

**23<sup>rd</sup> MEETING OF  
THE BOARD OF GOVERNORS**

**AGENDA NOTES**



**Date: 07.12.2020**

**Time: 02.30pm**

**Venue: Online (Google Meet)**

**GOVERNMENT ENGINEERING COLLEGE Kozhikode**

**West Hill, Kozhikode - 673005, KERALA**

**Phone: 0495 2383210, Fax: 0495 2383220**

**Background:**

The 23<sup>rd</sup> meeting of the Board of Governors of GEC Kozhikode is being convened on 7<sup>th</sup> of December, 2020 focussing academic activities, progress on facilities of the Institution and discussions on activities for the continuance of TEQIP II.

The agenda items are given below:

**Agenda Items**

<b>Part A - Procedural</b>		
<b>Sl. No</b>	<b>Items</b>	<b>Page No.</b>
A1	Confirming the Minutes of the 22 <sup>nd</sup> Meeting of the Board of Governors held on 07.02.2020 at GEC Kozhikode	3
<b>Part B - Reports</b>		
B1	Brief summary on current status of the Institution	4
B2	Current faculty position of the institution	5
B3	Review of actions taken on the decisions of 22 <sup>nd</sup> BoG meeting	7
B4	Academic Activity Reports	
	1. Admissions 2020-2021	7
	2. Result analysis	8
	3. Placement: Placement and higher studies statistics	11
	4. Placement training for students	11
	5. Faculty publications	14
	6. Training programmes undergone by faculty and staff	18
	7. Major Achievements	29
B5	Finance : Status of Four funds Ratification of expenses from four funds	29
B6	Purchase	31
B7	Report on proposed International Conference	32
<b>Part C – Future Activities: Proposals</b>		
C1	New Proposals for - faculty and staff development programs, training for students, maintenance and replacements of items purchased under TEQIP II.	33
C2	Proposal for Shifting to new campus	39
<b>Part D – Other Items</b>		
D1	Approval of Revised committees	40
D2	Amendment of Four Fund Utilization Guidelines in respect of online workshops, trainings etc.	41
<b>Appendices</b>		
	Appendix I - Minutes of 22 <sup>nd</sup> BoG meeting	42
	Appendix II - Details of expenditure from four funds	46

## **Part A**

### **Procedural**

#### **A1. Confirmation of the Minutes of the 22<sup>nd</sup> Meeting of the Board of Governors held on 07.02.2020 at GEC Kozhikode**

The Minutes of the 22<sup>nd</sup> Meeting of Board of Governors of GEC Kozhikode held on 07.02.2020 at GEC Kozhikode 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 current status of the Institution.

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 B.Tech. program in Electronics and Communication is uploaded on 20.02.2020.

### UG Programs

Sl. No.	UG Program (Sanctioned Intake of 60)	Year of starting	Status of Accreditation
1	Applied Electronics and Instrumentation Engineering	1999	Accredited for 3 years 2017 – 20, up to 30.06.2020 and extended for next three years up to 30.06.2023.
2	Chemical Engineering	1999	
3	Civil Engineering	2006	
4	Mechanical Engineering	1999	
5	Electronics and Communication Engineering	2012	Applied during 2019-2020 academic year. SAR uploaded

For the NBA accreditation of M.Tech. programs in Computer Aided Process Design (Chemical Engineering) and Energy systems - Analysis and Design (Mechanical Engineering), the pre-qualifier is uploaded in November 2020. The M.Tech. program in Applied Electronics Department just missed (falling short by 4 marks) the qualifying limit in the NBA accreditation of UG program.

