# 26th MEETING OF THE BOARD OF GOVERNORS AGENDA NOTES



Date: 20.12.2021 Time: 2.30 pm

**Venue: Online (Google Meet)** 

### GOVERNMENT ENGINEERING COLLEGE KOZHIKODE

West Hill, Kozhikode - 673005, KERALA

Phone: 0495 2383210, Fax: 0495 2383220

# **BACKGROUND**

The 26th meeting of the Board of Governors of GEC Kozhikode is being convened on the 20th of December 2021, focusing on academic activities, development of facilities of the Institution and discussions on activities for the continuance of TEQIP II. The agenda items are given below:

**Agenda Items** 

Part A – Procedural						
Sl. No	Items	Page No.				
A1	Confirming the Minutes of the 25th Meeting of the Board of Governors held online on 12-07-2021	5				
	Part B – Reports					
B1	Brief summary on current status of the Institution	5				
B2	Current faculty position of the institution	7				
В3	Review of actions taken on the decisions of 25th BoG meeting 10					
B4	Academic Activity Reports	10				
	1. Admissions 2021-2022	10				
	2. Result analysis	13				
	3. Placement and higher studies statistics	15				
	4. Placement training for students	17				
	5. Alumni Interactions	18				
	6. Faculty publications	18				
	7. Research Activities – GEC Kozhikode	25				
	8. Training programmes undergone by faculty and staff	28				
	9. Major Achievements	30				
В5	Facililty Development	31				

В6	Finance: Status of Four funds	31		
В7	B7 Purchase			
	Part C – Future Activities: Proposals			
C1	New Proposals for - faculty and staff development programs, training for students, maintenance and replacements of items purchased under TEQIP II.	35		
	Part D – Other Items			
D1	Clarifications Sought	36		

### **PART A**

(Procedural)

# A1. CONFIRMATION OF THE MINUTES OF THE 25<sup>TH</sup> MEETING OF THE BOARD OF GOVERNORS HELD ONLINE ON 12.07.2021.

The Minutes of the 25<sup>th</sup> Meeting of Board of Governors of GEC Kozhikode held online on 12.07.2021 was sent to the Chairman and upon his consent, copies were circulated among the other members of the BoG. A copy of the Minutes is given in Appendix I for confirmation.

### **PART B**

### **B1. BRIEF SUMMARY ON THE CURRENT STATUS OF THE INSTITUTION.**

The Government Engineering College Kozhikode started functioning in the year 1999 with three B.Tech. Courses, Applied Electronics and Instrumentation Engineering, Chemical Engineering and Mechanical Engineering. In the progressive path of the Institution, B.Tech. Courses in

Civil Engineering (2006) and Electronics and Communication Engineering (2012), M.Tech. Programs in Computer Aided Process Design (2011), Energy systems -Analysis and Design (2012) and Signal Processing (2012) were commenced. Presently, the Institution runs 5 UG and 3 PG programs.

The UG programs in Applied Electronics and Instrumentation Engineering, Chemical Engineering, Civil Engineering and Mechanical Engineering got NBA accreditation for three years from 2017-18 to 2019-20 academic years and got it extended up to 30.06.2023. The SAR for the accreditation of the B.Tech. Program in Electronics and Communication was uploaded on 20.02.2020. The NBA visit is expected in February/ March 2022.

### **UG Programs**

Sl. No.	UG Program	Year of	Status of Accreditation
	(Sanctioned Intake of 60)	Starting	
1	Applied Electronics and Instrumentation Engineering	1999	Accredited till 30 June 2023
2	Chemical Engineering	1999	Accredited till 30 June 2023
3	Civil Engineering	2006	Accredited till 30 June 2023
4	Mechanical Engineering	1999	Accredited till 30 June 2023
5	Electronics and Communication	2012	Applied for accreditation-
	Engineering		NBA Visit is expected in Feb/
			March 2022.

# **PG Programs**

For the NBA accreditation of M.Tech. Programs in Computer Aided Process Design (Chemical Engineering) and Energy systems - Analysis and Design (Mechanical Engineering), the SAR was submitted on 21-6-2021.

Sl. No.	PG Program	Year of	
	(Sanctioned intake of 18)	Starting	Status of Accreditation
1	Computer Aided Process Design (Chemical Engineering)	2011	SAR Submitted on 21-6-2021.
2	Energy systems - Analysis and Design (Mechanical Engineering)	2012	SAR Submitted on 21-6-2021

### **B2. CURRENT FACULTY POSITION OF THE INSTITUTION**

Total sanctioned faculty posts : 92

Permanent Faculty available : 77

Adhoc faculty available : 13

Faculty with Ph.D. qualification : 40

Mechanical Engineering Department (Sanctioned – 21, Ph.D. – 11)								
Faculty	Sanctioned Nos.	Available Nos.	Qualification	Vacancy No.	Vacancy Nature			
Professor	2	2	PhD	0	-			
Associate Professor	5	4	PhD (3)	1	Permanent			
Assistant Professor	11	11	PhD (6)	0	-			
Adhoc faculty	3	2	PhD (1)	1	Temporary			

