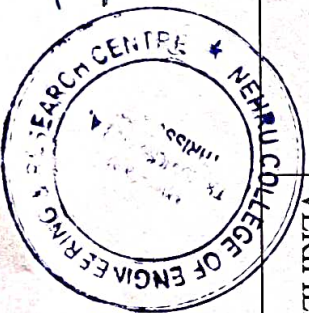
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	VERIFIED	Available	
63	Entrepreneurship / Start ups AVAILABLE AND VERIFIED	Entrepreneurship / Start ups details are Available	COMPLETED
64	Professional Society Activity AVAILABLE AND VERIFIED	Professional Society Activity details are Available	COMPLETED
D - Files (Miscellaneous Files)			
65	Staff Extension Activities AVAILABLE AND VERIFIED	Staff Extension Activities details are Available	COMPLETED
66	Staff Duties/Responsibilities AVAILABLE AND VERIFIED	Staff Duties/Responsibilities details are Available	COMPLETED
67	Guest Acquaintance (Semester-wise) AVAILABLE AND VERIFIED	Guest Acquaintance details are Available	COMPLETED
68	Department Budget AVAILABLE AND VERIFIED	Department Budget files are Available	COMPLETED

Auditor

DAVID, K
Anoopkumar MV



Auditee

Vipin KM

HOD



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



IQAC INTERNAL ACADEMIC AUDIT REPORT

ACADEMIC YEAR 21-22 SEMESTER : ODD/EVEN First Audit
AUDITED DEPARTMENT MBA AUDITED BY Dr. DEEPA (MCA) and Mr. ANOOP (Btech)
DATE 07/06/2022

Key Aspects	Status of Documents	Auditor Remarks	Completion of pending documents
Minutes and action taken report of course/class committee of UG/PG a. Verify minutes and action taken report	Completed	a. Class committee and Course committee conducted as per academic calendar. b. Action taken report is also included.	Nil
Minutes and action taken report of advisor meetings a. Verify minutes and action taken report	Not Conducted	Not Conducted	Nil
Course File for all the courses a. Course file for all courses (theory, practical,	All Complete till date	a. Course file of all subjects present	Nil



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



seminar, project, etc.) b. Examine course file for all necessary details such as (i) Time slot of classes (ii) Syllabus (iii) Course plan (iv) Details of assignments, tutorials (v) Attendance of students (vi) Marks awarded for assignments, internal exam set. (vii) Topics covered (viii) Extra classes engaged Maintenance of course folder a. The course folder shall contain (i) Course file (ii) Sample Assignments (iii) Sample Answer books of internal exams with QP (iv) QP of end exams (v) Statements of Internal Evaluation marks (vi) Module notes	Course folder complete till date	and completed. 1. Time slots present 2. Syllabus present 3. Course plan included 4. Assignment details present 5. Attendance taken and updated 6. Results of internals and assignments present All required document present in the course folder Principal signature Pending	
--	---	---	--



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
 (Approved by AICTE, Affiliated to KTU, Kerala)



Schedule of Time Table a. Verify class-wise and individual faculty-wise time table	Timetable available class wise	Available	Individual Timetable pending
Conduct of Tutorial Classes a. Verify the tutorial logbook b. Size of tutorial classes c. Number of students assigned to a faculty d. Hours of tutorial classes' per subject per week, mark tutorial hour in the timetable. Sample tutorial book	NA	No tutorial classes	
Internal test question paper and sample answerscripts a. Assessment can be done based on the following 1. punctuality of valuation 2. Question papers & scheme of evaluation 3 sample answersheets minimum	Completed	a. Assessed 1. Valuation done on time 2. QP and Sample answer script present 3. Second Internals Going on	Nil



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
 (Approved by AICTE, Affiliated to KTU, Kerala)



	Syllabus coverage of practical course	NA	No Practical subjects	
	Laboratory manual, records and course file for all practical courses a. Verify course diary, course file, log book of equipment, work record of students (3 numbers). b. Assessment can be done based on (i) number of students in a batch (ii) time given for doing the experiment (iii) number of experiments conducted as per syllabus (iv) Check syllabus of practical class pasted in front of the course diary (v) Check evaluation on the same date (vi) Mark distribution details	NA	No Practical Subjects	
	Equipment log registers, stock registers used in laboratories	NA	No Labs	
	Conduct of series test	Completed	First series exams of S2 Completed Second Series of 2 nd Sem and First Series of 4 th Sem Going on.	NIL



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
 (Approved by AICTE, Affiliated to KTU, Kerala)



Project(Mini project/Designproject/Finalsemesterproject)progressreviewreports. Quality & Progress of projects Can be accessed from a. Course file, project review records, outcome of projects such as papers published, patents, awards etc. b. project team maximum of 5 c. includes literature survey, formulation of objectives, formulation of hypothesis/design/methodology, formulation of work plan, preparation of report d. sample fair report	Ongoing Topic selection, Guide selection and area of research selected	Sem 4 Final Project Going on.	
Mentoring details	Available	All faculty – wise mentor report available	Nil
Result Analysis of previous semester Performance of students in the previous	Updated	• 2019-20 Batch all results available and completed	Nil



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



semester	a. Update with revaluation results b. subject wise and overall pass percentage c. check green card updating		• 2020-22 Batch Semester 1 results only published and present with result analysis. • 2020-22 Batch Semester 3 and 2021-23 Batch Semester 1 still pending.	
Details showing the conduct of remedial classes.	a. Check maintaining register for recording details of remedial classes b. Attendance of students	None taken	No remedial classes taken	
Details showing the conduct of Minor classes	Check maintaining course file for recording details of minor classes	NA	No Minor classes	
Details showing the conduct of Honour classes		NA	No Honour Classes	



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



Modelling True Citizens
Since 1968

	Check maintaining course file for recording details of honour classes			
	Assessment of Outcomes a. Verify COs and knowledge levels in internal and assignment question papers. b. Verify CO/PO attainment calculation for all the courses	Pending	Document pending	Pending
	Details of faculty evaluation and action taken. Students Feedback a. two sets of feedback for each semester b. % of students participated c. corrective actions taken for improving teaching effectiveness	Pending	Document pending	Pending
	Departmental library registers showing volume and title of books, journals etc.	Completed	All library files updated and present	Completed



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	Platform used for LMS/Course materials and lectures uploaded	Updated	Updated	Updated
	NPTEL/SWAYAM course materials recommended	Yes (ongoing)	Ongoing	
	Register showing activity points	NA	Not available	
	Updated Green Cards	NA	Not available	
	Categorisation of students with list	Pending	Pending	Pending
	Details of value added courses	To be done in July	To be done in July	NA
	Feedback from Students, Alumni, Employer & Faculty	Pending	Pending	Pending
	Faculty and staff profile	updated	Updated	



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



Paper publication	Complete	Updated	
Conference Details	updated	International conference to be organized in August	
Refresher Course	To be updated	To be organized	
Training Program	To be completed	To be organized in May 2022	
FDP Details	Completed	Updated	
Funded FDPs	NIL	NIL	
DEPARTMENT FILES IN LINE WITH NBA/NAAC ACCREDITATION			
A1 - Files (Academic Files)			
FOR LAST 3 YEARS			

NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
 (Approved by AICTE, Affiliated to KTU, Kerala)

1	Time table (with tutorials) - Staff arranged in hierarchical order	Completed	Completed	Completed
	Internal exam QP (DQAC Approved)	Completed	Updated	
	Innovative Teaching approaches	Completed	Updated	
	Tutorial samples with log book	NA	None	
	SFR (Computation as per NBA)	Yes	Yes	
	A2 - File (Academic Files)			
	Course files (Last 3 years)	Yes	Available	
	A3 - Files (Academic Files)			
	CO-PO, CO-PSO mapping	Pending	Pending	

	PO, PSO attainment	Pending	Pending	
	Curriculum Gap (with Gaps and course identified to address the POs, PSOs)	Pending	Pending	
	Project (a. List of projects with guides and students b. Panels, rubrics and marks of evaluation c. PO, PSO attainment)	On going	On going	
	Subject Group (List of groups and Faculty, allotment by HoD, Minutes of each group, Programs/Activities organized under each group)	Pending	Pending	
	B - Files (Staff Files)			
	Add-on Courses (<i>Update these files for period July- June</i>)	updated	Updated	
	Research funding (a. Internal, b. External)			
	Consultancy	updated	updated	



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



Collaborative works/research and outcomes	Nil	None available	
Journal Publications: ISI, SCOPUS, Other Journals	Updated	Updated	
Publications: Conference, Books, Book chapters, Articles, etc.	Completed	One book Published (Exim Management) By Dr. Suriakala	
IPR (and related activities)	One Patent		
MoU	Updated	None done	
FDP Attended: (a. Outside own college b. Inside own college)	Updated	Updated	
FDP/Conference Organized	Conference to be organized in August	Updated as per present status	
Awards / Honors	NIL	None received	



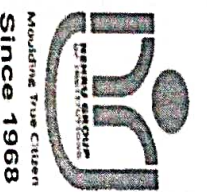
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



External Interaction	Updated	Updated (Transformation Talks and Webinars)	
C - Files (Student Files)			
Roll List (for last 3 years)	Yes	Available	
KTU Results and Analysis (Semester-wise)	Yes	Available	
Success Data of Passed Out Batch.	Yes	Available	
Placement (Proof- for previous Acad Year)	Yes	Available	
Higher Studies (Proof- for previous Acad Year)	NIL	No one gone for higher studies	
Career/Skill Development Programs	Placement training Done	Yes available	
Achievements	Yes	Available	



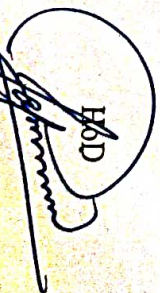
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



Entrepreneurship / Start ups	NIL	No entrepreneurs	
Professional Society Activity	Updated	Available	
D - Files (Miscellaneous Files)			
Staff Extension Activities	NIL	None	
Staff Duties/Responsibilities	Completed	Available	
Staff/Guest Appointment Details	NA	NA	
Guest Acquaintance (Semester-wise)	updated	Updated	
Department Budget	NA	NA	

Auditor 
Dr. DEEPA.A

Auditee
Alex, NSM



Head of the Department
Department of Management Studies
NCERC, Thiruvananthapuram - 686558



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



IQAC INTERNAL ACADEMIC AUDIT REPORT

ACADEMIC YEAR : 2020-21

SEMESTER : EVEN(First Audit)

AUDITED DEPARTMENT : ME AUDITED BY : Mr.Midhunraj P K & Ms. Saijitha A S

DATE : 07/06/2022

Sl. NO	Key Aspects	Status of Documents	Auditor Remarks	Completion of pending documents
1	Minutes and action taken reports of course/class committees of UG/PG a. Verify minutes and action taken report	AVAILABLE	Three meetings for S8 and Two meetings has conducted for S2,S4 and S6 Btech and verified the minutes and action taken report. All faculties who handling the classes and 3 students from each class were attended for first and second meeting. (ON 03/05/22) – Meeting I (ON 25/05/22) – Meeting II	COMPLETED



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



2	Minutes and action taken reports of advisory meetings a. Verify minutes and action taken report	AVAILABLE	The meeting has conducted on the following dates and verified the minutes and action taken report. S2 B TECH - (ON 03/05/22) – Meeting I S2 B TECH – (ON 25/05/22) – Meeting II	COMPLETED
---	--	-----------	---	-----------



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



3	Course File for all the courses a. Course file for all courses (theory, practical, seminar, project, etc.) b. Examine course file for all necessary details such as (i) Time slot of classes (ii) Syllabus (iii) Course plan (iv) Details of assignments, tutorials (v) Attendance of students (vi) Marks awarded for assignments, internal exams etc. (vii) Topics covered (viii) Extra classes engaged Maintenance of course folder a. The course folder shall contain (i) Course file (ii) Sample Assignments (iii) Sample Answer books of internal exams with QP (iv) QP of end exams (v) Statements of Internal Evaluation marks (vi) Module notes	AVAILABLE	1. Time slot verified 2. Syllabus pasted 3. Course plan verified 4. Assignments completed, 3 questions from first three modules, each carries 10 marks, total 30 marks 5. Series test marks verified 6. All modules completed for S8. 3 modules completed for S2, S4 and S6 7. No extra classes needed 8. Sample assignments and series booklets are available 9. Series test QP and scheme are available Notes available	COMPLETED
4	Schedule of Time Table a. Verify class-wise and individual	AVAILABLE	Verified time table. Contact class timing is from 9.00 AM to	COMPLETED



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	faculty-wise time table		4.00 PM 6 hours per day with 60 minutes duration Revision class timetable also verified.	
5	Conduct of Tutorial Classes a. Verify the tutorial logbook b. Size of tutorial classes c. Number of students assigned to a faculty d. mark tutorial hour in the timetable. Sample tutorial book	AVAILABLE	Tutorial logbook and sample notebooks are verified Tutorial hours are marked in the timetable.	COMPLETED
6	Internal test question paper and sample answer scripts a. Assessment can be done based on the following 1. punctuality of valuation 2. Question papers & scheme of evaluation 3 sample answer sheets minimum	AVAILABLE	All the faculties valued and submitted the Answer papers on or before due date. 1. Three sets of QP and scheme are available for series test Three sample answer sheets available	COMPLETED
7	Syllabus coverage of practical course		1. S2 Lab – 50% Completed 2. S4, S6 lab – 40% completed	COMPLETED





NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



8	Laboratory manual, records and course file for all practical courses a. Verify course diary, course file, log book of equipment, work record of students (3numbers). b. Assessment can be done based on (i) number of students in a batch (ii) time given for doing the experiment (iii) number of experiments conducted as per syllabus (iv) Check syllabus of practical class pasted in front of the course diary (v) Check evaluation on the same date (vi) Mark distribution details	AVAILABLE	1. Verified course file 2. Syllabus pasted in Course File 3. Mark distribution of experiments as verified 4. S2 Lab – 50% Completed 5. S4, S6 lab – 40% completed 6. S8 internal exams completed	COMPLETED
9	Equipment log registers, stock registers used in Laboratories	REGISTER AVAILABLE	Stock and issue register are available and Verified	COMPLETED
10	Conduct of series test	CONDUCTED	1. Series test I & II result analysis is available for S8 and verified. 2. Series test I result analysis is available for S2, S4, S6 and verified Conducted as per academic schedule	COMPLETED



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



11	Project (Mini project/Design project/Final semester project) progress review reports. Quality & Progress of projects Can be accessed from a. Course file, project review records, outcome of projects such as papers published, patents, awards etc. b. project team maximum of 5 c. includes literature survey, formulation of objectives, formulation of hypothesis/design/methodology, formulation of work plan, preparation of report d. sample fair report	AVAILABLE and VERIFIED	Project All reviews completed for CSE S8 students Sample reports are available	COMPLETED
12	Mentoring details	REGISTER AVAILABLE	Verified the details. 8 Students assigned for one faculty	COMPLETED



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



13	Result Analysis of previous semester Performance of students in the previous semester a. Update with revaluation results b. subject wise and overall pass percentage c. check green card updating	AVAILABLE AND VERIFIED	1. Updated last university result and verified with revaluation result. 2. Subject wise pass percentage is available 3. Green Cards verified and all batches green cards were updated.	COMPLETED
14	Details showing the conduct of remedial classes. a. Check maintaining register for recording details of remedial classes b. Attendance of students	REMEDIAL CLASS REGISTER AVAILABLE	Recorded class details in the register	COMPLETED
15	Details showing the conduct of Minor classes Check maintaining course file	AVAILABLE	Course files and Course folders are available and verified	COMPLETED



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	for recording details of minor classes			
16	Details showing the conduct of Honour classes Check maintaining course file for recording details of honour classes	AVAILABLE	Course files for HONOURS are available and verified	COMPLETED
17	Assessment of Outcomes a. Verify COs and knowledge levels in internal and assignment question papers. b. Verify CO/PO attainment calculation for all the courses	AVAILABLE	CO/PO knowledge levels and attainment calculations and files are available and verified	COMPLETED
18	Details of faculty evaluation and action taken on it. Students Feedback a. two sets of feedback for each semester b. % of students participated c. corrective actions taken for	AVAILABLE	First set feedback in the current semester was collected and the grades calculated. Detailed Report is available	COMPLETED