## PG Programs

Sl. No.	PG Program (Sanctioned intake of 18)	Year of starting	Status of Accreditation
1	Computer Aided Process Design (Chemical Engineering)	2011	Pre-qualifier uploaded for Accreditation
2	Energy systems - Analysis and Design (Mechanical Engineering)	2012	Pre-qualifier uploaded for Accreditation
3	Signal Processing (Applied Electronics and Instrumentation Engineering)	2012	Not eligible to apply for accreditation

## B2. Current faculty position of the institution

<b>Total sanctioned faculty posts</b>	<b>: 83 + 10</b>
<b>Permanent Faculty available</b>	<b>: 76</b>
<b>Adhoc faculty available</b>	<b>: 15</b>
<b>Faculty with Ph.D. qualification</b>	<b>: 35 + 1(adhoc)</b>

<b>Mechanical Engineering Department (Sanctioned – 18, Ph.D. - 12)</b>					
	Sanctioned Nos.	Available Nos.	Qualification	Vacancy No.	Vacancy Nature
<b>Professor</b>	2	2	Ph.D. - 2	0	NA
<b>Associate Professor</b>	5	4	Ph.D. – 4	1	On leave (For Ph.D. completion at IIT Delhi)
<b>Assistant Professor</b>	11	10	Ph.D. - 6 M.Tech.-4	1	Permanent
Adhoc faculty	1 (by DTE)	3	M. Tech.- 3	0	NA

<b>Chemical Engineering Department (Sanctioned – 16, Ph.D. - 6)</b>					
	Sanctioned Nos.	Available Nos.	Qualification	Vacancy No.	Vacancy Nature
<b>Professor</b>	2	2	Ph.D. - 2	0	
<b>Associate Professor</b>	4	3	Ph.D. – 2 M.Tech.- 1	1	Permanent
<b>Assistant Professor</b>	10	9	Ph.D. – 2 M.Tech. - 7	1	Permanent
Adhoc faculty	1 leave vacancy	3	M.Tech. - 3	--	

<b>Civil Engineering Department (Sanctioned – 14, Ph.D. - 5)</b>					
	Sanctioned Nos.	Available Nos.	Qualification	Vacancy No.	Vacancy Nature
<b>Professor</b>	1	1	Ph.D. - 1	Nil	
<b>Associate Professor</b>	3	2	Ph.D. – 2	1	Permanent
<b>Assistant Professor</b>	10	9	Ph.D. – 2 M.Tech. - 7	1	Permanent
Adhoc faculty	1 (by DTE)	2	M.Tech. - 2		

<b>Applied Electronics Department (Sanctioned – 23, Ph.D. - 6)</b>					
	Sanctioned Nos.	Available Nos.	Qualification	Vacancy No.	Vacancy Nature
<b>Professor</b>	2	1	Ph.D. – 1	1	Permanent
<b>Associate Professor</b>	6	6	Ph.D. – 1 M.Tech. - 5	--	
<b>Assistant Professor</b>	15	14	Ph.D. – 4 M.Tech. – 10	1	Permanent
Adhoc faculty	8 (by DTE)	7	Ph.D. -1 M.Tech. - 6		
<b>Electrical and Electronics (Sanctioned - 3, Ph.D. - 1)</b>					
Associate Professor	1	1	M.Tech. – 1	---	
Assistant Professor	2	2	Ph.D. – 1 M. Tech. – 1	---	

<b>Applied Science Department (Sanctioned - 8, Ph.D. - 4)</b>					
	Sanctioned Nos.	Available Nos.	Qualification	Vacancy No.	Vacancy Nature
<b>Mathematics</b>	3	3	Ph.D. – 2 M.Phil - 1	0	
<b>Physics</b>	1	1	M.Phil. - 1	0	
<b>Chemistry</b>	3	3	Ph.D. – 2 M.Phil. - 1	0	
<b>Physical Education</b>	1	1	M.Phil.	0	
<b>Adhoc faculty</b>					

### B3. Review of actions taken on the decisions of 22<sup>nd</sup> BoG meeting

Space audit by external agency	Will be carried out when the Covid -19 pandemic situation improves
Planning for UG in Computer Science	Academic Council has approved the proposal to start B.Tech. in Computer Science. The main hurdle is with space availability.
Alternate location for the Institution	Proceeding, details furnished under item No. CIII
Student survey on – training needed for better future planning	<p><b>Summary of Survey conducted among students of AE&amp;I and ECE:</b></p> <p><b>Job:</b> 60% wish to get job in campus placement, 15% PSU, 12% higher studies and research, others – entrepreneurs, specific goals.</p> <p><b>Training requirement:</b> Coding skills – 81%, communication skills – 46%, aptitude – 39%</p> <p><b>Good in:</b> coding – 21%, communication – 48%, aptitude – 51%</p> <p><b>Other Expectations:</b> GATE coaching, career awareness programmes</p>
Academic counselling by third party	Will be done when the Covid -19 situation improves
Product club run by different batches of students	Will be done when regular classes resumes
Result analysis, Publications, Courses attended – Department wise details	Furnished