Chemical Engineering Department (Sanctioned – 16, Ph.D 6)							
Faculty	Sanctioned Nos.	Available Nos.	Qualification	Vacancy No.	Vacancy Nature		
Professor	2	2	Ph. D	Nil			
Associate Professor	4	3	Ph.D / M.Tech	1	Permanent		
Assistant Professor	10	10	Ph.D / M.Tech	Nil			
Adhoc faculty	1	1	M.Tech	Nil			

# **Civil Engineering Department (Sanctioned – 14, Ph.D - 5)**

Faculty	Sanctioned Nos.	Available Nos.	Qualification	Vacancy No.	Vacancy Nature
Professor	1	1	Ph.D	Nil	
Associate Professor	3	2	Ph.D	1	Permanent
Assistant Professor	10	9	M.Tech	1	Permanent
Adhoc faculty		2	M.Tech	Nil	

Applied Electronics Department (Sanctioned – 23, Ph.D 6)							
Faculty	Sanctioned Nos.	Available Nos.	Qualification	Vacancy No.	Vacancy Nature		
Professor	2	2	Ph.D. – 2	0	-		
Associate Professor	6	5	Ph.D. – 2 M.Tech 3	1	Permanent		
Assistant Professor	15	14	Ph.D. – 4 M.Tech 10	1	QIP vacancy		
Adhoc faculty	4 (as per additional workload)	4 (as per additional workload)+2 (against vacancy)	Ph.D 0 M.Tech 6	0	-		

Associate Professor	1	1	M.Tech. – 1	
Assistant Professor	2	2	Ph.D. – 1 M. Tech. – 1	

Applied Science Department (Sanctioned - 11, Ph.D 8)							
Faculty	Sanctioned No.	Available No.	Ovalification	Vacancy No.	Vanamay Natura		
			Qualification		Vacancy Nature		
Mathematics	4	4	3 M. Phil/ 3 PhD	0			
Physics	1	0	M. Phil	0	Maternity Leave		
Chemistry	3	3	3 Ph.D/ 1-PDF	0			
Physical Education	1	1	M. Phil	0			
Ad-hoc faculty	2	3	MSc/2 PhD	0	Vacancy against work load, Vacancy against Maternity Leave		

# **B3. REVIEW OF ACTIONS TAKEN ON THE DECISIONS OF 25 TH BOG MEETING**

Commencement of B.Tech	
Program in Computer Science	
and Design, and M.Tech	
Program in Structural	Government approval not received.
Engineering.	
Purchase of 25 Laptops for	Tabulation Procedures are completed.
students.	

# **B4. REPORTS ON ACTIVITIES**

# B 4.1. Admissions 2021-2022

**<u>UG</u>** Admissions of Current Academic Year: 2021-2022

**UG** students admitted: 325

### **Rank Details**

		State Me	erit	ОВС	No. of students Admitted
Sl. No.	Branch	First Rank	Last Rank	Last Rank	
1	AE & I	8012	14627	43464	55
2	Chemical	597	6316	38442	69
3	Civil	3304	8860	34153	67
4	Electronics	4058	7856	44809	67

5 Mechanical	5669	14372	39879	67	
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# PG Admissions of Current Academic Year: 2021-2022

PG Students admitted in 2021-2022: 34

Sl. No.	Specialization	No. of students admitted	No. of GATE students	Vacancy
1	Signal Processing	16	0	2
2	Computer Aided Process Design(Chemical Engineering Department)	9	0	9
3	Energy systems - Analysis and Design	9	1	9

# Comparison of B.Tech Admission Ranks with that of the previous year

Branch	_	Comparison of admission ranks with previous year (Given is the no. of students in each interval)								
Chemical	Rank in Interval	2020-21	2021-22							
Engineering	1-1000	0	1							

1001-5000	2	4	
5001-10000	23	29	
10001-20000	33	18	
20001and above	7	8	
Rank in Interval	2020-21	2021-22	
1-1000	0	0	
1001-5000	1	0	
	6	4	
5001-10000			
10001-20000	33	23	
20001and above	27	34	
Rank in Interval	2020-21	2021-22	
1-1000	0	0	
1001-5000	3	5	
5001-10000	16	14	
10001-20000	36	30	
20001and above	10	16	
Rank in Interval	2020-21	2021-22	
1-1000	0	0	
	5001-10000  10001-20000  20001and above  Rank in Interval  1-1000  1001-5000  5001-10000  20001and above  Rank in Interval  1-1000  1001-5000  5001-10000  10001-20000  20001and above  Rank in Interval	5001-10000       23         10001-20000       33         20001and above       7         Rank in Interval       2020-21         1-1000       0         1001-5000       1         6       5001-10000         10001-20000       33         20001and above       27         Rank in Interval       2020-21         1-1000       0         1001-5000       3         5001-10000       16         10001-20000       36         20001and above       10         Rank in Interval       2020-21	

	1001-5000	0	0
	5001-10000	2	1
	10001-20000	8	12
	20001and above	27	38
<b>Electronics and</b>	Rank in Interval	2020-21	2021-22
Communication Engineering	1-1000	0	0
	1001-5000	3	2
	5001-10000	22	19
	10001-20000	26	29
	20001and above	14	13