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	improving teaching effectiveness				
19	Department library register showing volume and title of books, journals etc.	REGISTER AVAILABLE	Stock register and issue register available.	COMPLETED	
20	Platform used for LMS/Course materials and lectures uploaded	VERIFIED	Course Materials uploaded in Google class room and college website	COMPLETED	
21	NPTTEL/SWAYAM course materials recommended	AVAILABLE	Available and verified.	COMPLETED	
22	Register showing activity points	REGISTERS AVAILABLE	S4, S6, S8 Registers were updated. For S2 there is no entry till date	COMPLETED	
23	Updated Green Cards	UPDATED	Green Cards verified and all batches green cards were updated.	COMPLETED	
24	Categorisation of students with list	AVAILABLE	Students' categorisation list available and verified.	COMPLETED	



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



25	Details of value added courses	AVAILABLE	Value added courses and details are available.	COMPLETED
26	Feedback from Students, Alumni, Employer & Faculty	Partially Available	Feedback from Students and Alumni are available and verified	Need to collect feedback from Employer and Faculty
27	Faculty and staff profile	AVAILABLE	Faculty and staff profile documents are available for all faculties and staff.	COMPLETED
28	Paper publication	AVAILABLE AND VERIFIED	List and details of paper publications file are available.	COMPLETED
29	Conference Details	AVAILABLE AND VERIFIED	List and details of conference file are available.	COMPLETED
30	Refresher Course	AVAILABLE	List and details of refresher courses are available. No refresher courses are attended or organized in even semester of academic year 2021-22	COMPLETED
31	Training Program	AVAILABLE	List and details of training program are available. No training programs were attended or organized in even semester of	COMPLETED



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



		academic year 2021-22	
32	FDP Details	AVAILABLE AND VERIFIED	COMPLETED
		List and details of FDP file are available.	
33	Funded FDPs	NOT AVAILABLE	COMPLETED
		Funded FDPs are not available	
DEPARTMENT FILES IN LINE WITH NBA/NAAC ACCREDITATION			
	A1 - Files (Academic Files)		
	FOR LAST 3 YEARS		
34		AVAILABLE	COMPLETED
	Time table (with tutorials) - Staff arranged in hierarchical order	Time table for all classes are available and verified Contact class timing is from 9.00 AM to 4.00 PM 6 hours per day with 60 minutes duration Revision class timetable also verified.	
35	Internal exam QP (DQAC Approved)	AVAILABLE	COMPLETED
		Approved sets of Internal exam QP are available and Verified	



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



36	Innovative Teaching approaches	AVAILABLE	Innovative Teaching approaches such as ICT enabled teaching, group assignment, interactive learning, video lectures, group discussion, tutorial, peer learning and project based learning are verified	COMPLETED
37	Tutorial samples with log book	AVAILABLE	Tutorial logbook and sample notebooks are verified Tutorial hours are marked in the timetable.	COMPLETED
38	SFR (Computation as per NBA)	AVAILABLE	SFR calculated and documents are available	COMPLETED
A2 - File (Academic Files)				
39	Course files (Last 3 years)	AVAILABLE	Course files with sample assignment books and sample test books are available and verified	COMPLETED
A3 - Files (Academic Files)				
40	CO-PO, CO-PSO mapping	AVAILABLE	CO-PO, CO-PSO mapping of all courses are available and verified.	COMPLETED

NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

41	PO, PSO attainment	AVAILABLE	Calculated documents of PO, PSO attainment of all courses are available and verified.	COMPLETED
42	Curriculum Gap (with Gaps and course identified to address the POs, PSOs)	AVAILABLE	Feedback files indicating reason for curriculum gap are available and verified	COMPLETED
43	Project (a. List of projects with guides and students b. Panels, rubrics and marks of evaluation c. PO, PSO attainment)	AVAILABLE and VERIFIED	Design projects: Not Applicable Project All reviews completed for CSE S8 students Sample reports are available	COMPLETED
44	Subject Group (List of groups and Faculty, allotment by HoD, Minutes of each group, Programs/Activities organized under each group)	AVAILABLE and VERIFIED	List of subject group, faculties and activities are available	COMPLETED
B - Files (Staff Files)				
45	Add-on Courses (<i>Update these files</i>)	AVAILABLE	List of Add-on courses and details are available. 3 add-on courses are there in	COMPLETED



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	<i>for period July- June</i>		even semester of academic year 2021-22	
	Research funding (a. Internal, b. External)			
46	Consultancy	NOT AVAILABLE	Not available	COMPLETED
47	Collaborative works/research and outcomes	NOT AVAILABLE	Not available	COMPLETED
48	Journal Publications: ISI, SCOPUS, Other Journals	AVAILABLE AND VERIFIED	List and details of journal publications file are available.	COMPLETED
49	Publications: Conference, Books, Book chapters, Articles, etc.	AVAILABLE AND VERIFIED	List and details of conference file are available.	COMPLETED
50	IPR (and related activities)	AVAILABLE AND VERIFIED	List and details of IPR file are available.	COMPLETED
51	MoU	AVAILABLE AND VERIFIED	List and details of MoU file are available.	COMPLETED
52	FDP Attended: (a. Outside own college b. Inside own college)	AVAILABLE AND VERIFIED	List and details of FDP file are available.	COMPLETED

NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

53	FDP/Conference Organized	AVAILABLE AND VERIFIED	List and details of FDP organization file are available.	COMPLETED
54	Awards / Honors	NOT AVAILABLE	Not available	COMPLETED
55	External Interaction	NOT AVAILABLE	Not available	COMPLETED
C - Files (Student Files)				
56	Roll List (for last 3 years)	AVAILABLE AND VERIFIED	Roll List for last 3 years are available	COMPLETED
57	KTU Results and Analysis (Semester-wise)	AVAILABLE AND VERIFIED	KTU Results and Analysis are available	COMPLETED
58	Success Data of Passed Out Batch	AVAILABLE AND VERIFIED	Available	COMPLETED
59	Placement (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Placement details are Available	COMPLETED
60	Higher Studies (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Higher Studies details are Available	COMPLETED



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)

61	Career/Skill Development Programs	AVAILABLE AND VERIFIED	Career/Skill Development Programs details are Available	COMPLETED
62	Achievements	AVAILABLE AND VERIFIED	Department Achievements details are Available	COMPLETED
63	Entrepreneurship / Start ups	AVAILABLE AND VERIFIED	Entrepreneurship / Start ups details are Available	COMPLETED
64	Professional Society Activity	AVAILABLE AND VERIFIED	Professional Society Activity details are Available	COMPLETED
D - Files (Miscellaneous Files)				
65	Staff Extension Activities	AVAILABLE AND VERIFIED	Staff Extension Activities details are Available	COMPLETED
66	Staff Duties/Responsibilities	AVAILABLE AND VERIFIED	Staff Duties/Responsibilities details are Available	COMPLETED
67	Guest Acquaintance (Semester-wise)	AVAILABLE AND VERIFIED	Guest Acquaintance details are Available	COMPLETED

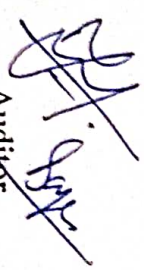




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



68	Department Budget	AVAILABLE AND VERIFIED	Department Budget files are Available	COMPLETED
----	-------------------	---------------------------	---------------------------------------	-----------


Auditor


Auditee


HOD



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



IQAC INTERNAL ACADEMIC AUDIT REPORT (2021-22)

ACADEMIC YEAR : 2021-22

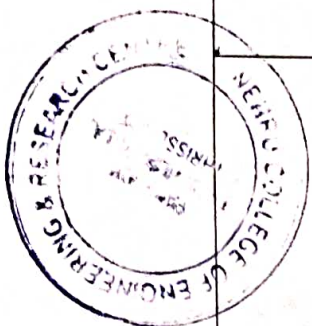
SEMESTER : ODD

AUDITED DEPARTMENT : CSE
ECe

AUDITED BY : MR.VIPIN KM& MR.RAHUL R

DATE : 02/02/2022

Sl. NO	Key Aspects	Status of Documents	Auditor Remarks	Completion of pending documents
1	Minutes and action taken reports of course/class committees of UG/PG a. Verify minutes and action taken report	AVAILABLE	Three meetings has conducted for S7 Brech and verified the minutes and action taken report. All faculties who handling the classes and 3 students from each class were attended for first and second meeting. The third meeting was comprised of faculty members without students. S7 B TECH - (ON 12/12/21) – Meeting II S7 B TECH - (ON 16/01/22) – Meeting III	COMPLETED <u>4</u>



PRINCIPAL
Neeru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Thrissur Dt.
Pin - 680 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



2	Minutes and action taken reports of advisory meetings a. Verify minutes and action taken report	AVAILABLE	The meeting has conducted on the following dates and verified the minutes and action taken report. S3 B TECH - (ON 14/01/22) – Meeting II S5 B TECH – (ON 14/01/22) – Meeting II
			COMPLETED



PRINCIPAL
Neeru College of
Engineering and Research Centre
Thiruvananthapuram, Thiruvananthapuram
Pin - 680 597, Kerala



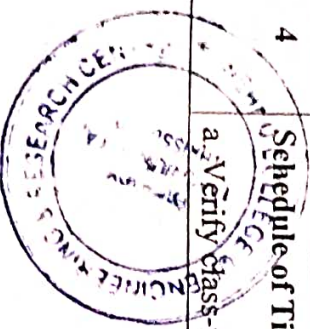
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



3	Course File for all the courses a. Course file for all courses (theory, practical, seminar, project, etc.) b. Examine course file for all necessary details such as (i) Time slot of classes (ii) Syllabus (iii) Course plan (iv) Details of assignments, tutorials (v) Attendance of students (vi) Marks awarded for assignments, internal exams etc. (vii) Topics covered (viii) Extra classes engaged Maintenance of course folder a. The course folder shall contain (i) Course file (ii) Sample Assignments (iii) Sample Answer books of internal exams with QP (iv) QP of end exams (v) Statements of Internal Evaluation marks (vi) Module notes	AVAILABLE	1. Time slot verified 2. Syllabus pasted 3. Course plan verified 4. Assignments completed, 3 questions from first three modules, each carries 10 marks, total 30 marks 5. Series test marks verified 6. All modules completed for S7. 4 modules completed for S3 and S5 7. No extra classes needed 8. 3 sample assignments and series booklets are available 9. Series test 1&2 QP and scheme are available Notes available	COMPLETED
4	Schedule of Time Table a. Verify class-wise and individual	AVAILABLE	Verified time table. Contact class timing is from 9.00 AM to	COMPLETED

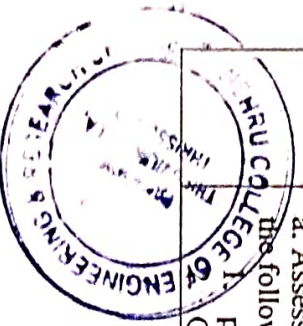




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	faculty-wise time table		4.00 PM Online time table Monday to Thursday – 8.30 am to 1.30 pm, Friday – 8.00 am to 12.30 pm, 5 hours per day with 50 minutes duration Revision class timetable also verified.	
5	Conduct of Tutorial Classes a. Verify the tutorial logbook b. Size of tutorial classes c. Number of students assigned to a faculty d. mark tutorial hour in the timetable. Sample tutorial book	AVAILABLE	Tutorial logbook and sample notebooks are verified Tutorial hours are marked in the timetable.	COMPLETED
6	Internal test question paper and sample answer scripts a. Assessment can be done based on the following punctuality of valuation Question papers & scheme of	AVAILABLE	All the faculties valued and submitted the Answer papers on or before due date. 1. Three sets of QP and scheme are available for series test 1 & 2	COMPLETED



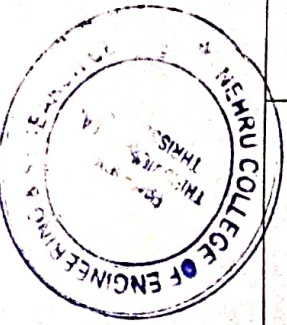
45



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



evaluation		Three sample answer sheets available	
	3 sample answer sheets minimum		
7	Syllabus coverage of practical course	1. S7 Labs are completed 2. S1 Lab – 60% Completed 3. S3, S5 lab – 80% completed	COMPLETED
8	Laboratory manual, records and course file for all practical courses a. Verify course diary, course file, log book of equipment, work record of students (3 numbers). b. Assessment can be done based on (i) number of students in a batch (ii) time given for doing the experiment (iii) number of experiments conducted as per syllabus (iv) Check syllabus of practical class pasted in front of the course diary (v) Check evaluation on the same date (vi) Mark distribution details	1. Verified course file 2. Syllabus pasted in Course File 3. Mark distribution of experiments as verified 4. S7 Labs are completed 5. S1 Lab – 50% Completed 6. S3, S5 lab – 80% completed 7. S7 internal marks published	COMPLETED
9	Equipment log registers, stock registers used in Laboratories	Stock and issue register are available and Verified	COMPLETED

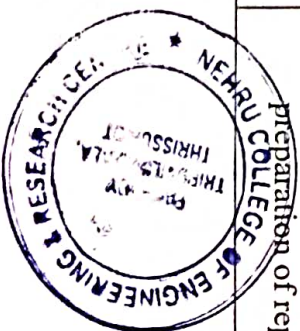




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



10	Conduct of series test	CONDUCTED	1. Series test I & II result analysis is available for S7 and verified. 2. Series test I result analysis is available for S1, S3, S5 and verified Conducted as per academic schedule	COMPLETED
11	Project (Mini project/Design project/Final semester project) progress review reports. Quality & Progress of projects Can be accessed from a. Course file, project review records, outcome of projects such as papers published, patents, awards etc. b. project team maximum of 5 c. includes literature survey, formulation of objectives, formulation of hypothesis/design/methodology, formulation of work plan, preparation of report	AVAILABLE and VERIFIED	Seminar of S7 ECE completed Design projects: Not Applicable Project 3 reviews completed for ECE S7 students Sample reports are available	COMPLETED

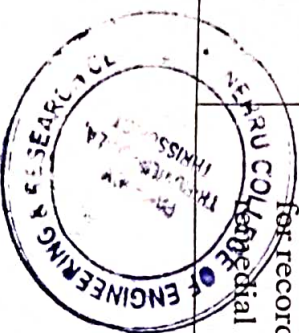




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited) (Approved by AICTE, Affiliated to KTU, Kerala)



	d. sample fair report			
12	Mentoring details	REGISTER AVAILABLE	Verified the details. 8 Students assigned for one faculty	COMPLETED
13	Result Analysis of previous semester Performance of students in the previous semester a. Update with revaluation results b. subject wise and overall pass percentage c. check green card updating	AVAILABLE AND VERIFIED	1. Updated last university result and verified with revaluation result. 2. Subject wise pass percentage is available 3. Green Cards verified and all batches green cards were updated.	COMPLETED
14	Details showing the conduct of remedial classes. a. Check maintaining register for recording details of remedial classes	REMEDIAL CLASS REGISTER AVAILABLE	Recorded class details in the register	COMPLETED

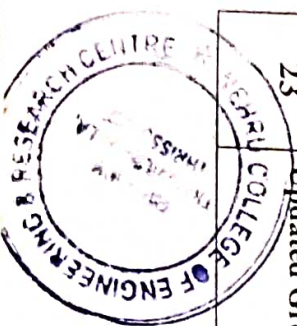




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	Students Feedback a. two sets of feedback for each semester b. % of students participated c. corrective actions taken for improving teaching effectiveness			
19	Department library register showing volume and title of books, journals etc.	REGISTER AVAILABLE	Stock register and issue register available.	COMPLETED
20	Platform used for LMS/Course materials and lectures uploaded	VERIFIED	Course Materials uploaded in Google class room and college website	COMPLETED
21	NPTTEL/SWAYAM course materials recommended	AVAILABLE	Available and verified.	COMPLETED
22	Register showing activity points	REGISTERS AVAILABLE	S5, S7 Registers were updated. For S3 there is no entry till date	COMPLETED
23	Updated Green Cards	UPDATED	Green Cards verified and all batches green	COMPLETED



PRINCIPAL

Nehru College of
Engineering and Research Centre
Thiruvananthapuram, Thiruvananthapuram
Pin - 580 567, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



			cards were updated.	
24	Categorisation of students with list	AVAILABLE	Students' categorisation list available and verified.	COMPLETED
25	Details of value added courses	AVAILABLE	Value added courses and details are available. 3 value added courses are available in odd semester of academic year 2021-22	COMPLETED
26	Feedback from Students, Alumni, Employer & Faculty	Partially Available	Feedback from Students and Alumni are available and verified	Need to collect feedback from Employer and Faculty
27	Faculty and staff profile	AVAILABLE	Faculty and staff profile documents are available for all faculties and staff.	COMPLETED
28	Paper publication	AVAILABLE AND VERIFIED	List and details of paper publications file are available. 5 papers published in odd semester of academic year 2021-22	COMPLETED
29	Conference Details	AVAILABLE AND VERIFIED	List and details of conference file are available. Details of 5 conferences are available in odd semester of academic year	COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pattanam, Thiruvananthapuram
Pin - 690 597, Kerala