# **B 4.2. Result Analysis**

# Pass percentage of 2017 - 2021 batch

Sl. No.	Branch	Pass %	Number of Honours
1	Applied Electronics and Instrumentation Engineering	46.29	3
2	Chemical Engineering	81.53	9

3	Civil Engineering	86	23
4	Mechanical Engineering	66.66	-
5	Electronics and Communication Engineering	66.6	8

# KTU Result Analysis – Semester wise pass percentages

Branch	Batch	S1	S2	S3	S4	S5	<b>S6</b>	S7	S8
MEC	20-24	71.21							
HAN ICAL	19 - 23	83.6	95.1	31.34					
	18 - 22	79.3	81	67	88	60.6	67.9		
	17 - 21	93.44	88.23	86.67	68	85.07	100	79.1	94

Branch	Batch	S1	S2	S3	S4	S5	<b>S6</b>	<b>S7</b>	S8
СНЕ	20-24	84.62							
MIC	19 - 23	88.72	94.91	81.54					
AL	18 - 22	69.0	71.0	59.0	92.0	82.3	42.62		
	17 - 21	75.0	78.0	58.2	69.7	86.0	95.38	69.2	96.92
Branch	Batch	S1	S2	S3	<b>S4</b>	S5	<b>S6</b>	<b>S7</b>	<b>S8</b>

	20-24	86.15							
	19 - 23	85	95	72.73					
	18 - 22	88	85	80	88	74.24	68.18		
Civil	17 - 21	100	98	88	88.9	87.6	100	85	88

Branch	Batch	S1	S2	<b>S3</b>	S4	S5	<b>S6</b>	<b>S7</b>	S8
Appli	20-24	60							
ed Elect	19 - 23	38.1	96.23	49.28					
ronic	18 - 22	78.13	76.19	52.17	85.51	56.52	23.19		
S	17 - 21	87.5	87.5	59.56	64.81	64.81	92.59	74.07	96.29

Branch	Batch	S1	<b>S2</b>	<b>S3</b>	<b>S4</b>	<b>S5</b>	<b>S6</b>	<b>S7</b>	<b>S8</b>
Electr	20-24	64.62							
onics	19 - 23	91.52	100	71.21					
and Comm	18 - 22	81.03	74.58	40.3	86.56	37.9	48.48		
unicat									
ion	17 - 21	100	100	98.5	86.4	76.4	100	89.8	100

### PG Results (2019-2021, 2020-2022 Batches)

		Pass %		
Sl. No.	Sl. No. PG Program		S1	
1	Computer Aided Process Design	1000/	1000/	
1	(Chemical Engineering)	100%	100%	
	Energy systems - Analysis and Design (Mechanical			
2	Engineering)	100%	73%	
3	Signal Processing (Applied Electronics and	100.0/	1000/	
	Instrumentation Engineering)	100 %	100%	

# **B 4.3. Placement / Higher Studies Statistics**

### **Higher Studies Statistics**

No. of Students Appeared/Qualified in GATE 2021

Programme	CE	ME	СН	AE&I	EC
No. appeared for GATE 2021	70	11	25	12	17
Qualified in GATE 2021	21	2	0	2	1

# **Placements**

Placements of UG Students from 01.04.2021 till 12.12.21

Program: B.Tech.	Period	AE I	Chemica l	Civi l	Electronic s	Mechanical
	15.09.21 t o 12.12.21	9	5	10	22	3
No. of students placed	10.4.21 t o 14.9.21	4	0	2	10	1

# **Details:**

• Placement Domain: IT

• Mode of recruitment: Online

• Average Salary: 3.5 - 4 lakhs per annum

Placement status for UG 2020-21 pass out batch  $\approx 21.4 \%$ 

### Placement and higher studies Details of PG (2019- 2021 Batch) Students

Program M.Tech.	Total no. of students	No. of students employed	No. of students joined for Higher studies	No. of students GATE Qualified
Computer Aided Process				
Design (Chemical)	12	4	1	0

Energy Systems – Design and				
Analysis (Mechanical)	8	2	1	1
Signal Processing (AE&I)	17	4	0	0
Total	37	10	1	2

Companies that offered Placements: Tata Consultancy Services, QBurst, Cognizant, Larsen & Toubro, Wipro, UST, South Indian Bank, Infosys.

# **B.** Tech Placements - Comparison

Year of pass out	Total no. of students	No. of campus placements	% Placement
2020	305	39	12.78
2021	360 (325 UG, PG 35)	83 (78 UG, 5 PG)	23.05
2022	374 (329 UG, PG 45)	68 (66 UG, 2 PG)	18.18

# **B 4.4.** Placement trainings for students (with Four Funds support).

SI No.	Trainings Offered	Period	Mode	Cost (INR)	Trainer details	No of Students benefitted
1	Pre-placement training - Prefinal years	24-3-21 to 8-4-21 (5days)	online	8,500	Jays Academy, Tvm	181
2	Pre-placement training for all s6 students	JUNE 2021 (14.6.21 to 18-6-21) 5 days- 10 HRS	online	17,000	Jays Academy, Tvm	250 students registered
3	Pre-placement training for all s6 students	JULY 2021 (7.7.21 to 9-7-21) 3 days- 6 HRS -2 batches	online	9,000	EDZUMO Pvt. Ltd. Tvm	250 students registered
4	Placement oriented Training on C Programming.	JULY 2021 3 weeks virtual training	online	10,754	Prof. Rashid Ummer, AEI Dept.	228

5	Pre-Placement Training for all M.Tech students	AUGUST 2021 (2.8.21 to 14-8-21) 12 days- 24 Hours	online	20,400	Jays Academy, Tvm	45
6	WIPRO Specific training Program	SEPTEMBER 2021 (20-9-2021 to 22-9-2021) 3 days	online	25,075	Jays Academy, Tvm	60

# B 4.5. Alumni interactions

**Programs Conducted for the students** 

Event	Objective	Participants	Mode	Date	Alumni Details
					Krishna Gopal (CH)-Senior Manager RIL
					Ajeesh K N (CH) ,Director Diotech Systems & Projects
					Ammu S (Civil)
		2021 passed out			Naseeba Parvin (CH)
Beyond the	_	students and	anlina	13-11-2021	Arun Narath (AE&I)-Project. Manager, Siemens India
Degree		current final years (120+ students	online	13-11-2021	Liju Krishnan (ME)-Scientific Officer, IGCAR
		registered)			Akhil Thanku (ME)- JPJ BIM consultancy
					Maneesh K R (ME)-Inspector, Customs & Central Tax
					Dr.Ajesh Kumar(AE&I) -PhD IIT ,Madras
					Dr.Mohamed Ibrahim (Post doctoral researcher, UAE University)
					Dr. Alex P James (AE&I)- Associate Dean, Digital University, Kerala
					Dr.Alan Ranjith Jacob (CH)- Assistant Professor, IIT Hyderabad
Meet the Alumnus	Interactive session with first year students	2021 admission B. Tech students	online	23-11-2021	Dr.Vipin B (ME)-Assistant Professor, IIT Kanpur
Mullinus					Dr.Rohan Bhasker (CE)- Senior Project officer, IIT Madras
					Mr. Hisham Hussain(EC)- Network Engineer, UAE
How to crack GATE?	Motivation	S7,S5,S3 Civil Engg. students	4.12.21	4.12.21	Dr.Rohan Bhasker (CE)- Senior Project officer, IIT Madras

# 4.6. Faculty Publications from April 2021

Department: Mechanical Engineering

S 1 No.	Title of the paper	Name of Faculty	Journals
1	Development of solar energy based desalination system using a hyperboloid concentrator	Dr. Pradeep V.	Materials Today : Proceedings- Elsevier Vol. 46 (2021) - September 2021 ( Final Version)press.
2	A model based on cellular automata for investigating the impact of lockdown, migration and vaccination on COVID-19 dynamics	Dr. Jithesh P K	Computer Methods and Programs in Biomedicine, 211 (2021), 106402
3	Simulation Modelling and Analysis of Due Date Assignment Methods and Scheduling Decision Rules in a Flexible Manufacturing Systems	Prof. Muhammed Anees V V	Advances in Science and Technology-Trans Tech Publications Ltd, Switzerland

S l No	Title of the paper	Name of Faculty	Conferences
1	Use of Alternate refrigerants in Vortex Tubes for improved performance -a simulation approach	Dr. Pradeep V	SSRN-Elsevier- International Conference YUKTHI - 2021 Govt. Engg. College Kozhikode
2	Thermo-hydraulic analysis of air to water heat exchanger with turbulence enhancement	Dr. Sajith. P. P. and Prajeeth Kumar. K. P.	SSRN-Elsevier- International Conference YUKTHI - 2021 Govt. Engg. College Kozhikode

3	Heat transfer augmentation in double pipe heat exchanger: A review on passive methods	Dr. Sajith. P. P. and Prajeeth Kumar. K. P.	SSRN-Elsevier- International Conference YUKTHI - 2021 Govt. Engg. College Kozhikode
4	Performance improvement through Kaizen and Failure Mode and Effect Analysis (FMEA) in an academic institution	Nidhin Sreedas E and Francis J Emmatty	SSRN-Elsevier- International Conference ICAME - 2021 TKMCE Kollam
5	Optimization of a Hybrid Solar- MED-OTEC System for freshwater and hydrogen production	Arun Shal U B	SSRN-Elsevier- International Conference YUKTHI - 2021 Govt. Engg. College Kozhikode
	Energy Analysis in a micro channel with Nano fluid	Dr.Jesseela S	SSRN-Elsevier- International Conference YUKTHI - 2021 Govt. Engg. College Kozhikode

# Department: Chemical Engineering

S I No	Title of the paper	Name of Faculty	Journal
1	Aqueous two-phase extraction of lead from contaminated aqueous solutions	Suji S. K. and Radhakrishnan K. B.	IOP Conference Series: Materials Science and Engineering