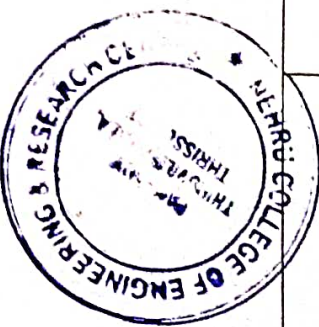


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



			2021-22	
30	Refresher Course	AVAILABLE	List and details of refresher courses are available. No refresher courses are attended or organized in odd semester of academic year 2021-22	COMPLETED
31	Training Program	AVAILABLE	List and details of training program are available. No training programs were attended or organized in odd semester of academic year 2021-22	COMPLETED
32	FDP Details	AVAILABLE AND VERIFIED	List and details of FDP file are available. Details of 3 FDPs are available in odd semester of academic year 2021-22	COMPLETED
33	Funded FDPs	NOT AVAILABLE	Funded FDPs are not available	COMPLETED
DEPARTMENT FILES IN LINE WITH NBA/NAAC ACCREDITATION				
A1 - Files (Academic Files)				
FOR LAST 3 YEARS				



PRINCIPAL
NEHRU College of
Engineering and Research Centre
Thiruvivamala, Thiruvavur, Di
Pan • 680 597, Kerala

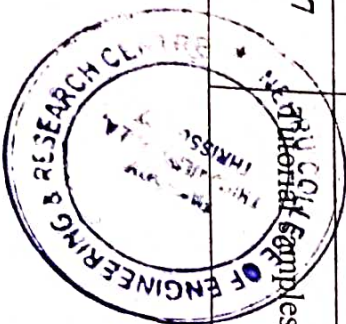


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



34	AVAILABLE	Time table for all classes are available and verified Contact class timing is from 9.00 AM to 4.00 PM Online time table Monday to Thursday – 8.30 am to 1.30 pm, Friday – 8.00 am to 12.30 pm, 5 hours per day with 50 minutes duration Revision class timetable also verified.	COMPLETED
35	AVAILABLE	Approved sets of Internal exam QP are available and Verified	COMPLETED
36	AVAILABLE	Innovative Teaching approaches such as ICT enabled teaching, group assignment, interactive learning, video lectures, group discussion, tutorial, peer learning and project based learning are verified	COMPLETED
37	AVAILABLE	Tutorial logbook and sample notebooks are verified	COMPLETED



Principal

Nehru College of
Engineering and Research Centre
Pampady, Thiruvananthapuram
Pin - 690 557, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



			Tutorial hours are marked in the timetable.	
38	SFR (Computation as per NBA)	AVAILABLE	Number of faculties = 10 Number of students = 216 SFR = 21.6	COMPLETED
	A2 - File (Academic Files)			
39	Course files (Last 3 years)	AVAILABLE	Course files with sample assignment books and sample test books are available and verified	COMPLETED
	A3 - Files (Academic Files)			
40	CO-PO, CO-PSO mapping	AVAILABLE	CO-PO, CO-PSO mapping of all courses are available and verified.	COMPLETED
41	PO, PSO attainment	AVAILABLE	Calculated documents of PO, PSO attainment of all courses are available and verified.	COMPLETED
42	Curriculum Gap (with Gaps and course identified to address the POs, PSOs)	AVAILABLE	Feedback files indicating reason for curriculum gap are available and verified	COMPLETED

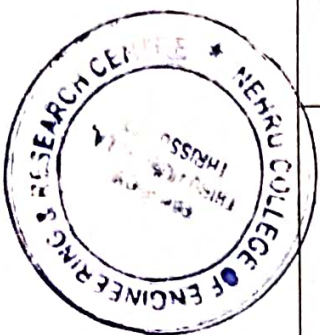




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



43	Project (a. List of projects with guides and students b. Panels, rubrics and marks of evaluation c. PO, PSO attainment)	AVAILABLE and VERIFIED	Design projects: Not Applicable Project 3 reviews completed for CSE S7 students Sample reports are available	COMPLETED
44	Subject Group (List of groups and Faculty, allotment by HOD, Minutes of each group, Programs/Activities organized under each group)	AVAILABLE and VERIFIED	List of subject group, faculties and activities are available	COMPLETED
B - Files (Staff Files)				
45	Add-on Courses (<i>Update these files for period July-June</i>) Research funding (a. Internal, b. External)	AVAILABLE	List of Add-on courses and details are available. 3 add-on courses are there in odd semester of academic year 2021-22	COMPLETED
46	Consultancy	NOT AVAILABLE	Not available	COMPLETED



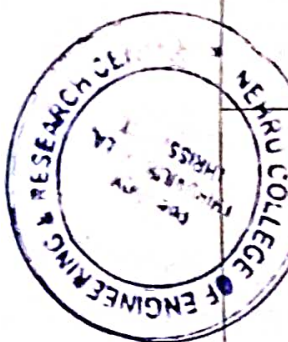
PRINCIPAL
Nehru College of
Engineering and Research Centre
Panipady, Thiruvananthapuram
Pin - 690 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
 (Approved by AICTE, Affiliated to KTU, Kerala)



47	Collaborative works/research and outcomes	NOT AVAILABLE	Not available	COMPLETED
48	Journal Publications: ISI, SCOPUS, Other Journals	AVAILABLE AND VERIFIED	List and details of journal publications file are available. 5 papers published in odd semester of academic year 2021-22	COMPLETED
49	Publications: Conference, Books, Book chapters, Articles, etc.	AVAILABLE AND VERIFIED	List and details of conference file are available. Details of 5 conferences are available in odd semester of academic year 2021-22	COMPLETED
50	IPR (and related activities)	AVAILABLE AND VERIFIED	List and details of IPR file are available. 5 patents were registered in academic year 2021-22	COMPLETED
51	MoU	AVAILABLE AND VERIFIED	List and details of MoU file are available. 1 MoU signed in odd semester of academic year 2021-22	COMPLETED
52	FDP Attended: (a. Outside own college b. Inside own college)	AVAILABLE AND VERIFIED	List and details of FDP file are available. 5 faculties attended FDP in odd semester of academic year 2021-22	COMPLETED
53	FDP/Conference Organized	AVAILABLE AND VERIFIED	List and details of FDP organization file are available.	COMPLETED

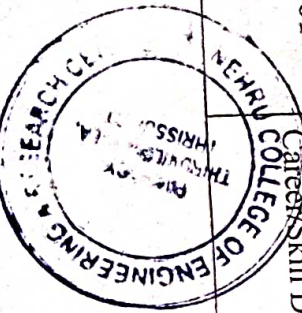


PRINCIPAL
 Nehru College of
 Engineering and Research Centre
 Puthupatta, Thiruvananthapuram
 Pin - 590 597 Kerala



(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)

54	Awards / Honors	NOT AVAILABLE	Not available	COMPLETED
55	External Interaction	NOT AVAILABLE	Not available	COMPLETED
C - Files (Student Files)				
56	Roll List (for last 3 years)	AVAILABLE AND VERIFIED	Roll List for last 3 years are available	COMPLETED
57	KTU Results and Analysis (Semester-wise)	AVAILABLE AND VERIFIED	KTU Results and Analysis are available	COMPLETED
58	Success Data of Passed Out Batch	AVAILABLE AND VERIFIED	Available	COMPLETED
59	Placement (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Placement details are Available	COMPLETED
60	Higher Studies (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Higher Studies details are Available	COMPLETED
61	Career/Skill Development Programs	AVAILABLE AND VERIFIED	Career/Skill Development Programs details are Available	COMPLETED



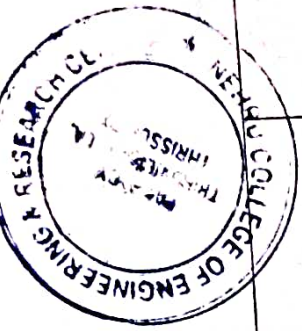
PRINCIPAL

4



(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)

62	Achievements	AVAILABLE AND VERIFIED	Department Achievements details are Available	COMPLETED
63	Entrepreneurship / Start ups	AVAILABLE AND VERIFIED	Entrepreneurship / Start ups details are Available	COMPLETED
64	Professional Society Activity	AVAILABLE AND VERIFIED	Professional Society Activity details are Available	COMPLETED
D - Files (Miscellaneous Files)				
65	Staff Extension Activities	AVAILABLE AND VERIFIED	Staff Extension Activities details are Available	COMPLETED
66	Staff Duties/Responsibilities	AVAILABLE AND VERIFIED	Staff Duties/Responsibilities details are Available	COMPLETED
67	Guest Acquaintance (Semester-wise)	AVAILABLE AND VERIFIED	Guest Acquaintance details are Available	COMPLETED
68	Department Budget	AVAILABLE AND VERIFIED	Department Budget files are Available	COMPLETED



PRINCIPAL

Netheru College of
Engineering and Research Centre
Thiruvikramam, Thiruvananthapuram
Pin - 600 597, Kerala

IQAC INTERNAL ACADEMIC AUDIT REPORT

ACADEMIC YEAR : 2021-22 SEMESTER : ODD/EVEN : ODD(S1,S3,S5) (SECOND AUDIT)

AUDITED DEPARTMENT : MCA_AUDITED BY : Mr. Alex Kuruvila

DATE : 24/03/2022

	Key Aspects	Status of Documents	Auditor Remarks	Completion of pending documents
	Minutes and action taken reports of course/class committees of UG/PG a. Verify minutes and action taken report	a. Completed	Class committee and course committee conducted as per academic calendar. Action taken report is also included	Nil
	Minutes and action taken reports of advisory meetings a. Verify minutes and action taken report	a. Completed	Advisory meetings conducted and action taken report present	Nil
	Course File for all the courses • Course file for all courses (theory, practical, seminar, project, etc.) • Examine course file for all necessary details such as • Time slot of classes • Syllabus • Course plan • Details of assignments, tutorials • Attendance of students • Marks awarded for assignments, internal exams	All Complete till date	Course file of all subjects present and completed 1. Time slots present 2. Syllabus present 3. Course plan included 4. Assignment details present 5. Attendance taken and updated	Nil

etc. • Topics covered • Extra classes engaged Maintenance of course folder a. The course folder shall contain • Course file • Sample Assignments • Sample Answer books of internal exams with QP • QP of end exams • Statements of Internal Evaluation marks • Module notes	Course folder complete till date	6. Results of internals and assignments present All required document present in the course folder	Nil
Schedule of Time Table a. Verify class-wise and individual faculty-wise time table	Timetable available class wise		Individual Timetable pending
Conduct of Tutorial Classes • Verify the tutorial logbook • Size of tutorial classes • Number of students assigned to a faculty • Hours of tutorial classes' per subject per week, mark tutorial hour in the timetable.	Completed	Completed	• Hours of tutorial classes' per subject per week, mark

	Sample tutorial book			tutorial hour in the timetable.
	Internal test question paper and sample answer scripts - Assessment can be done based on the following - punctuality of valuation - Question papers & scheme of evaluation 3 sample answer sheets minimum	Completed	Assessed Valuation done on time QP and Sample answer script present Sample answer scripts present	Nil
	Syllabus coverage of practical course	Completed	Completed	Nil
	Laboratory manual, records and course file for all practical courses - Verify course diary, course file, log book of equipment, work record of students (3 numbers). - Assessment can be done based on - number of students in a batch - time given for doing the experiment - number of experiments conducted as per syllabus - Check syllabus of practical class pasted in front of the course diary - Check evaluation on the same date - Mark distribution details	Completed	Completed	Nil
	Equipment log registers, stock registers used in Laboratories	Completed	Completed	Nil
	Conduct of series test	Completed	First & second series exams	NIL

			completed	
	Project (Mini project/Design project/Final semester project) progress review reports. Quality & Progress of projects Can be accessed from a. Course file, project review records, outcome of projects such as papers published, patents, awards etc. b. project team maximum of 5 c. includes literature survey, formulation of objectives, formulation of hypothesis/design/methodology, formulation of work plan, preparation of report d. sample fair report	Mini Project reports completed	Completed	Nil
	Mentoring details	Available	All faculty wise mentor report available	Nil
	Result Analysis of previous semester Performance of students in the previous semester a. Update with revaluation results b. subject wise and overall pass percentage c. check green card	Updated	2020-22 batch only semester 1 results published and present with result analysis	Nil

	updating			
	Details showing the conduct of remedial classes. a. Check maintaining register for recording details of remedial classes b. Attendance of students	Available	Available in the course files	Nil
	Details showing the conduct of Minor classes Check maintaining course file for recording details of minor classes	NA	No Minor Classes	
	Details showing the conduct of Honour classes Check maintaining course file for recording details of honour classes	NA	No Honour Classes	
	Assessment of Outcomes - Verify COs and knowledge levels in internal and assignment question papers. - Verify CO/PO attainment calculation for all the courses	Pending	Updates on the documents	Pending
	Details of faculty evaluation and action taken on it. Students Feedback a. two sets of feedback for each semester b. % of students participated	College level completed C. Not complete	Completed	corrective actions taken for improving teaching effectiveness- Pending

	Project (a. List of projects with guides and students b. Panels, rubrics and marks of evaluation c. PO, PSO attainment)	a. Completed b. Completed c. . Pending	Completed	C.PO, PSO attainment
	Subject Group (List of groups and Faculty, allotment by HoD, Minutes of each group, Programs/Activities organized under each group)	NA	Not Available	
B – Files (Staff Files)				
	Add-on Courses (<i>Update these files for period July-June</i>) Research funding (a. Internal, b. External)	Yet to complete	UPdated	Add on course
	Consultancy	updated	Updated	
	Collaborative works/research and outcomes	Nil	Nil	
	Journal Publications: ISI, SCOPUS, Other Journals	Updated	Updated	
	Publications: Conference, Books, Book chapters, Articles, etc.	Completed	Completed	
	IPR (and related activities)	NIL	NIL	
	MoU	Updated	Updated	
	FDP Attended: (a. Outside own college b. Inside own college)	Updated	Updated	
	FDP/Conference Organized	Completed	Documents Available	
	Awards / Honors	Updated	None Received	
	External Interaction	Updated	Updated	

C – Files (Student Files)			
Roll List (for last 3 years)	Yes	Available	
KTU Results and Analysis (Semester-wise)	Yes	Available	Nil
Success Data of Passed Out Batch	Yes	Available	Nil
Placement (Proof- for previous Acad Year)	Yes	Available	Nil
Higher Studies (Proof- for previous Acad Year)	NIL	Available	
Career/Skill Development Programs	Yes	Available	Nil
Achievements	Yes	Available	Need to complete
Entrepreneurship / Start ups	NIL	No entrepreneurs	
Professional Society Activity	Updated	Available	Nil
D – Files (Miscellaneous Files)			
Staff Extension Activities	NIL	None	
Staff Duties/Responsibilities	Completed	Available	
Staff/Guest Appointment Details	NA	Not Available	
Guest Acquaintance (Semester-wise)	Nil	NA	Nil
Department Budget	NA	Not Available	Nil

MA
Auditor

Alex, MBA
NCRRC

Deepa
Auditee

DR. DEEPA.A

HOD *40*

Dr. Sudhanshu S. Manar



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



IQAC INTERNAL ACADEMIC AUDIT REPORT (2021-22)

ACADEMIC YEAR : 2021-22

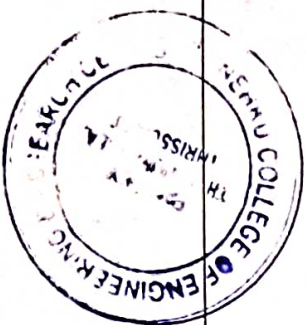
SEMESTER : ODD

AUDITED DEPARTMENT : EEE

AUDITED BY : Mr. VIPIN K M & Mr. MIDHUN R M

DATE : 02/02/2022

Sl. NO	Key Aspects	Status of Documents	Auditor Remarks	Completion of pending documents
1	Minutes and action taken reports of course/class committees of UG/PG a. Verify minutes and action taken report	AVAILABLE	Three meetings has conducted for S7 Btech and verified the minutes and action taken report. All faculties who handling the classes and 3 students from each class were attended for first and second meeting. The third meeting was comprised of faculty members without students. S7 B TECH - (ON 11/12/21) – Meeting II S7 B TECH - (ON 14/01/22) – Meeting III	COMPLETED U