2	Optimization studies on aqueous two-phase extraction of hexavalent chromium from contaminated aqueous solutions	Suji S. K., Sinju M. and Radhakrishnan K. B.	IOP Conference Series: Materials Science and Engineering
3	The oxygenic photogranule for wastewater treatment process	Adil Muhammed, Avatar Poduval, Piyush Oonikrishnan, Pranav K Narayanan, Yadhuraj	IOP Conference Series: Materials Science and Engineering

S 1 No.	Title of the paper	Name of Faculty	Conferences
1	Optimization and comparative study of renzyme assisted extraction of bioactive compounds from Zingiber Officinale Roscoe	Drisya G Chandran, Sindhu Nangarthody	International conference on Process Engineering & Sustainable Technology (STEP 2021)
2	Simulation of biomass gasification using Aspen Plus and UniSim Design: A review	Lincy Sunny K, Beula C	International conference on Process Engineering & Sustainable Technology (STEP 2021)
3	Emerging trends in biomimetics: An Overview	Gokul Chandan, Beula C	International conference on Process Engineering & Sustainable Technology (STEP 2021)

			International conference on Process
4	Corrosion protection by	Faiza E K, Beula C	Engineering & Sustainable Technology (STEP
	conducting polymers: A review		2021)

# Department: Civil Engineering

S 1 No	Title of the paper	Name of Faculty	Journals
1	Influence of socio demographic characteristics on activity travel behaviour of commuters in a medium sized city in India	Sreela PK & MVLR Anjaneyulu	International Journal of traffic and transportation engineering

S1.	Title of the paper	Name of Faculty	Conference
1	Experimental evaluation of the effect of infill in the dynamic responses of multi storied structures	Dr Rahmathulla Noufal E	International conference on recent trends in construction materials and structures
2	Water Demand Prediction: A Novel Approach Using Artificial Neural Network	Shyba A	International Conference on Emerging Trends in Engineering

# Department: Applied Electronics and Instrumentation Engineering

S 1 No	Title of the paper	Name of Faculty	Journals / Conferences
1	Plant Leaf Species Classification using Hierarchical Gaussian Mixture Model Ellipse Fitting	Muneeba K, Abdu Rahiman V	International Conference on Emerging trends in Engineering(Yukthi 2021)
3	Distance Metric Learning based kNN for Speech Emotion Recognition in Semi-supervised Setting	Dr. Shajee Mohan B S, Remya, Dr. Ahammed Muneer K V	International Conference on Emerging trends in Engineering(Yukthi 2021)
4	Music Genre Classification using Spectrograms	Dr. Shajee Mohan B S, Nirmal M	International Conference on Power, Instrumentation, Control and Computing (PICC), 2020, IEEE Xplore, pp. 1-5, doi: 10.1109/ PICC51425.2020.9362364.
5	Distance Metric Learnt Kernel- Based Music Classification using Timbral Descriptors	Dr. Shajee Mohan B S, Dr. Rajeev Rajan	International Journal of Pattern Recognition and Artificial Intelligence", IJPRAI September-2021.
6	Semi-supervised Learning Techniques for Speech Emotion Recognition	Dr. Shajee Mohan B S, Remya, Dr. Ahammed Muneer K V	Journal of Physics: Conference Series, IOP Publishing, volume 1921. pp-12-29, May 2021, doi: 10.1088/1742-6596/1921/1/012029.

7	Modified ML-kNN and Rank	Dr. Shajee Mohan	Journal of Physics: Conference
	SVM for Multi-label Pattern	B S, Thanseeha,	Series, IOP Publishing, volume
	Classification	Dr. Ahammed	1921. pp-12-27, May 2021, doi:
		Muneer K V	10.1088/1742-6596/1921/1/012027.

# **Applied Science Department**

S1. No	Title of the paper	Name of Faculty	Journal/conference
1	A Study on the Homogeneity and Bi- homogeneity of the c-spaces with Special Reference to Graphical c-spaces	Santhosh P. K, Madhavan Namboothiri N. M and Jayaprasad P N	Indian J. Discrete Math., Vol. 7, No.1 (2021) pp. 1–11., Academy of Discrete Mathematics and Applications, India.
2	On a stronger Notion of connectedness in c-spaces	Santhosh P. K	Algebra and Discrete Mathematics (Accepted)
3	Effect of circuit training Programme on Vo 2 Max Among Badminton Players	Jayakumar M	STD Journal, Volume X, April 21
4	Effect of resistance training Programme on Vo 2 Max Among badminton Players	Jayakumar M	Zeichen Journal, Vol 7, Issue 4, Aprl-21
5	Effect of resistance circuit and combined training programme on explosive strength among Amateur Badminton players	Jayakumar M	Scholarly research Journal for Interdisciplinary studies, VI. 10, Issue 54

6	Synthesis, anticancer and larvicidal activities of a novel Schiff base ligand, 3-((2-((1-(4-hydroxyphenyl) ethylidene) amino) ethyl) imino)-N-(p-tolyl) butanamide and its Mn(II), Co(II), Ni(II) and Zn(II) complexesFe(III))	Subin Kumar K, Reena V. N, K. K Aravindashan	Results in Chemistry (Publishers: Elsevier), Published: August 3, 2021
7	Anticancer, in vitro cytotoxicity and antimicrobial properties of a Schiff base ligand, 3-((2-(-(1-(2-hydroxyphenyl) ethylidene) amino) ethyl) imino)-N-(p-tolyl) butanamide, and its metal Complexes	Subin Kumar K	Journal of Coordination chemistry (Publishers: Tylor & Description of the Coordination (Published: 18/09/2021)

# **B 4.7. Research Activities – GEC Kozhikode**

### B4.7.1. No. of Ph.Ds Produced so far

AE & I	CE	ME	CHE
1	-0-	-0-	-0-

# B4.7.2. No. Ph.D. Scholars currently doing research in various Departmentss.

AE & I	CE	ME	СНЕ
08	-0-	3	1

# B4.7.3. No. of faculty members for higher studies

AE & I	CE	ME	СНЕ
02	3	4	5

### B4.7.4. Centre Of Excellence (Coe) In Sustainable Technologies- Proposal

A centre of excellence, funded by DTE Kerala has been proposed by GEC Kozhikode. The objectives of the proposed centre of excellence, details of activities proposed by the Department of Chemical Engineering, Department of Applied Electronics & Instrumentation Engineering and Department of Mechanical Engineering along with the split-up of estimated budget 667.58 Lakhs are available, but not presented here for the sake of brevity.

### B4.7.5. International Conference: The International Conference on Emerging Trends in Engineering – Yukthi 2021

GEC Kozhikode successfully hosted an international conference, first of its kind in GEC Kozhikode during 24-26th September 2021 under the sponsorship of TEQIP-II Four funds. The international conference is named "Yukthi 2021 – The international Conference in Emerging Trends in Engineering" is an attempt to explore the avenues in technology through conducting world class events such as paper presentations, panel discussions, webinars etc. Yukthi 2021 provided a venue for the confluence of latest ideas, thoughts and innovations of talented minds from the whole world. The International conferences was conducted during 24-26th September 2021 using online methods and strictly following COVID-19 protocols.

### **Conference Tracks:**

- 1. International Conference on Emerging Trends in Signal Processing
- 2. International Conference on Smart Solutions for Sustainable Infrastructure
- 3. International Conference on Process Engineering and Sustainable Technology
- 4. International Conference on Mechanical Engineering and Energy Technologies

**Publication Partner**: Elsevier SSRN

# Statistics of the received / accepted papers for Yukthi 2021- The International Conference on Emerging Trends in Engineering

Total number of papers received up to 12:00 Midnight 30-06-2021: 217

Sl No	Sub conference Track	No. of Papers recieved	No. of papers Accepted
1	International conference on Emerging Trends in Signal Processing	46	19
2	International Conference on Process Engineering and Sustainable Technology – (STEP 2021)	50	40
3	International Conference on Smart Solutions for Sustainable Infrastructure	88	24
4	International Conference on Mechanical Engineering and Energy Technologies	33	21

### **Expediture statement**

Sl No	Item /Description	Approximate Expenditure in Rs	Revenue Generated (Registration Fee)
1	Publication of conference proceedings by Elsevier SSRN conference proceedings	\$6195= 4,58,430 + Exchange Expenses =461319.00	

	Funds Advanced from TEQIP II 4 funds	458430.00	
	Total	546319.00	160000.00
7	Registration Fee received		160000.00
6	Miscellaneous expenses (Plagiarism checker, Google meet subscription etc)	13000.00	
5	Honorarium for support staff	9000.00	
4	Expenditure towards payment of remuneration for internal speakers, chair, keynote speakers etc. (Remuneration rates will be as per Govt. norms)	18000.00	
3	Expenses for the remuneration for invited external speakers, keynote speakers, chair etc) (Remuneration rates will be as per Govt. norms)	45000.00	
2	Website hosting and Conference Management System expenses	10384.00	

# B 4.7.6. Research Activities under seed money project:

S L N o	Department t	Title of the Project	Investigato r	Estimated Expenses	Sanctioned amount
1	СНЕМ	K.T.U CERD Research Seed Money project 'Cost effective packed bed column with zinc oxide coated regenerated spent FCC catalyst system for the water treatment'	Prof. Adil Muhamme d	2 Lakhs	Rs. 60000.00
2	СНЕМ	KTU-CERD-RSM pesticide removal from aqueous solution using bio biochar	Smt. Suma K	2 Lakhs	Nil
	СНЕМ	TEQIP-II Research Seed Money project 'Kinetic and mass transfer study of CO2 absorption in sodium hydroxide solution' –	Prof. Adil Muhamme d	Rs 2 Lakhs	Nil

# **B 4.8** Training Programmes attended by Faculty with TEQIP Funding

Sl. No.	Name of Department	No. of Courses attended by Faculty	Mode	Used 4 Funds or not
1.	AE&I	17	Online	No

2.	Applied Sciences	2	Online	No
3	Civil Engineering	21	Online	No
4	Chemical Engineering	8	Online	No
5	Mechanicall Engineering	15/31	Online	No