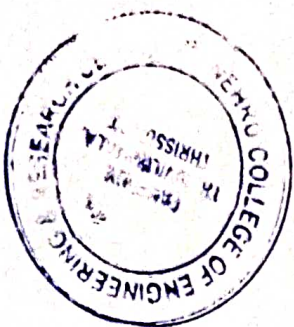


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



2	Minutes and action taken reports of advisory meetings a. Verify minutes and action taken report	AVAILABLE	The meeting has conducted on the following dates and verified the minutes and action taken report. S3 B TECH - (ON 16/01/22) – Meeting II S5 B TECH – (ON 16/01/22) – Meeting II
			COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pulupady, Thrissur Kerala
Pin - 680 557, Kerala



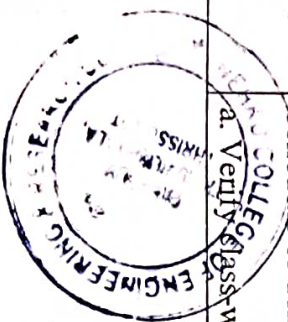
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



3	Course File for all the courses a. Course file for all courses (theory, practical, seminar, project, etc.) b. Examine course file for all necessary details such as (i) Time slot of classes (ii) Syllabus (iii) Course plan (iv) Details of assignments, tutorials (v) Attendance of students (vi) Marks awarded for assignments, internal exams etc. (vii) Topics covered (viii) Extra classes engaged Maintenance of course folder a. The course folder shall contain (i) Course file (ii) Sample Assignments (iii) Sample Answer books of internal exams with QP (iv) QP of end exams (v) Statements of Internal Evaluation marks (vi) Module notes	AVAILABLE	1. Time slot verified 2. Syllabus pasted 3. Course plan verified 4. Assignments completed, 3 questions from first three modules, each carries 10 marks, total 30 marks 5. Series test marks verified 6. All modules completed for S7. 4 modules completed for S3 and S5 7. No extra classes needed 8. 3 sample assignments and series booklets are available 9. Series test 1&2 QP and scheme are available Notes available	COMPLETED
4	Schedule of Time Table a. Verify class-wise and individual	AVAILABLE	Verified time table. Contact class timing is from 9.00 AM to	COMPLETED 





NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	faculty-wise time table		4.00 PM Online time table Monday to Thursday – 8.30 am to 1.30 pm, Friday – 8.00 am to 12.30 pm, 5 hours per day with 50 minutes duration Revision class timetable also verified.	
5	Conduct of Tutorial Classes a. Verify the tutorial logbook b. Size of tutorial classes c. Number of students assigned to a faculty d. mark tutorial hour in the timetable. Sample tutorial book	AVAILABLE	Tutorial logbook and sample notebooks are verified Tutorial hours are marked in the timetable.	COMPLETED
6	Internal test question paper and sample answer scripts a. Assessment can be done based on the following 1. Adequacy of valuation 2. Question papers & scheme of	AVAILABLE	All the faculties valued and submitted the Answer papers on or before due date. 1. Three sets of QP and scheme are available for series test 1 & 2	COMPLETED



PRINCIPAL

Nebru College of
Engineering and Research Centre
Dindigul, Tamil Nadu - 626 002



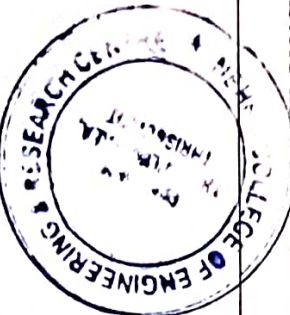
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



	evaluation 3 sample answer sheets minimum		Three sample answer sheets available	
7	Syllabus coverage of practical course		1. S7 Labs are completed 2. S1 Lab – 50% Completed 3. S3, S5 lab – 80% completed	COMPLETED
8	Laboratory manual, records and course file for all practical courses a. Verify course diary, course file, log book of equipment, work record of students (3 numbers). b. Assessment can be done based on (i) number of students in a batch (ii) time given for doing the experiment (iii) number of experiments conducted as per syllabus (iv) Check syllabus of practical class pasted in front of the course diary (v) Check evaluation on the same date (vi) Mark distribution details	AVAILABLE	1. Verified course file 2. Syllabus pasted in Course File 3. Mark distribution of experiments as verified 4. S7 Labs are completed 5. S1 Lab – 50% Completed 6. S3, S5 lab – 80% completed 7. S7 internal marks published	COMPLETED
9	Equipment log registers, stock registers used in Laboratories	REGISTER AVAILABLE	Stock and issue register are available and Verified	COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Thiruvananthapuram, Thiruvananthapuram
Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



10	Conduct of series test	CONDUCTED	1. Series test I & II result analysis is available for S7 and verified. 2. Series test I result analysis is available for S1, S3, S5 and verified Conducted as per academic schedule	COMPLETED
11	Project (Mini project/Design project/Final semester project) progress review reports. Quality & Progress of projects Can be accessed from a. Course file, project review records, outcome of projects such as papers published, patents, awards etc. b. project team maximum of 5 c. includes literature survey, formulation of objectives, formulation of hypothesis/design/methodology, formulation of work plan, preparation of report	AVAILABLE and VERIFIED	Seminar of S7 EEE completed Design projects: Not Applicable Project 3 reviews completed for EEE S7 students Sample reports are available	COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Thiruvananthapuram, Thiruvananthapuram
Pin - 690 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	d. sample fair report			
12	Mentoring details	REGISTER AVAILABLE	Verified the details. 8 Students assigned for one faculty	COMPLETED
13	Result Analysis of previous semester Performance of students in the previous semester a. Update with revaluation results b. subject wise and overall pass percentage c. check green card updating	AVAILABLE AND VERIFIED	1. Updated last university result and verified with revaluation result. 2. Subject wise pass percentage is available 3. Green Cards verified and all batches green cards were updated.	COMPLETED
14	Details showing the conduct of remedial classes. a. Check maintaining register for recording details of remedial classes	REMEDIAL CLASS REGISTER AVAILABLE	Recorded class details in the register	COMPLETED

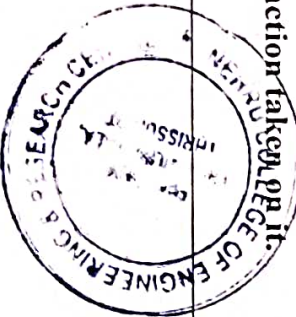




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	b. Attendance of students			
15	Details showing the conduct of Minor classes Check maintaining course file for recording details of minor classes	AVAILABLE	S3 and S5 MINOR Course files and Course folders are available and verified	COMPLETED
16	Details showing the conduct of Honour classes Check maintaining course file for recording details of honour classes	NA		
17	Assessment of Outcomes a. Verify COs and knowledge levels in internal and assignment question papers. b. Verify CO/PO attainment calculation for all the courses	AVAILABLE	CO/PO knowledge levels and attainment calculations and files are available and verified	COMPLETED
18	Details of faculty evaluation and action taken, if any.	AVAILABLE	First & Second set feedback in the current semester was collected and the grades calculated. Detailed Report is available	COMPLETED

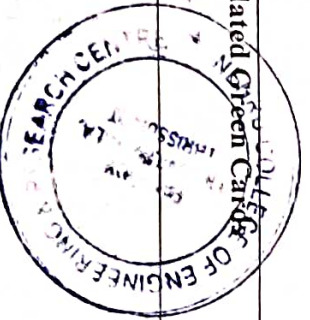




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



	Students Feedback a. two sets of feedback for each semester b. % of students participated c. corrective actions taken for improving teaching effectiveness			
19	Department library register showing volume and title of books, journals etc.	REGISTER AVAILABLE	Stock register and issue register available.	COMPLETED
20	Platform used for LMS/Course materials and lectures uploaded	VERIFIED	Course Materials uploaded in Google class room and college website	COMPLETED
21	NPTEL/SWAYAM course materials recommended	AVAILABLE	Available and verified.	COMPLETED
22	Register showing activity points	REGISTERS AVAILABLE	S5, S7 Registers were updated. For S3 there is no entry till date	COMPLETED
23	Updated Green Cards	UPDATED	Green Cards verified and all batches green	COMPLETED



4

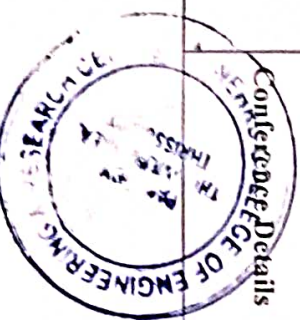


NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



			cards were updated.	
24	Categorisation of students with list	AVAILABLE	Students' categorisation list available and verified.	COMPLETED
25	Details of value added courses	AVAILABLE	Value added courses and details are available. 3 value added courses are available in odd semester of academic year 2021-22	COMPLETED
26	Feedback from Students, Alumni, Employer & Faculty	Partially Available	Feedback from Students and Alumni are available and verified	Need to collect feedback from Employer and Faculty
27	Faculty and staff profile	AVAILABLE	Faculty and staff profile documents are available for all faculties and staff.	COMPLETED
28	Paper publication	AVAILABLE AND VERIFIED	List and details of paper publications file are available. 5 papers published in odd semester of academic year 2021-22	COMPLETED
29	Conference Details	AVAILABLE AND VERIFIED	List and details of conference file are available. Details of 5 conferences are available in odd semester of academic year	COMPLETED



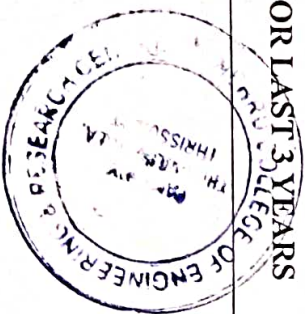
4



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



			2021-22	
30	Refresher Course	AVAILABLE	List and details of refresher courses are available. No refresher courses are attended or organized in odd semester of academic year 2021-22	COMPLETED
31	Training Program	AVAILABLE	List and details of training program are available. No training programs were attended or organized in odd semester of academic year 2021-22	COMPLETED
32	FDP Details	AVAILABLE AND VERIFIED	List and details of FDP file are available. Details of 3 FDPs are available in odd semester of academic year 2021-22	COMPLETED
33	Funded FDPs	NOT AVAILABLE	Funded FDPs are not available	COMPLETED
DEPARTMENT FILES IN LINE WITH NBA/NAAC ACCREDITATION				
A1 - Files (Academic Files)				
FOR LAST 3 YEARS				



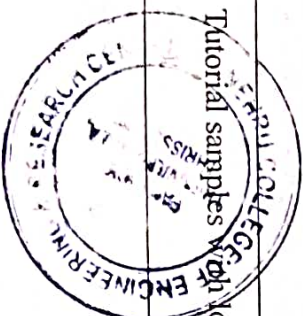
PRINCIPAL
Neiru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Thrissur DI
Pin - 680 557, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



34	Time table (with tutorials) - Staff arranged in hierarchical order	AVAILABLE	Time table for all classes are available and verified Contact class timing is from 9.00 AM to 4.00 PM Online time table Monday to Thursday – 8.30 am to 1.30 pm, Friday – 8.00 am to 12.30 pm, 5 hours per day with 50 minutes duration Revision class timetable also verified.	COMPLETED
35	Internal exam QP (DQAC Approved)	AVAILABLE	Approved sets of Internal exam QP are available and Verified	COMPLETED
36	Innovative Teaching approaches	AVAILABLE	Innovative Teaching approaches such as ICT enabled teaching, group assignment, interactive learning, video lectures, group discussion, tutorial, peer learning and project based learning are verified	COMPLETED
37	Tutorial samples with log book	AVAILABLE	Tutorial logbook and sample notebooks are verified	COMPLETED





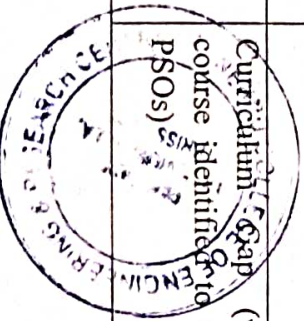
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



			Tutorial hours are marked in the timetable.	
38	SFR (Computation as per NBA)	AVAILABLE	Number of faculties = 10 Number of students = 216 SFR = 21.6	COMPLETED
	A2 - File (Academic Files)			
39	Course files (Last 3 years)	AVAILABLE	Course files with sample assignment books and sample test books are available and verified	COMPLETED
	A3 - Files (Academic Files)			
40	CO-PO, CO-PSO mapping	AVAILABLE	CO-PO, CO-PSO mapping of all courses are available and verified.	COMPLETED
41	PO, PSO attainment	AVAILABLE	Calculated documents of PO, PSO attainment of all courses are available and verified.	COMPLETED
42	Curriculum Gap (with Gaps and course identified to address the POs, PSOs)	AVAILABLE	Feedback files indicating reason for curriculum gap are available and verified	COMPLETED

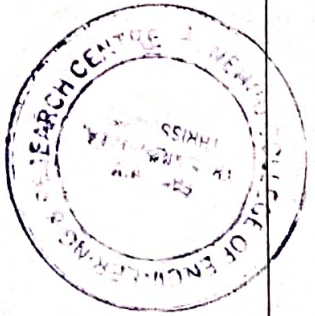




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



43	Project (a. List of projects with guides and students b. Panels, rubrics and marks of evaluation c. PO, PSO attainment)	AVAILABLE and VERIFIED	Design projects: Not Applicable Project 3 reviews completed for CSE S7 students Sample reports are available	COMPLETED
44	Subject Group (List of groups and Faculty, allotment by HoD, Minutes of each group, Programs/Activities organized under each group)	AVAILABLE and VERIFIED	List of subject group, faculties and activities are available	COMPLETED
B - Files (Staff Files)				
45	Add-on Courses (<i>Update these files for period July- June</i>) Research funding (a. Internal, b. External)	AVAILABLE	List of Add-on courses and details are available. 3 add-on courses are there in odd semester of academic year 2021-22	COMPLETED
46	Consultancy	NOT AVAILABLE	Not available	COMPLETED



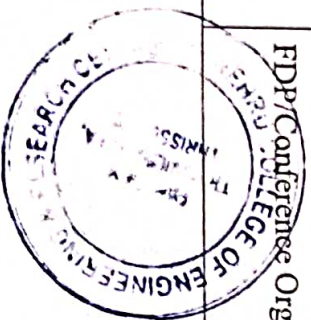
PRINCIPAL
Neeru College of
Engineering and Research Centre
Mainpally, Thuvilwamala, Thrissur Dt
Pin - 680 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



47	Collaborative works/research and outcomes	NOT AVAILABLE	Not available	COMPLETED
48	Journal Publications: ISI, SCOPUS, Other Journals	AVAILABLE AND VERIFIED	List and details of journal publications file are available. 5 papers published in odd semester of academic year 2021-22	COMPLETED
49	Publications: Conference, Books, Book chapters, Articles, etc.	AVAILABLE AND VERIFIED	List and details of conference file are available. Details of 5 conferences are available in odd semester of academic year 2021-22	COMPLETED
50	IPR (and related activities)	AVAILABLE AND VERIFIED	List and details of IPR file are available. 5 patents were registered in academic year 2021-22	COMPLETED
51	MoU	AVAILABLE AND VERIFIED	List and details of MoU file are available. 1 MoU signed in odd semester of academic year 2021-22	COMPLETED
52	FDP Attended: (a. Outside own college b. Inside own college)	AVAILABLE AND VERIFIED	List and details of FDP file are available. 5 faculties attended FDP in odd semester of academic year 2021-22	COMPLETED
53	FDP/Conference Organized	AVAILABLE AND VERIFIED	List and details of FDP organization file are available.	COMPLETED

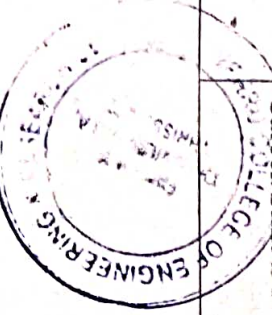




NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)



54	Awards / Honors	NOT AVAILABLE	Not available	COMPLETED
55	External Interaction	NOT AVAILABLE	Not available	COMPLETED
C - Files (Student Files)				
56	Roll List (for last 3 years)	AVAILABLE AND VERIFIED	Roll List for last 3 years are available	COMPLETED
57	KTU Results and Analysis (Semester-wise)	AVAILABLE AND VERIFIED	KTU Results and Analysis are available	COMPLETED
58	Success Data of Passed Out Batch	AVAILABLE AND VERIFIED	Available	COMPLETED
59	Placement (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Placement details are Available	COMPLETED
60	Higher Studies (Proof- for previous Acad Year)	AVAILABLE AND VERIFIED	Higher Studies details are Available	COMPLETED
61	Career/Skill Development Programs	AVAILABLE AND VERIFIED	Career/Skill Development Programs details are Available	COMPLETED





NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)



62	Achievements	AVAILABLE AND VERIFIED	Department Achievements details are Available	COMPLETED
63	Entrepreneurship / Start ups	AVAILABLE AND VERIFIED	Entrepreneurship / Start ups details are Available	COMPLETED
64	Professional Society Activity	AVAILABLE AND VERIFIED	Professional Society Activity details are Available	COMPLETED
D - Files (Miscellaneous Files)				
65	Staff Extension Activities	AVAILABLE AND VERIFIED	Staff Extension Activities details are Available	COMPLETED
66	Staff Duties/Responsibilities	AVAILABLE AND VERIFIED	Staff Duties/Responsibilities details are Available	COMPLETED
67	Guest Acquaintance (Semester-wise)	AVAILABLE AND VERIFIED	Guest Acquaintance details are Available	COMPLETED
68	Department Budget	AVAILABLE AND VERIFIED	Department Budget files are Available	COMPLETED



PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Thrissur Dt
Pin - 680 597, Kerala



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

Auditor

Vipin N
Mishra

Auditee

David E

HOD

Since 1968



PRINCIPAL
Nehru College of
Engineering and Research Centre
Trissur, Thrissur, Kerala
PIN : 686 507, Kerala

4



MINUTES OF THE MANAGEMENT REVIEW MEETING HELD ON 04TH
NOVEMBER 2021 AT 11:30AM

A Management Review meeting was called on 04TH NOVEMBER 2021, Thursday at 11:30 AM at Board Room in Aryabhata Block of NCERC to review the performance of quality systems in NCERC and to discuss on suggestions made by the external auditor on improvement of quality systems after ISO surveillance audit.