# **Mechanical Engineering**

Sl. No.	Name of faculty/Staff	Course attended	Institution	Used 4 Funds or not
1	Nidhin Sreedas E ,Assistant Professor	Orientation towards Technical Education and curriculam aspects	AICTE-NITTTR	YES
2	Nidhin Sreedas E ,Assistant Professor	Professioanal Ethics and Sustainability	AICTE-NITTTR	YES
3	Nidhin Sreedas E ,Assistant Professor	Communication skills,modes and knowledge dissemination	AICTE-NITTTR	YES
4	Nidhin Sreedas E ,Assistant Professor	Instructional Planning and Delivey	AICTE-NITTTR	YES
5	Nidhin Sreedas E ,Assistant Professor	Technology Enabled Learning and Life long self Learning	AICTE-NITTTR	YES

6	Nidhin Sreedas E ,Assistant Professor	Student Assessment and Evaluation	AICTE-NITTTR	YES
7	Nidhin Sreedas E Assistant Professor	Creative Problem solving , Innovation and Meaningful R & D	AICTE-NITTTR	YES
8	Nidhin Sreedas E ,Assistant Professor	Institutional Management and Administrative Procedures	AICTE-NITTTR	YES
9	Arun Shal U B ,Assistant Professor	Orientation towards Technical Education and curriculam aspects	AICTE-NITTTR	YES
10	Arun Shal U B ,Assistant Professor	Professioanal Ethics and Sustainability	AICTE-NITTTR	YES
11	Arun Shal U B ,Assistant Professor	Communication skills,modes and knowledge dissemination	AICTE-NITTTR	YES
12	Arun Shal U B ,Assistant Professor	Instructional Planning and Delivey	AICTE-NITTTR	YES
13	Arun Shal U B ,Assistant Professor	Technology Enabled Learning and Life long self Learning	AICTE-NITTTR	YES
`14	Arun Shal U B ,Assistant Professor	Student Assessment and Evaluation	AICTE-NITTTR	YES

15	Arun Shal U B ,Assistant Professor	Creative Problem solving , Innovation and Meaningful R & D	AICTE-NITTTR	YES
16	Arun Shal U B ,Assistant Professor	Institutional Management and Administrative Procedures	AICTE-NITTTR	YES

### **B 4.9. Major Achievements**

- Government sanction obtained for finding new location for the Institute
- Administrative sanction for CCF cum Library block. (Estimate: 10 crores)

### **Chemical Engineering Department**

- University rank holder (6th) in the 2021 pass out batch.
- 2021 pass out batch students were placed in INFOSYSIS, TCS, South Indian Bank.
- Students also opted to pursue higher studies internationally.
- Current final year (5 students) students were placed at TCS.
- One of our final student is selected to the KTU F -ZONE football team.
- Two faculty members are selected for Ph.D. program under QIP at IIT Madras.
- Department has organised international conference STEP 2021.
- The Chemical Engineering Department conducted two Faculty development programs using TEQIP and AICTE fund.

### **Mechanical Engineering**

- PATENT Granted to Dr. Pradeep V, Professor Government of India- Patent No. 364625 13-4-2021 Title- Twin Injector System for Two stroke Engines
- Yukthi- 2021- URJA -2021- International Conference Organised by Department of Mechanical Engineering
- Induction Programme One week for B.Tech first semester Students 2021 admission, November 2021
- PATENT Granted to Prof. Francis J Emmatty, Assistant Professor Government of India- Patent No. 380432 27-10-2021 Title-

Multipurpose Waste Picker

### **AE&I** Department

K, Remya and Mohan B S, Shajee and K V Ahammed Muneer, Distance Metric Learning based kNN for Speech Emotion Recognition in Semi-supervised Setting (September 27, 2021). Available at SSRN: https://ssrn.com/abstract=3969596 or http://dx.doi.org/10.2139/ssrn.3969596 -

### **B5. FACILITY DEVELOPMENT**

- New Location for the Institute: Government sanction had been obtained for finding new location for the Institution, and the institution identified and recommended a new location at Kumulli around 35 acres of land.
- A new Canteen Block has been constructed for the College by District Nirmithi Kendra, including the contribution from the M P Fund of Honourable MP Sri K K Ragesh.

### **B6. FINANCE REPORT: STATUS OF FOUR FUNDS**

The four funds - Corpus Fund, Faculty and Staff Development Fund, Equipment Replacement Fund and Equipment Maintenance Fund are functioning to ensure sustainability of the reforms brought by TEQIP II beyond the Project Period, for five years from July 2017 to July 2022.

The accounts presented here are upto November 30, 2021. As of now, the completed expenditure is 27.19%.