Chairman & Managing Trustee , Adv.Dr.P.Krishnadas chaired the meeting and the following members were present:

Prof.(Dr.) Ambika Devi Amma T, Principal NCERC

Dr. Sheela Srivastava, Director MBA

Dr. Sudheer S Marar, HoD, MCA Dept.

Smt. Bindu Krishnakumar, Campus Manager

Shri. Ambikadas, Academic Superintendent, NCERC

Mr. Anoop Kumar M.V, AMR, NCERC

An Internal Quality Audit was conducted from **18/10/2021** to **22/10/2021** in order to review system progress as per ISO 9001:2015 standards. A re-audit was conducted on **25/10/2021** . In the IQA conducted the following observations were made by the internal auditors:

- 1) Course files and course folder preparation were found to be up to date.
- 2) Result analysis is done properly by each department.
- 3) Stakeholder feedback is being maintained by the college.
- 4) File maintenance is being upgraded.

Chairman expressed satisfaction in the ISO quality process of NCERC and requested the HoD's and AMR to monitor the quality systems closely and take proper corrective and preventive actions without delay. Deficiencies, if any, in the system shall be reported immediately so that the auditing process will be smooth. Auditor teams shall be selected from each department and they should only audit other departments. The department heads should ensure that all faculty members of their department are aware of ISO quality policy. The next MRM shall be conducted after the first IQA (Internal Quality Audit).

All members present agreed to comply. The meeting came to an end at 1 PM.




PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thrissur, Kerala-680 588



&



Accredited



MINUTES OF THE MANAGEMENT REVIEW MEETING HELD ON 04TH FEBRUARY 2021
AT 10:00 AM

A Management Review meeting was called on 04th February, 2021, Monday at 10:00 AM at Board Room in Aryabhata Block of NCERC to review the performance of quality systems in NCERC and to discuss on suggestions made by the external auditor on improvement of quality systems after ISO surveillance audit. Chairman & Managing Trustee, Adv. Dr. P. Krishnadas chaired the meeting and the following members were present:

Prof. (Dr.) Ambika Devi Amma T, Principal NCERC
Dr. Sheela Srivastava, Director MBA
Dr. Sudheer S Marar, HoD, MCA Dept.
Smt. Bindu Krishnakumar, Campus Manager
Shri. Ambikadas, Academic Superintendent, NCERC
Mr. Anoop Kumar M.V, AMR, NCERC

It was informed by AMR during the meeting that the second ISO surveillance audit was completed on **13/01/2021**. During the **surveillance audit** the external auditor made the following observations:

- 1) We need to be aware of ISO 9001:2015 clauses and an awareness need to be given to faculty members.
- 2) We need to prepare a **new audit plan** based on ISO 9001:2015.
- 3) We need to conduct **2 Internal Quality Audits (IQA)** for April-2020 and October-2020.
- 4) A **MRM (Management Review Meeting)** file need to be prepared within 2 weeks of conduct of IQA. So two MRM's need to be prepared.
- 5) **Department heads need to be aware of Quality Policy, Quality Objectives** and take responsibility of files mentioned in dept.
- 6) A **complaint register** need to be maintained in common for the college.
- 7) HoD's of concerned departments should keep the master list of files and should ensure that the files are properly maintained and updated. **MR (Management Representative) will not be responsible for file maintenance in individual departments.**

An Internal Quality Audit was conducted from **25/01/2021** to **29/01/2021** in order to review system progress as per ISO 9001:2015 standards. A re-audit was held on **01/02/2021**. In the IQA conducted the following observations were made by the internal auditors:

- 1) Course folder preparation was found to be up to date.
- 2) Result analysis is done properly by each department and the analysis is kept in file.
- 3) Complaint register is being maintained by the college.
- 4) File maintenance to be upgraded in few departments.

Chairman expressed satisfaction in the ISO quality process of NCERC and requested the HoD's and AMR to monitor the quality systems closely and take proper corrective and preventive actions without delay. Deficiencies, if any, in the system shall be reported immediately so that auditing process will be smooth. Auditor teams shall be selected from each department and they should only audit other departments.

All members present agreed to comply. The meeting came to an end at 11:30 AM.




PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thrissur, Kerala-680 588



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE



(NAAC ACCREDITED)

NILA GARDENS, PAMPADY, THIRUVILWAMALA, THRISSUR DIST - 680 588

Composition of IQAC for the Academic Year 2021-2022

Sl.No.	Name	Designation	IQAC Member
1	Adv.Dr.P.Krishnadas	Managing Trustee	Management Representative
2	Prof.(Dr.)Ambikadevi Amma T	Principal, NCERC	Chair Person
3	Dr.Sobha Manakkal	HoD,EEE Department	IQAC Director
3	Mr.David E	Asst. Professor,EEE Department	IQAC Coordinator
4	Mr.M.Srinivas	Administrative Manager	Senior Administrative Officer
5	Mr.R.Ambikadas	Academic Superintendent, NCERC	Senior Administrative Officer
6	Mr.Vimal M N	Asst.Professor, AUE Department	Faculty Nominee
7	Mr.Vipin K M	Asst.Professor,CSE Department	Faculty Nominee
8	Ms.Sajitha A S	Asst.Professor,ECE Department	Faculty Nominee
9	Mr.Anoopkumar M V	Asst.Professor,EEE Department	Faculty Nominee
10	Mr.Rahul R	Asst.Professor,ME Department	Faculty Nominee
11	Mr. Midhun Raj P K	Asst.Professor,MT Department	Faculty Nominee
12	Mr.Alex Kuruvilla	Asst.Professor,MBA Department	Faculty Nominee
13	Ms.Deepa A	Asst.Professor, MCA Department	Faculty Nominee
14	Mr.Ragesh P R	2002-06 Batch Mechanical Engg Student	Alumni Nominee
15	Mr.Manojkumar K R	Ward Member, Ward number-5,	Local Society Nominee

		Thiruvilwamala.	
16	Mr. Hari S	Head, ETA Infosys Mysore	Industry Nominee
17	Mr. P Sivanandan	CEO, Society of Energy Engineers and Managers(SEEM) Kerala Chapter.	Industry Nominee
18	Ms.Greena Sunny	S5- ECE DEPT	Stake holder Nominee (Student)
19	Mr.Jayakumar C	F/o Mr. Jineesh J (S5 - EEE)	Stake holder Nominee (Parent)


 IQAC Coordinator


 Principal



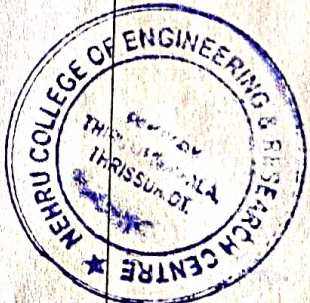
NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

INTERNAL QUALITY ASSURANCE CELL - NCERC



MINUTES OF THE INTERNAL QUALITY ASSURANCE CELL 31 ST (IQAC) MEETING AC.YR.2021-22		
Agenda-- 1. Discussion on action points arising out of the previous meeting 2. AQAR submission & NIRF submission 3. Internal Audit -EVEN semester 2021-22 4. International conference- preparations 5. Research & Development activities - 6. NBA inspection preparations 7. Seminar - NAAC funded 8. Any other matter with the permission of the chair.		
Board Room, Aryabhata	Date: 26 th April 2022	Time - 2:00PM
<u>IQAC Members Present</u>		
1. Prof.(Dr.)Ambikadevi Amma T-Chairperson IQAC		
2. Dr.Sobha Manakkal-Director IQAC		
3. Mr.David E-Cordinator IQAC		
4. Ms.Deepa A-Member Inernal		
5. Dr.Suriakala R- Member Inernal		
6. Mr.Vipin K M-Member Inernal		
7. Mr.Rahul R-Member Inernal		
8. Mr.Anoopkumar M V-Member Inernal		
9. Ms.Sajitha A S-Member Inernal		
10. Mr. Midhun Raj P K-Member Inernal		
11. Mr.R.Ambikadas-Member Inernal		
12. Mr.Ragesh P R-Member Alumini		
13. Ms.Greena Sunny-Member student		



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

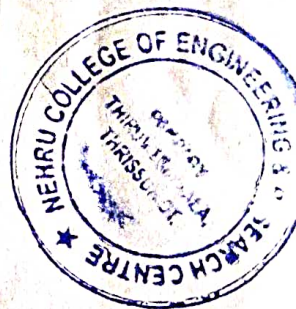
INTERNAL QUALITY ASSURANCE CELL - NCERC



The meeting began at 2:00pm. Principal welcomed all the members of IQAC and the new members were introduced before the committee. She requested Dr.Sobha Manakkal, Director IQAC to go ahead with the proceedings

Director IQAC started the presentation by listing the action taken report (ATR) of previous meeting. The minutes and ATR of previous meeting was passed

Sl.no	Item	Action by	Target date
1.	Meeting decided to have a calendar for AQAR and NIRF preparation and submissions in the further years 2022-23 academic year		
	Submission of	Work plan	submission
	AQAR 2021-22	August 15 th - November 15 th -2022	December 2022
	NIRF 2023	November 15 th - December 15 th -2022	January 2023
2.	Decided to have the Even Semester Internal Academic audit of the ongoing semester by IQAC. Also decided to have a closing audit meet to discuss the final audit form	IQAC auditors	18 th May-20 th May 2022 Closing meet on 25 th May 2022
3.	IQAC reviewed the progress of preparation on the International Conference ICETSSI2022 being organized by NCERC and convened by CS department on 26 th & 27 th May 2022. IQAC decided to alert the organizing team to promote publicity to have more registrations from researchers	Conference organizing Team	Immediate





NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

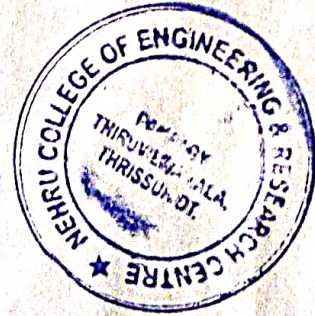
(Approved by AICTE, Affiliated to KTU, Kerala)

INTERNAL QUALITY ASSURANCE CELL - NCERC



4.	Decided to have the following to strengthen the Research activities of the campus Call for Ph.D. admission applications from KTU, NIT Calicut - Notify faculty Request for formation of Research Wing with representation from all departments - One day workshop for faculty for encouraging faculty to register for Ph.D - May 2022	Principal's Office , HoDs Dr.Sankar _Prof. in charge Research Cell.	Immediate May 2022
5.	IQAC reviewed the progress of preparation on the forthcoming NBA visit and found the progress of works satisfactory. Decided to provide needed support to the programs applied for the inspection	Dr.Sankar _Prof. in charge Research Cell	May 2022
6.	Decided to apply for National Seminar funded by NAAC under the auspices of IQAC. Theme was decided as National Education Policy 2020	IQAC IQAC	Immediate May 15 th 2022
MEETING CONCLUDED WITH THE THANKS GIVING FROM IQAC COORDINATOR			


IQAC DIRECTOR




PRINCIPAL NCERC



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

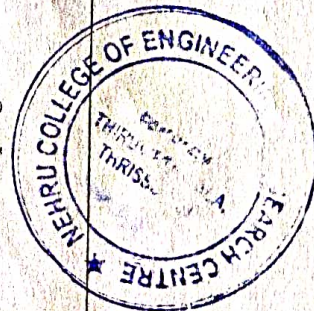
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

INTERNAL QUALITY ASSURANCE CELL - NCERC



ACTION TAKEN REPORT OF THE IQAC MEETING NO 30 HELD ON 28 TH JANUARY 2022 (APPROVED IN THE MEETING HELD ON 26 TH APRIL 2022)				
Sl.no	Item	Action by	Action Taken	Remarks
1.	Meeting decided to have change in the member list as below - Mr. Manuraj - Member internal to be removed from rolls since the representing program has been closed - Prof.Alex Kuruvilla -Member internal from MBA department to be replaced by Dr.Suriakala R based on request from Director MBA	IQAC to revise list	Composition of IQAC was revised by replacing faculty nominees of MBA and AUE department	Action completed
2.	Discussed the AQAR and NIRF submission status - AQAR 2019-20 submitted on December 2021 and is approved by NAAC - AQAR 2020-21 - submission in progress - submission expected well in time - NIRF - submission in progress - submission expected well in time	For information	AQAR 19-20 and NIRH 22 was submitted and AQAR 2020-21 is prepared and ready to be uploaded.	Action completed





NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

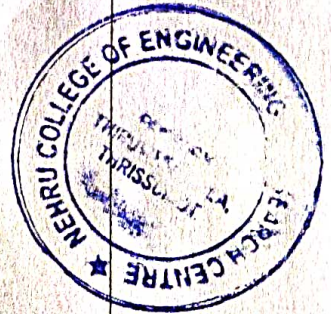
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

INTERNAL QUALITY ASSURANCE CELL - NCERC



3.	Decided to have the first internal Academic audit of the ongoing semester by IQAC with the revised checklist. Also decided to have a closing audit meet to discuss the final audit form	IQAC auditors	Successfully completed the internal academic audit for odd semester as per schedule and checklist. No report of any non compliance	Action completed
4.	Decided to have an activity calendar for updating the department events FDP/Workshop, paper publications etc. to IQAC on monthly basis	Department Heads upon direction from Principal	Format circulated and dept. are submitting monthly report to Principal office	Action completed
5.	Decided to have the following to strengthen the Research activities of the campus Commence a research wing at NCERC under a Professor. Dr.Sankar, faculty mechanical department, is suggested for the position	Dr. Sankar, ME upon direction from Principal	Dr.Sankar appointed as Prof. In charge	Action completed
	Commencement of Thursday colloquium to hold interdisciplinary presentations under the aegis of ISTE faculty chapter and IEEE student branch	ISTE /IEEE faculty in charge upon direction from Principal	Dr.Sobha(IEEE SB counsellor) and Prof. Radhika(ISTE faculty coordinator) assigned with. Thursday Colloquium scheduled to be commenced in May	Action completed





NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

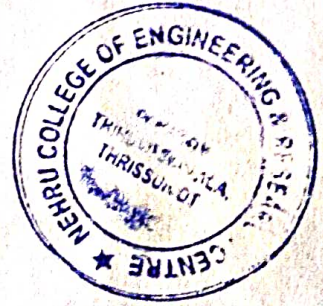
INTERNAL QUALITY ASSURANCE CELL - NCERC



	Decided to have all faculty members registered with LinkedIn, Google scholar/ Orcid/ Vidwan for updating their academic credentials. Decided to assign Prof.Sundaramoorthi P, EEE department for necessary follow up and technical support	Prof.Sundaramoorthi P, EEE upon direction from Principal	Prof.Sundaramoorthi P, EEE assigned Only few registered	Action pending
6.	Decided to have a webinar on Outcome Based Education for the benefit of faculty members. Resource person to be identified and session to be arranged	IQAC	Dr. Jaget Babu N R (Retired Prof CET). ,First session-1- 25 th February 2022. Second session -28 th February 2022,Third session - 7 th March 2022	Action completed
PREPARED BY DIRECTOR IQAC NCERC		26 th APRIL 2022		
APPROVED BY PRINCIPAL NCERC		26 th APRIL 2022		

Sgt

DIRECTOR IQAC NCERC



Shw

PRINCIPAL NCERC



**NEHRU COLLEGE OF ENGINEERING AND
RESEARCH CENTRE
(NAAC 'A' Accredited)
(Approved by AICTE, Affiliated to KTU, Kerala)
INTERNAL QUALITY ASSURANCE CELL (IQAC)**



To

All members of IQAC

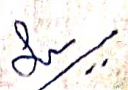
Dear Sir/Madam,

Sub: Call for 30th meeting of IQAC NCERC reg:

The next meeting (30th) of IQAC is scheduled on **28th January-2022 at 2p.m. at Board Room, Aryabhata Block in a hybrid mode.** As a member of the IQAC you are cordially invited to attend the meeting and participate in the deliberations. You can either be physically present or join online for the meeting. In case you are joining online, please send an email to IQAC, at the earliest

Agenda

1. Discussion on action points arising out of the previous meeting
2. AQAR submission & NIRF submission
3. Internal Audit –ODD semester 2021-22
4. Activity calendar
5. Research & Development activities –suggestions for improvement
6. NBA inspection preparations
7. Any other matter with the permission of the chair.


IQAC DIRECTOR


PRINCIPAL

PS: email IDs: iqac@ncerc.ac.in

Copy to all members

Mr.David E (IQAC coordinator)	Mr.Alex Kuruvilla (Faculty Nominee)
Mr.M.Srinivas (Senior Administrative Officer)	Ms.Deepa A (Faculty Nominee)
Mr. Mr.R.Ambikadas (Senior Administrative Officer)	Mr.Ragesh P R (Alumni Nominee)
Mr.Vimal M N (Faculty Nominee)	Mr.Manojkumar K R (Local Society Nominee)
Mr.Vipin K M (Faculty Nominee)	Mr. Hari S (Industry Nominee)
Ms.Sajitha A S (Faculty Nominee)	Mr. P Sivanandan (Industry Nominee)
Mr.Anoopkumar M V (Faculty Nominee)	Ms.Greena Sunny (Student Nominee)
Mr.Rahul R (Faculty Nominee)	Mr.Jayakumar C (Parent Nominee)
Mr. Midhun Raj P K (Faculty Nominee)	



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

INTERNAL QUALITY ASSURANCE CELL - NCERC



MINUTES OF THE INTERNAL QUALITY ASSURANCE CELL (IQAC) MEETING AC.YR.2021-22		
Agenda-		
1. Discussion on action points arising out of the previous meeting		
2. AQAR submission & NIRF submission		
3. Internal Audit - ODD semester 2021-22		
4. Activity calendar		
5. Research & Development activities - suggestions for improvement		
6. Any other matter with the permission of the chair.		
Board Room, Aryabhatta	Date: 28 th January 2022	Time - 2:00PM
<u>IQAC Members Present</u>		
1. Prof.(Dr.)Ambikadevi Amma T-Chairperson IQAC		
2. Dr.Sobha Manakkal-Director IQAC		
3. Mr.David E-Cordinator IQAC		
4. Ms.Deepa A-Member Internal		
5. Dr.Suriakala R- Member Internal		
6. Mr.Vipin K M-Member Internal		
7. Mr.Rahul R-Member Internal		
8. Mr.Anoopkumar M V-Member Internal		
9. Ms.Sajitha A S-Member Internal		
10. Mr. Midhun Raj P K-Member Internal		
11. Mr.Alex Kuruvilla-Member Internal		
12. Mr.R.Ambikadas-Member Internal		
13. Mr.Ragesh P R-Member Alumni		
14. Ms.Greena Sunny-Member student		



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

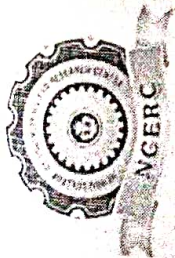
(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

INTERNAL QUALITY ASSURANCE CELL - NCERC



	The meeting began at 2:00pm. Principal welcomed all the members of IQAC and the new members were introduced before the committee. She requested Dr.Sobha Manakkal, Director IQAC to go ahead with the proceedings		
	Director IQAC started the presentation by listing the action taken report of previous meeting. The minutes of previous meeting was passed		
Sl.no	Item	Action by	Target date
1.	Meeting decided to have change in the member list as below - Mr. Manuraj -Member internal to be removed from rolls since the representing program has been closed - Prof.Alex Kuruvilla -Member internal from MBA department to be replaced by Dr.Suriakala R based on request from Director MBA	IQAC to revise list	28 th January 2022
2.	Discussed the AQAR and NIRF submission status - AQAR 2019-20 submitted on December 2021 and is approved by NAAC - AQAR 2020-21 - submission in progress - submission expected well in time - NIRF - submission in progress - submission expected well in	For information	- AQAR 2020-21 30-02-2022 - NIRF 08-02-2022
3.	Decided to have the first internal Academic audit of the ongoing semester by IQAC with the revised checklist. Also decided to have a closing audit meet to discuss the final audit form	IQAC auditors	01-02-2022 05-02-2022
4.	Decided to have an activity calendar for updating the department events FDP/Workshop, paper publications etc. to IQAC on monthly basis	Department Heads upon direction from Principal	March 2022



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC 'A' Accredited)

(Approved by AICTE, Affiliated to KTU, Kerala)

INTERNAL QUALITY ASSURANCE CELL - NCERC



5.	Decided to have the following to strengthen the Research activities of the campus - Commence a research wing at NCERC under a Professor. Dr.Sankar, faculty mechanical department, is suggested for the position - Commencement of Thursday colloquium to hold interdisciplinary presentations under the aegis of ISTE faculty chapter and IEEE student branch - Decided to have all faculty members registered with LinkedIn, Google scholar/ Orcid/ Vidwan for updating their academic credentials. Decided to assign Prof.Sundaramoorthi P, EEE department for necessary follow up and technical support	- Dr. Sankar, ME upon direction from Principal - ISTE /IEEE faculty in charge upon direction from Principal - Prof.Sundaramoorthi P, EEE upon direction from Principal	March 2022
6.	Decided to have a webinar on Outcome Based Education for the benefit of faculty members. Resource person to be identified and session to be arranged	IQAC	February 2022
Meeting concluded with the thanks giving from IQAC coordinator			

SA

IQAC DIRECTOR

Ugo

PRINCIPAL NCERC

NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(Accredited by NAAC)
PAMPADY, THIRUVILWAMALA, THRISSUR (DT) – 680588

NCERC/IQAC/03/21

09.09.2021

CIRCULAR

A meeting with IQAC members is scheduled for September 17, 2021 at 11:00 am in Room No:229, Aryabhata Block.

All members are requested to attend the meeting.



Principal

Copy to :
All HODs, for information and necessary action
Faculty members and Administrative Office members by name
Academic Office Superintendent, Campus Manager



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC Accredited)
(Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University,
Kerala)



Internal Quality Assurance Cell (IQAC)

Minutes of meeting held on 17th September 2021

Agenda:

1. Recompositing IQAC 2021-22.
2. Plan for NAAC peer team visit
3. Improving the research ambience of the Institution
4. Conduct of online classes during odd semester 2021-22
5. Conduct of offline classes for even semester 2020-21
6. Activities of different committees.

Members present: 12

The following points were discussed in the meeting:

1. Principal welcomed all the members of IQAC. She introduced the new members and the restructured composition of IQAC was presented.
2. The functions and role of IQAC in sustaining the quality of the academic programs of the college was highlighted.
3. Coordinator gave the brief idea to all members about each and every point in the self-study report submitted to NAAC. It was decided to conduct regular meetings with coordinators and working committees to review and update the NAAC works.
4. The tentative schedule for peer team visit were presented and the required preparation has been discussed. A team comprising four members was formulated to conduct the review meetings. Also a working team has been identified which comprises the head of all the available committees.
5. Since it is seen that the research initiatives taken by the institution is not adequate. Proposal can be put up for improving the same.

6. FISCIL support from management can be requested for the same.
7. Plan for action for the academic year was devised and the measures to be taken were presented. The requirement for online teaching were discussed and the schedule for odd semester online classes were published. And the coordinator suggested to use the common video conferencing platform tool webex for the online classes. And it was decided to use google class room for sharing study materials and assignments to the students.
8. New time table for the even semester offline contact classes were presented for the clarification. Members suggested to use the smart class room for the entire lectures in the offline period.
9. It is resolved to strengthen the activities of various academic and administrative committees for the academic improvement. Principal also asked all the committee coordinators to conduct regular meetings regarding the academic matters.

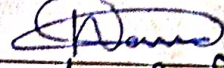
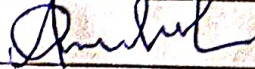


IQAC Coordinator



Principal

Members present for the IQAC meeting held on 17th September 2020

Sl.No.	Name	Signature
1	Prof.(Dr.)Ambikadevi Amma T	
2	Dr.Sobha Manakkal	
3	Mr.David E	
4	Mr.R.Ambikadas	
5	Mr.Vimal M N	
6	Mr.Vipin K M	
7	Ms.Sajitha A S	
8	Mr.Anoopkumar M V	
9	Mr.Rahul R	
10	Mr. Midhun Raj P K	
11	Mr.Alex Kuruvilla	
12	Ms.Deepa A	

**AICTE-ISTE INDUCTION/REFRESHER
PROGRAMME 2021-'22**

**EMERGING TRENDS IN EMBEDDED
SYSTEMS AND INTERNET OF THINGS
(IOT)**

Under the banner of Nehru Group of
Institutions-
Nehru College of Engineering and
Research Centre



Organised by
Dept of Electronics and Communication Engineering

From 01-02-2022 to 07-02-2022

**PROGRAMME IS SPONSORED
EXCLUSIVELY BY AICTE-ISTE**

Chief Patrons

Adv. Dr. P. Krishnadas
Chairman & Managing Trustee, NGI

Dr. P. Krishnakumar
CEO & Secretary, NGI

Patron

Prof. (Dr.) Ambikadevi Amma T
Principal, Nehru College of Engineering
and Research Centre, Pampady

COORDINATOR

P.RAJKUMAR
SENIOR ASSISTANT PROFESSOR
ECE DEPARTMENT

About the College

Nehru College of Engineering and Research Centre (NCERC), situated on the Bank of the river Nila, is a premier Engineering college that has pioneered engineering education, research and training in the private sector. Established in 2002 by the founder chairman Shri P.K. Das, NCERC is committed to impart world class quality education in engineering and research. Dedicated to the service in the realm of technical education in Kerala, it is an ISO 9001:2015 certified institution, approved by All India Council for Technical Education (AICTE), affiliated to A P J Abdul Kalam Technological University (KTU) and is accredited by National Assessment and Accreditation Council (NAAC) with 'A' Grade. Over these years NCERC has grown to be one of the Best Self Financing Colleges in Kerala.

About the ECE Department

The Department of ECE was established in 2002 with an intake of 60 students for undergraduate (B.Tech) programme and enhanced to an intake of 120 students from 2006. The department offers two Postgraduate (M.Tech) programmes, namely, "Applied Electronics & Communication System" from 2011 with an intake of 18 students and " VLSI Design" from 2012 with an intake of 18.

Highly qualified, experienced and dedicated staff members are the backbone of the Department. The Department always strives hard to satisfy the knowledge thirst of both students and faculties by organizing workshops / technical talks / conferences and so on. The faculty members are actively involved in research work and regularly present/ publish their work in various national and international conferences/journals.

The ECE Department is proud to host state-of-the-art Laboratories in the area of VLSI, Embedded Systems, Microprocessor and Microcontrollers, Circuits, Analog and Digital Communication and Microwave and Optical communication.

The ECE department formally inaugurated the ECHOS (The ECE Association) in 2009 and under this banner many extra-academic activities have been conducted such as paper presentation, quiz competition, workshops and seminars. Also the department has two magazines that have been developed on the basis of the creative skills of our imaginative students. There is an Embedded Club that meets on monthly basis to discuss innovative projects and publication based activities. Department is closely associated with INSTITUTE OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE) Palakkad Centre to organize technical events like guest lecture, seminars and conferences.

Objectives and Context

To get to understand and convey the emerging trend of 21st century in Embedded Systems and IoT in relation to various sectors of agriculture, industry and education.

ABOUT THE TOPIC

In today's exponential digital lifestyle, there is an acute need to incorporate computers and computing elements in standalone as well as distributed connections of machines with real-time engineering, medical and pharmaceutical interactions, especially during the recently witnessed global pandemic of the COVID -19 holocaust

Benefits to Faculty

It is of paramount importance for the Faculty to appreciate the milestones of Embedded Systems and IoT, as paradigm shifting revolution, especially during the recently concluded (hopefully) global pandemic. Expected Outcome

Able to use technology effectively for reducing the gap between man and machine and enabling multitasking to the fullest in today's exponential digital living with multiple conflicting agendas.

Program Schedule

Day-1: Inauguration followed by section of Embedded System and IOT

Day-2: Embedded Automotive systems and IoT Automation and Hands-on training

Day-3: Hands-on on Embedded systems and IoT topics with use of Cloud services

Day-4: Sensors for Embedded Systems and IoT with related topics in Embedded Systems and IoT

Day-5: IoT based Smart Applications and Industry usage of IoT

Day-6: National Education Policy 2020 followed by Stress Management, Online Test and Valedictory function

Who Can Participate

Faculty of Arts/Commerce/Science/Engineering/ Management and Technology Colleges/ Institutions.

Registration Fee

Registration is FREE for all participants

Dates to Remember

Program dates: 01-02-2022 to 07-02-2022
Last date for Registration: 27-01-2022

How to Register

Registrations are accepted through online mode.

Link for online registration is given below.

https://docs.google.com/forms/d/e/1FAIpQLSdDroJolKtNFqiyBfanQapocPWjGtUq8gatk8cSKVAGT-4Yg/viewform?usp=sf_link

Selection Process

Maximum Number of Participants: 100
Selection Basis: First Come First Serve
Intimation: Thorough Email

For any Query, Please Contact

Prof. Dr. S. Rajkumar
HOD ECE Department,

NCERC, Pampady

Mobile: 9025617775

Email: Hodeceab@ncerc.ac.in

Prof P. Rajkumar

Sr Asst Professor

ECE Department

NCERC Pampady

Mobile: 9746366196

Email: rajkumarp.ece@ncerc.ac.in

Website: <http://ncerc.ac.in/electronics-and-communication-engineering/>



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NAAC Accredited)

(Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University, Kerala)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



Schedule of the ONLINE AICTE-ISTE INDUCTION/REFRESHER PROGRAM 2021-'22

Program Title: EMERGING TRENDS IN EMBEDDED SYSTEMS AND INTERNET OF THINGS (IOT)

DAY AND DATE	SESSION-1 9:00-10:30 AM		SESSION-2 10:45-12:15 PM		SESSION-3 1:30-3:00 PM
DAY-1 TUESDAY 01-02-2022	INAUGURATION INAUGURAL CEREMONY Inaugural Address: Prof. Vijay D Vaidya Executive Secretary ISTE 93736 66492 Keynote Address: Dr.S.I. Manjur Basha Principal Bearys Institute, Mangalore Ph: 98944 13435	BREAK 10:30-10:45AM	Dr E. Chandra Blessie Department of Computing [AI & ML] Coimbatore Institute of Technology. Coimbatore. blessie@cit.edu.in 98422 66044 <u>Topic:</u> Embedded system approaches with connected IoT and Data Platform	LUNCH BREAK 12:15 - 1:15 PM	Mr. S.Daison Stallon (Ph.D) Assistant professor EEE Nehru Institute of Engineering and Technology Coimbatore. nietdaisonstallon@nehrucolleges.com 94897 45477 <u>Topic:</u> Role of IoT in Renewable energy systems
DAY-2 WEDNESDAY 02-02-2022	Dr.S.Sheeba Rani Associate Professor, Department of EEE, Sri Krishna College of Engineering and Technology, Coimbatore. sheeba.zion2020@gmail.com Ph: 9841835050 Topic: Embedded Automotive Systems		Dr.Maheswari.R, Associate Professor School of Computer Science. VIT Chennai maheswari.r@vit.ac.in 74015 96924 <u>Topic:</u> Embedded and IoT Automation through Zero Coding - Hands on		Mr. Suresh P IETE Palakkad <u>Topic:</u> Hands-on Embedded Systems Ph: 9633391398
DAY-3 THURSDAY 03-02-2022	Mr. Suresh P IETE Palakkad <u>Topic:</u> Hands-on Embedded Systems Ph: 9633391398		Dr Nalini Joseph Professor, School of Computing Bharath University. Chennai. drnalini.cse@bharathuniv.ac.in 94447 51976 <u>Topic:</u> Internet of Medical things		Mr. Dileep T N Hardware Developer Freelancer Ph: 96334 78102 dtdndileep@gmail.com <u>Topic:</u> Embedded Artificial Intelligence