### 1. CURRENT STATUS OF FOUR FUNDS

Heads	Total Allotted	Expenses	Processing Started	Total Expected expenditure	Balance Rs. (Total allocated -Total Expected)
Corpus	44,60,479	18,83,459	25,35,232	44,18,691	41,788
Faculty and Staff development	22,42,665	7,74,086	6,49,492	14,23,578	8,19,087
Equipment Replacement	44,30,445	3,52,146	39,89,959	43,42,105	88,340
Maintenance	2011068	5,63,919	9,24,728	14,88,647	5,22,421
Total	1,31,44,657	35,73,610	80,99,411	1,16,73,021	14,71,636
% of Expenditure		27.19%		88.80%	11.19%

# 2. EXPENSES FROM FOUR FUNDS: RS.5,50,102 (completed processing)

Period 01.04.2021 to 30.11.2021

Sl. No	Item Description	Amount	
	1. Corpus fund		
1	Salary of staff (1/04/2021 to 30/11/2021)	1,47,450	

2	GATE Coaching 2020	29,400
3	Student (& Faculty) conferences	9,593
4	Pre-placement training for students	34,500
5	Remedial Class	22,200
6	BOG meeting	19,000
7	Visiting Faculty	21,000
8	Others	47,200
	Total	3,30,343
	2. Faculty Staff Development Fund	·
1	Out station training attended by faculty	21,000
2	PhD /ISTE fee/IEEE fee/IIChE fee	53,743
3	In house training programmes	18,000
	Total	92,743
	3. Equipment maintenance fund	253,56
	4. Equipment replacement fund	1,01,660
	Total	5,50,102

### 3. FILES UNDER PROCESSING

Sl. No	Item Description	Amount	
	1. Corpus Fund		
1	Training programmes for students	1,51,500	
2	GATE coaching	32,400	
3	Student (& Faculty) conferences	4,93,790	
4	NPTEL Course for students	76,000	
5	R& D project	33,542	
6	Audit	48,000	
7	Laptop for students	17,00,000	
	Total	25,35,232	
	2. Faculty Staff Development Fund		
1	Out station training attended by faculty	82,826	
2	ISTE fee /IIChE Fee	27,510	
3	In house training programmes	1,33,906	
4	R&D Seed money	4,00,000	
5	PhD Fee	5,250	
	Total	6,49,492	
	3. Equipment maintenance fund		
		9,24,728	
	4. Equipment replacement fund	39,89,959	

	Total	80,99,411
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### **B 7. PURCHASE**

The major purchases / repairs (cost above Rs.15000/-) done under the heads replacements and maintenance of equipments, during April 2021 to November 30, 2021 are furnished below.

Sl. No	Name of the Item	Department	Amount	Status of Bill
1	Replacement of Battery (Buy Back scheme) for 5KVA UPS	AE&I Engineering Department	61000	Paid
2	Replacement of Battery (Buy Back scheme) of sophicated equipment	Chemical Engineering Department	40660	Paid

# PART C

(Future Activities/Proposals)

C1. New Proposals for - faculty and staff development programs, training for students, maintenance and replacements of items purchased under TEOIP II

There are several applications for attending and presenting papers in Conferences, participating in Short term courses, refund of MOOC Course fees (134 student applications for MOOC fee refund), Ph.D fees, Conduct of Remedial Classes, Membership fees for Professional bodies such as ISTE, maintenance, replacement and repair – all of which are of conventional nature except for certain applications with respect to MOOC Courses and PhD fee refund.

### PART D

### (Other Items)

### **D1. CLARIFICATIONS SOUGHT:**

TEQIP II GEC Kozhikode would be obliged for further clarifications on the under mentioned.

1. **Part-time Ph. D Fee Heads**: The revised Guidelines (Item 6) has specified the refund of Registration Fees and Tuition Fees. We are now receiving a lot of applications from Part time research Scholars with different fee heads in their receipts- such as Course Fee, research fee, etc.

2. **MOOC Course Registration Fees**: The revised Guidelines (Item13) has specified the refund of Registration Fees (Rs.1000 per course). We are now receiving a lot of applications with Module fee of Rs.8000 for 8 Courses( which is mandatory for the fresh PSC Assistant Professors) and registration fee of Rs.2000 per module, registered with NITT.

<End of Notes>.

**RESULT ANALYSIS 2017-21 BATCH** 

Pass % in first attempt

Branch	S1	<b>S2</b>	<b>S3</b>	<b>S4</b>	<b>S5</b>	<b>S</b> 6	<b>S7</b>	<b>S8</b>
Chemical Engineering	75	78	58.2	69.7	86	95.38	69.2	96.92
AEI	44.07	54.24	17.54	22.81	38.89	83.33	48.15	96.29
ECE	93.2	98.4	95.3	83.07	60.3	100	75.38	96.92
ME	91.8	86.89	71.64	55.22	50.75	100	44.77	92.54
CE	87.9	94.8	77.6	68.7	77.61	94	85	98.55
CE	87.9	94.8	//.6	68.7	//.61	94	85	98.5

Pass % after subsequent attempts									
Branch	S1	S2	<b>S3</b>	S4	S5	<b>S</b> 6	<b>S7</b>	<b>S8</b>	
Chemical Engineering	96.66	96.66	90.76	87.69	92.3	95.38	89.23	96.92	
AEI	87.5	87.5	59.56	64.81	64.81	92.59	74.07	96.29	
ECE	100	100	98.5	86.4	76.4	100	89.8	96.92	
ME	93.44	88.23	86.67	68	85.07	100	79.1	92.54	
CE	93.6	95.2	92.75	91.3	92.7	95.65	91.3	98.55	

How to crack GATE? Rohan Bhasker dr km kouzer ug dean 4.12.21 1.5 hours students s7, s5 s3