DAY AND DATE	SESSION-1 9:00-10:30 AM		SESSION-2 10:45-12:15 PM		SESSION-3 1:30-3:00 PM
DAY-4 FRIDAY 04-02-2022	Mr Akhil Arun Menon (Ph.D) Assistant Professor Department of ECE m.akhil@jainuniversity.ac.in 86557 52503 Jain University, Bangalore <u>Topic:</u> Sensors: The what, why and how in Embedded Systems and IoT	BREAK 10:30- 10:45AM	Dr N.Anusha Professor, Department of ECE, S.A.Engineering College, Chennai 99411 65566 anusha@saec.ac.in <u>Topic:</u> Challenges and Requirements in Embedded Systems Design process	LUNCH BREAK 12:15 - 1:15 PM	Mr. Rajiv T R Asst. Professor, Dept of ECE, Christ College of Engineering, Thrissur. 85470 23663 <u>Topic:</u> Developing Cost Effective IoT Systems Hands-on
DAY-5 SATURDAY 05-02-2022	Dr. John Chembukkavu HOD / EEE IES COLLEGE OF ENGINEERING, KERALA 94478 08065 eeehod@iesce.info <u>Topic:</u> IoT Enabled Smart Charging Stations for Electric Vehicles		Dr M. Latha Associate Professor Department of ECE DMI College of Engineering, Chennai. 94441 15181 latha.ece@dmice.ac.in <u>Topic:</u> IOT transforming future of Agriculture industry.		Dr D.Vijayakumar Associate Professor, Dept. Of ECE, CMR College of Engineering & Technology, Hyderabad. 95005 24075 vkumarin@gmail.com <u>Topic:</u> Smart Mirror System
DAY-6 MONDAY 07-02-2022	Dr. Sobha Manakkal HOD / EEE NCERC, PAMPADY. KERALA 94464 58522 hodeee@ncerc.ac.in <u>Topic:</u> National Education Policy 2020		Dr. Malika Balakrishnan Consultant Psychologist NGI 98471 30090 mallikabalakrishnan192@gmail.com <u>Topic:</u> Mental Well-being and Stress Management		Online Test and VALEDICTORY FUNCTION Chief Guest: Col. B Venkat Director AICTE – New Delhi Special Address: Prof. Vijay D Vaidya Executive Secretary ISTE 93736 66492



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(NAAC Accredited with 'A' Grade, ISO 9001-2015 Certified)
(Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University,
Kerala)

(Pampady, Thiruvilvamala, Thrissur-680588)



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING ONLINE AICTE-ISTE INDUCTION/REFRESHER PROGRAM 2021-'22 EMERGING TRENDS IN EMBEDDED SYSTEMS AND INTERNET OF THINGS (IOT)

REPORT ON AICTE-ISTE INDUCTION/REFRESHER PROGRAMME ON

"EMERGING TRENDS IN EMBEDDED SYSTEMS AND IoT"
01-02-2022 to 07-02-2022

AICTE-ISTE had graciously sponsored the INDUCTION/REFRESHER PROGRAMME on "EMERGING TRENDS IN EMBEDDED SYSTEMS AND IOT", Coordinated by Prof. P. Rajkumar, Senior Assistant Professor, ECE Department, Nehru College of Engineering and Research Centre, after his application for the same was approved by AICTE-ISTE.

Our AICTE-ISTE INDUCTION/REFRESHER PROGRAMME on "EMERGING TRENDS IN EMBEDDED SYSTEMS AND IOT", commenced on Tue 01-02-2022 with Inauguration Function from 9:00 am to 10:30 am.

The day commenced with a one minute silent prayer in memory of our late founder chairman Shri. P.K. Das, followed by a prayer by Darsana (S3 ECE student).



Our most respected Principal welcomed the **Chairman and Managing Trustee** (in absentia) and honourable **CEO and Secretary Dr. P. Krishnakumar**, who presided over the function with a very goodspeech that motivated us to proceed in all alacrity with the programme.



The Chief Guest for the Inauguration Function was **Prof. Vijay D. Vaidya, Executive Secretary, Indian Society for Technical Education (ISTE)**. He was very happy to perform the inauguration of our humble venture and he emphasized on the need for common man to be aware of National Education Policy 2020. He made several important observations for need for structure higher education policy and to imbibe the essence of technical know-how to new faculty members through platforms such as this AICTE-ISTE Induction/Refresher programme.

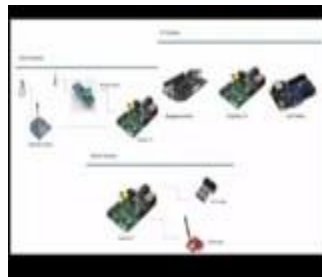
The other Guest of the day, Dr. S.I. Manjur Basha, Principal, Bearys Institute of Technology, Mangaluru, gave a very fascinating sermon on the growing need and influence of embedded systems and IoT and he praised us for having taken up the venture, during the Pandemic, to spread awareness about harnessing the massive power of IoT.

Our respected Principal, Prof Dr. Ambika Devi Amma T, welcomed the Guests with warm words of praise for the efforts of the Programme Coordinator and ECE department for the conduct of the Programme.

The ECE department HoD Prof. Dr. S.Rajkumar gave felicitations for the programme and went into dept to congratulate the Coordinator and team for the successful venture.

The Vote of Thanks was given by Programme Coordinator Prof. P.Rajkumar, who thanked the Guests, Principal and HoD for their words of wisdom and kind wishes for success of our Programme.

The first technical session on Day-1 was “Embedded Systems with connected IoT”, by **Dr. Chandra Blessie, Assistant Professor, Department of Computing [AI & ML] Coimbatore Institute of Technology**, Coimbatore from 10:45 am – 12:15 pm.



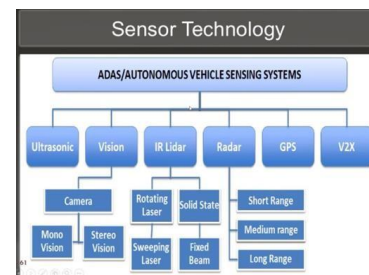
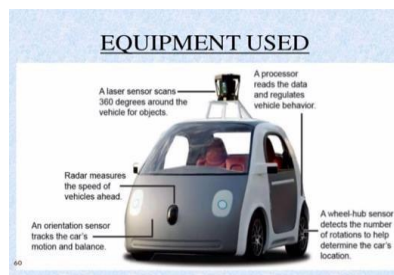
She presented on the basics of Embedded systems with practical applications and gave very vivid real time representation and then she delved at length into the rudiments of Internet of Things (IoT). The participants were enthusiastic and there were queries that were handled with ease by the respected resource person.

The second technical session on Day-1 was “Role of IoT in renewable energy systems”, by **Mr. Daison Stallon, Assistant professor EEE, Nehru Institute of Engineering and Technology Coimbatore**, from 1:30 pm – 3:15 pm.



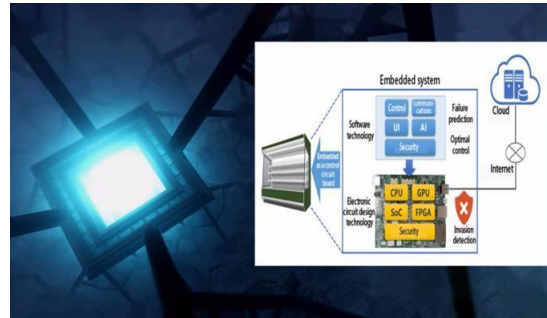
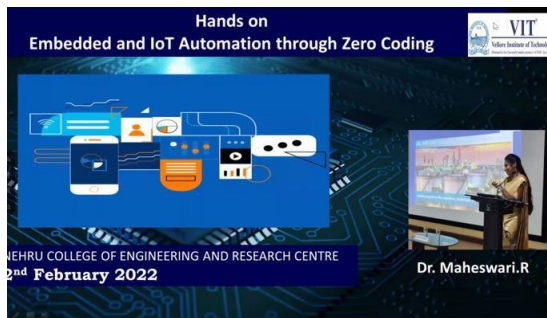
He gave a very solid and realistic presentation “Role of IoT in renewable energy systems”, with clear cut real- time cases that was very fascinating for all. The participants were very enthusiastic and there were many queries that were handled with ease by the respected resource person. The scope of renewable energy in our country and the coupling of IoT to achieve maximum efficiency and productivity were expertly presented.

The first technical session on Day-2: Wed 02-02-22, was “Embedded Automotive Systems” by **Dr. S. Sheeba Rani, Associate Professor, Department of EEE, Sri Krishna College of Engineering and Technology, Coimbatore**, from 9:00 am – 10:30 am.

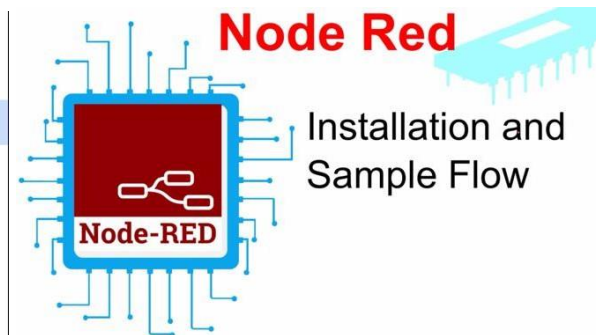
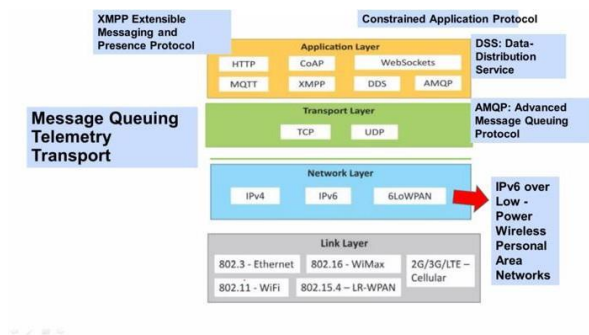


This was undoubtedly a very fascinating session with the resource person Dr. S. Sheeba Rani, making a very outstanding presentation of the role of Embedded systems in Automobile such as cars and other vehicles with real-time and very vivid implanted videos of state of the art, cutting edgetechnology.

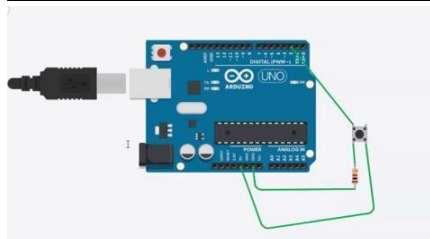
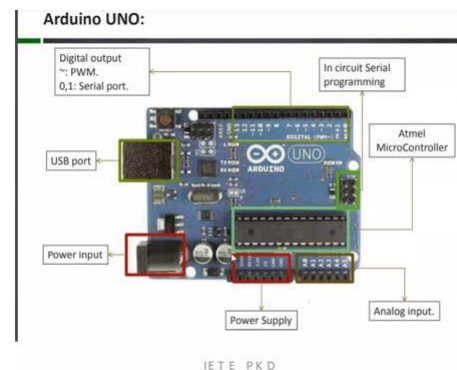
The second technical session on Day-2 was “Embedded and IoT Automation through Zero Coding” by **Dr. Maheshwari R, Associate Professor, School of Computer Science and Engineering, VIT Chennai**, from 10:45 am – 12:15 pm.



Madam gave a very realistic presentation on the role of IoT in automation and also provided programming practice real-time in all patience and participants got the first-hand experience on coding during the session.

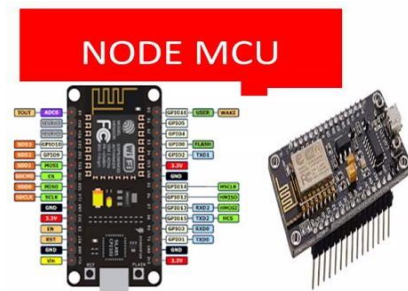
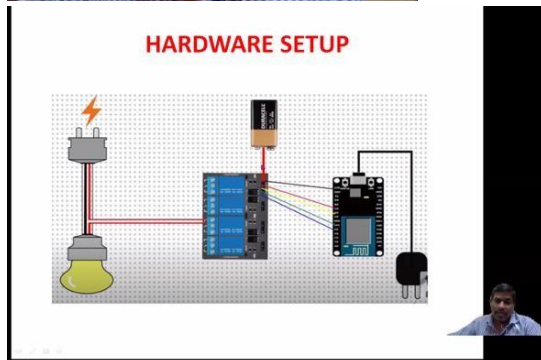


The third technical session on Day-2 was “Hands-on Embedded Systems”, by **Mr. Suresh P, IETE Palakkad**, from 1:30 pm – 3:15 pm.



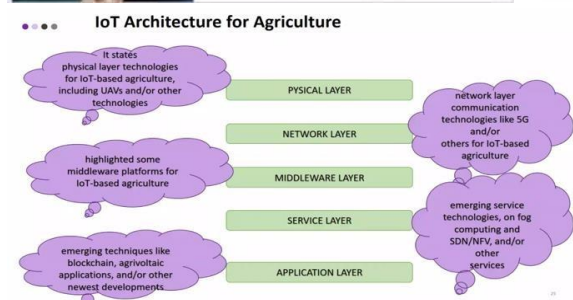
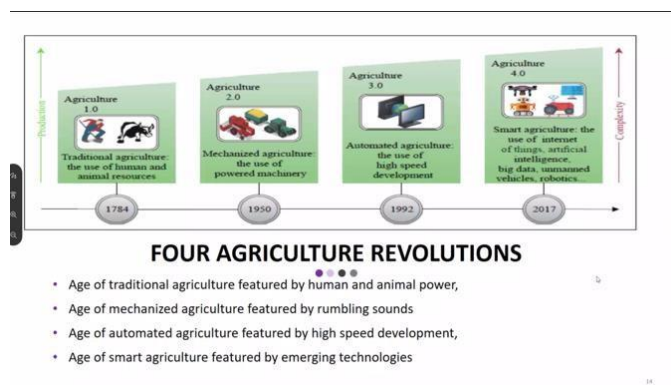
Mr. Suresh P from IETE Palakkad has conducted many sessions all over Kerala and in NCERC too, and on this day, he was at his very best with clear cut delving into Arduino and Raspberry Pi boards and his simulations were commendable. Especially, his interactive quiz session was revolutionary and participants were all very active.

The first technical session on Day-3 was “Hands-on Embedded Systems”, by **Mr. Suresh P, IETE Palakkad**, from 9:00 am – 10:30 am



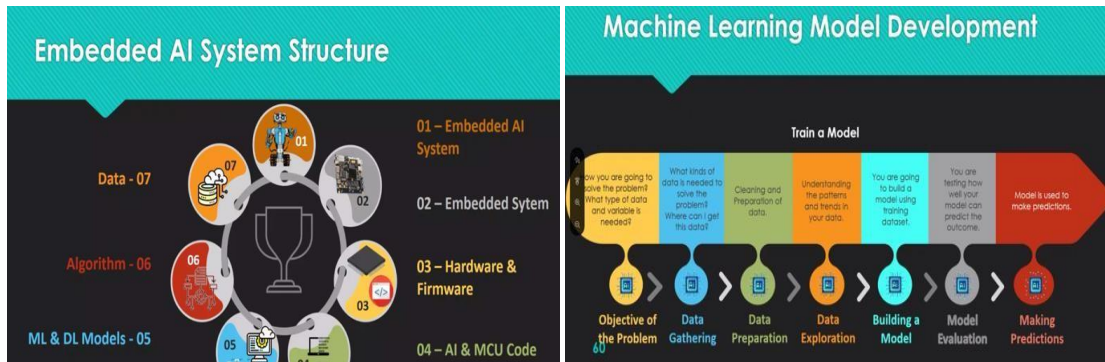
Mr. Suresh P from IETE Palakkad has conducted many sessions all over Kerala and in NCERC too, and on this day, he was at his very best with clear cut delving into embedded software and his simulations were a hallmark of an expert. Especially, his interactive quiz session was again revolutionary and participants were all very active.

The second technical session on Day-3 was “IoT transforming future of Agriculture industry” by **Dr. M. Latha, Associate Professor, Department of ECE, DMI College of Engineering, Chennai**, from 10:45 am – 12:15 pm



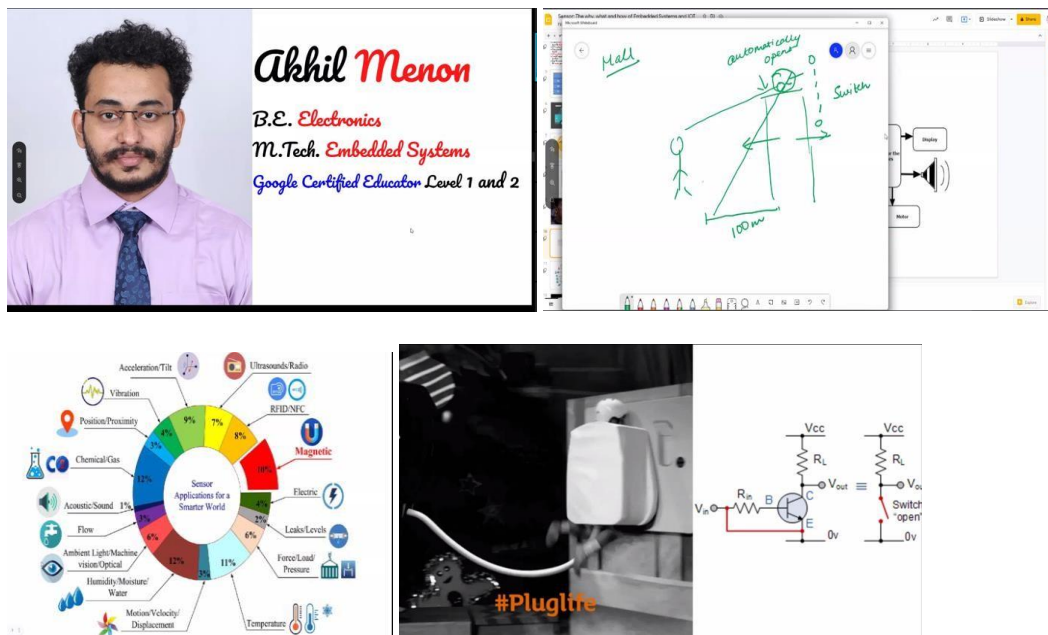
She presented on the revolutionary skill of transforming future of Agriculture using IoT and gave very vivid real time representation and then she delved at length into the rudiments of Internet of Things (IoT). The participants were enthusiastic and there were queries that were handled with ease by the respected resource person.

The third technical session on Day-3 was “Embedded Artificial Intelligence”, handled by **Mr. Dileep T N, Hardware Developer and Freelancer**, from 1:30 pm – 3:15 pm.



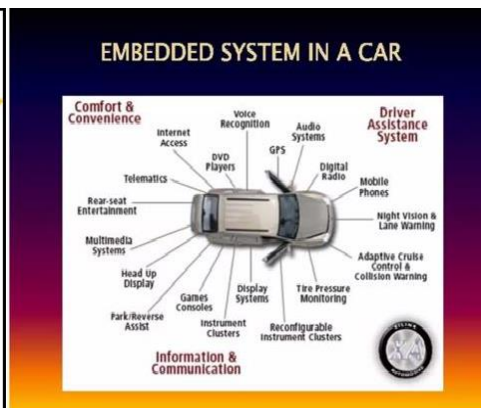
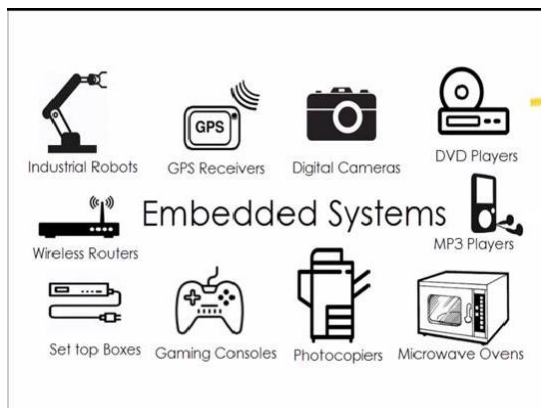
Dileep T N, an 2016 alumnus of ECE dept, NCERC, gave a scintillating session on Embedded AI , with very professional delving in varied facets of AI, Embedded Systems and then finally Embedded AL systems. He also provided a gregarious outlook into the software matters and coding issues.

The first technical session on Day-4 was “Sensors and its use in Embedded Systems”, by researcher **Mr. Akhil Arun Menon, Assistant Professor-Department of ECE,Jain University, Bangalore**, from 9:00 am – 10:30 am



Mr. Akhil Arun Menon set the stage afire with his oratory and presentation skills on Sensor for Embedded systems. There was a good mixture of multimedia content in this session, like video, whiteboard writing, audio clips and all were well integrated in a session that held the participants spell bound. Participants gave an outstanding feedback.

The second technical session on Day-4 was “Challenges and requirements in Embedded Systems design” by **Dr. N. Anusha, Professor, Department of ECE, S.A. Engineering College, Chennai**, from 10:45 am – 12:15 pm.



Therac-25 Medical Imager (Leveson and Turner)

- ✶ The Therac-25 was a medical linear accelerator, developed by the AECL (Atomic Energy of Canada Limited) and CGR, a French company
- ✶ These machines accelerated electrons that created energy beams that destroyed tumours.
- ✶ For shallow tissue penetration, the electrons are used; and to reach deeper tissue, the beam was converted into x-ray form
- ✶ The Therac-25 had two main types of operation: a low energy mode and a high energy mode.
- ✶ The first mode consisted of an electron beam of 200 rads that was aimed at the patient directly.
- ✶ The second, higher energy mode, used the full power of the machine at 25 million electron volts.
- ✶ When used on patients, a metal plate was inserted between the beam and the patient, which would transform the beam into an x-ray

Components of embedded systems

Embedded systems vary in complexity but, generally, consist of three main elements:

- ✶ **Hardware:** The hardware of embedded systems is based around microprocessors and microcontrollers
- ✶ **Software:** Software for embedded systems can vary in complexity
- ✶ **RTOS:** Real-time operating system.

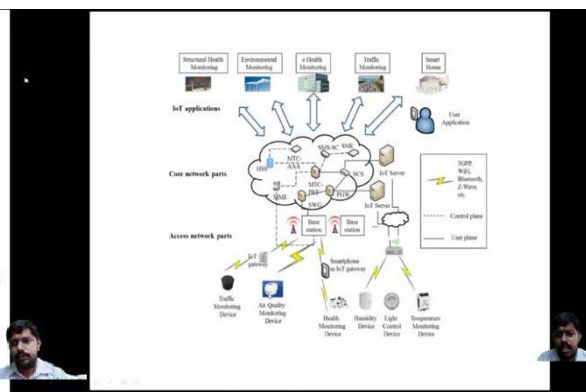
She presented on the basics of Embedded systems with practical applications and gave very vivid real time representation and then she delved at length into the rudiments of Internet of Things (IoT). The participants were enthusiastic and there were queries that were handled with ease by the respected resource person.

The third technical session on Day-4 was “Developing cost effective IoT Systems Hands-on”, by **Mr. Rajiv T R, Asst. Professor, Dept of ECE, Christ College of Engineering, Thrissur**, from 1:30 pm – 3:15 pm.

Developing Cost Effective IOT Systems with Hands On Using Wokwi Simulator

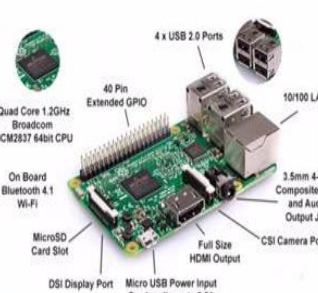
Presented by:

Mr Rajiv T R, Assistant Professor, Department of ECE
Christ College of Engineering Thrissur, Kerala



Raspberry Pi 3 B/B+

- Specification**
 - Quad-Core Arm A53 @ 1.25GHz(1.4GHz in B+) Broadcom SoC
 - ARMv8
 - 400MHz VideoCore IV
 - 1GB SD-RAM
 - Bluetooth 4.1 (4.2 in B+)
 - Wifi + Ethernet connectivity (PoE in B+)
 - Upto 128GB SD storage support



Rs. 2800/- *

* Price may vary from site to site.

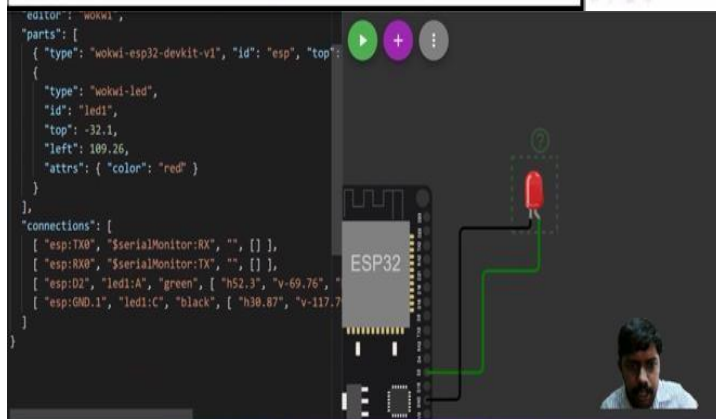
Asus Tinker Board

- Specification**
 - Quad-core A17 arm cortex clocked @ 1.8GHz.
 - 2GB LPDDR3 RAM.
 - Built-in Wifi and Gigabit LAN.
 - Bluetooth 4.0
 - Supports 4K via HDMI.
 - MicroSD Card upto 128GB.



Rs. 4999/- *

* Price may vary from site to site.



Mr. Rajiv T R gave a highly professional talk and his presentation was very well done on developing cost effective IoT Systems with a lot of hands-on related work. The hands-on work was highly invigorating and the resource person very patiently performed the practice and awaited the participants to do, too.

The first technical session on Day-5 was “IoT Enabled Smart Charging Stations for Electric Vehicles”, by eminent researcher **Prof. Dr. John Chembukkavu**, HOD / EEE, IES COLLEGE OF ENGINEERING, KERALA, from 9:00 am – 10:30 am

IoT ENABLED SMART CHARGING STATIONS FOR ELECTRIC VEHICLES

BY
Dr. JOHN CHEMBUKKAVU
HEAD OF DEPARTMENT
ELECTRICAL AND ELECTRONICS ENGG
IES COLLEGE OF ENGINEERING
DATE : FEBRUARY 5, 2022




CHARGING UNITS

CCS 1(MIN 50 KW) - RS. 15L
CHADEMO 1(MIN 50KW) - RS. 15L
TYPE-2 AC (MIN 22 KW) - RS. 125L

FAST CHARGERS

BHARAT DC-001(MIN 15 KW) - RS. 2.5L
BHARAT AC-001(MIN 10 KW) - RS. 70K

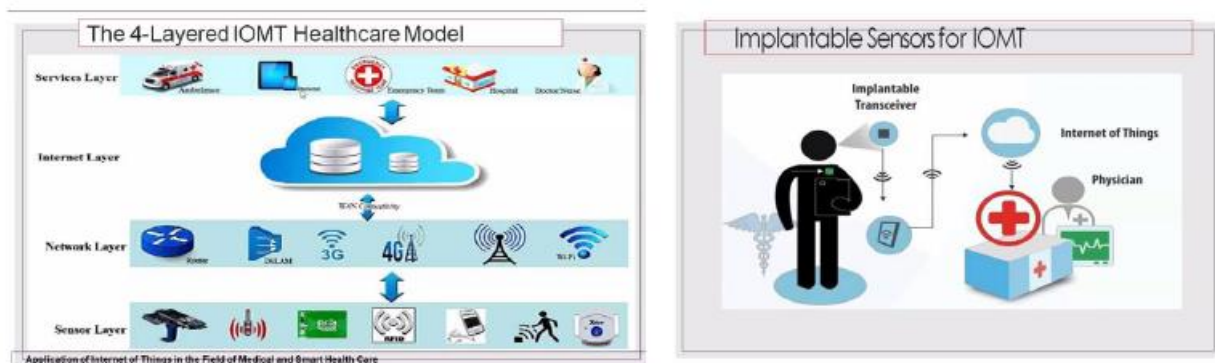


This was an amazing session by famed researcher who has filed several patents. The presentation was power packed with clear pictorials of use of IoT for the smart charging of EVs. The whole session was spell binding and no one seemed to be aware of how time passed. It made us feel that a much valuable research topic was there to consider and very practical, too with the current onset of EVs into the market.

The second technical session on Day-5 was “Internet of Medical Things ” by **Dr. Nalini Joseph, Professor, School of Computing, Bharath University, Chennai**, from 10:45 am – 12:15 pm



She presented use of IoT for Medicine and the session had a number of useful case studies in place. The recent technological innovations in the medical field were expounded at length by esteemed resource persons. The participants were enthusiastic and there were queries that were handled withease by the respected resource person.



The third technical session on Day-5 was “Smart Mirror Systems”, by **Dr. Vijayakumar, Associate Professor, Dept. Of ECE, CMR College of Engineering & Technology, Hyderabad**, from 1:30 pm – 3:15 pm.



Dr. Vijayakumar’s session was very solid in the basics of IoT and he was very much at ease in introducing the latest research topic on Smart Mirror Systems. He very patiently delved into the ocean of IoT conceptualizations and his words of wisdom to budding researchers were very commendable.

On Day-6 Mon 07-02-22, the first session was “National Education Policy 2020”, handled by **Prof. Dr. Sobha Manakkal, HoD EEE Department, NCERC**. A very professional session was delivered by respected Madam in the National Education Policy 2020, the brainchild of the Central Government of India. She very patiently and knowledgeably delved into the rudiments of this massive project. It’s to be recollected that Prof. Vijay D. Vaidya has emphasized on the importance of NEP 2020 in our educational institutions in the days to come.



On Day-6 Mon 07-02-22, the second session was “Mental Well-being and Stress Management”, handled by **Dr. Mallika Balakrishnan, Consultant Psychologist, Nehru Group of Institutions**. This is a much wanted session, after all the stressful activities partaken by all of us. The stress that we face in real life perceives no bounds and as mere human beings, destined to die in any case, it is of paramount importance to safeguard our living essence in a non-stressful manner with proper mental balance. Madam was very successful in conveying the need for proper mental health in a life without stress, in her sermon.



Finally, the **Valedictory Ceremony** was held on **Mon 07-02-22 from 1:30pm – 3:30 pm**. Our respected **HoD of ECE department, Prof. Dr. S. Rajkumar** introduced the 6-day programme and its details in brief and delivered the Welcome address. Our respected **Principal, Prof. Dr. Ambika Devi Amma T** presided over the Ceremony and her words of wisdom and praise for the organizers of the Programme was very encouraging. She welcomed the Chief Guest **Col B. Venkat, Director, AICTE, New Delhi** and the Guest for special address **Dr. Pratapsinh Desai, President- ISTE New Delhi**.



The honourable chief guest **Col B. Venkat, Director, AICTE, New Delhi** enthralled the participants with his words of wisdom and he spoke at length of the initiative of AICTE towards new frontiers of teaching learning in higher education.

The most honourable guest **Dr. Pratapsinh Kakasaheb Desai, President, ISTE, New Delhi**, was most magnanimous to participate in the function from the Airport, despite his busy travel schedule. He had words of praise for those taking up AICTE ISTE joint projects and was very happy with our detailed schedule of programme. In particular, he appreciated the highlighting of NEP 2020 in our programme, which he said was very important for all to be aware of.



Many participants of the programme provided online audio feedback and it was very nice to hear their words.

Among them, **Dr. Nageswara Rao** from Telengana, **Dr. Latha Lavanya** from Tamilnadu, **Ms. Sanoba Shaikh** from Navi Mumbai, Maharashtra and **Dr. S.Mohanpande** from Madhya Pradesh.

The Programme Coordinator Prof. P.Rajkumar read out the detailed Report of the AICTE-ISTE Induction/Refresher programme.

Finally, the Programme Coordinator Prof. P.Rajkumar gave the Vote of Thanks.

This was followed by the National Anthem.



Then, it was time for the online Final Objective Test and the link was provided over the chat box of WebEx platform along with the overall Feedback link.

The Programme concluded at 4:30 pm.

Report Prepared by:

Prof. P.Rajkumar
Programme
Coordinator
AICTE-ISTE Induction/Refresher Programme
Emerging Trends in Embedded Systems and IoT

Senior Assistant
Professor ECE
Department
NCERC.