### B4. REPORTS ON ACTIVITIES

#### B4.1 Report on Admissions of Current Academic Year

UG students admitted: 331

Sl. No.	Branch	State Merit		OBC	No. of students Admitted	Strength
		First Rank	Last Rank	Last Rank		
1	AE & I	8738	46141	40405	63	69
2	Chemical	3647	16178	19379	67	69
3	Civil	7556	21431	19563	67	67
4	Electronics	4473	23410	41789	67	67
5	Mechanical	6295	34064	44855	67	67

**PG Students admitted: 48**

Sl. No.	Specialization	No. of students admitted	No. of GATE students	Vacancy
1	Signal Processing	18+1(QIP)	3	0
2	Computer Aided Process Design	12	0	6
3	Energy systems - Analysis and Design	17	1	1

**B4.2 Result analysis****BTECH 2016-2020 batch result (pass percentage as on 01/10/2020)**

No. of students : 305

No. of students with full pass : 193

Pass percentage : 63.27868852 (19<sup>th</sup> position)

**ACADEMIC PERFORMANCE INDEX (as on 01/10/2020)**

API: 5.04554078361 (Position: 17<sup>th</sup>)

**B.TECH HONOURS REPORT (AS ON 1/10/2020)**

No. of students eligible for HONOURS: 25 (Position: 16<sup>th</sup>)

**Pass Percentage of 2016 - 2020 batch**

Sl.No.	Branch	KTU Pass%	GECK Pass %	Number of Honours
1	Applied Electronics and Instrumentation Engineering	53.59	51.85	1
2	Chemical Engineering	58.06	67.15	13
3	Civil Engineering	50.06	84.8	NA
4	Mechanical Engineering	42.56	60.11	11
5	Electronics and Communication Engineering	53.05	68.25	NA



**KTU Result Analysis – Semester wise pass percentages**

Branch	Batch	S1	S2	S3	S4	S5	S6	S7	S8
<b>MECHANICAL</b>	19 - 23	73.77							
	18 - 22	71.66	73.00	40					
	17 - 21	91.80	86.89	71.64	55.22	50.75			
	16 - 20	96.67	90.00	73.91	63.24	60.29	96.67	64.18	98.50
	15 -19	98.36	98.33	92.42	86.36	87.69	86.15	78.13	78.13

Branch	Batch	S1	S2	S3	S4	S5	S6	S7	S8
<b>CHEMICAL</b>	19 - 23	88.7							
	18 - 22	89.3	80.4	46					
	17 - 21	90.3	80.0	73.5	66.2	81.5			
	16 - 20	95.83	93.75	77.78	81.48	77.78	75.93	79.25	94.34
	15 -19	98.2	94.5	85.2	93.4	91.8	80.3	83.6	93.4

Branch	Batch	S1	S2	S3	S4	S5	S6	S7	S8
<b>CIVIL</b>	19 - 23	85	NA						
	18 - 22	74.5	65.5	55	NA				
	17 - 21	87.9	94.8	77.6	68.7	77.61	NA		
	16 - 20	98.3	98.3	91.0	68.7	77.3	80.3	84.8	84.8
	15 -19	100.0	94.8	96.9	96.9	96.9	98.4	93.8	98.44

Branch	Batch	S1	S2	S3	S4	S5	S6	S7	S8
Applied Electronics & Instrumentation	19 - 23	38.09							
	18 - 22	77.42	75.41	22.39					
	17 - 21	81.3	76.2	45.6	22.8	37.04			
	16 - 20	93.75	95.83	59.26	77.78	70.37	64.81	85.19	96.3
	15 -19	86.2	96.5	76.1	92	79.3	85.7	84.1	93.6

Branch	Batch	S1	S2	S3	S4	S5	S6	S7	S8
Electronics and Communication	19 - 23	78.33							
	18 - 22	72.9	73.6	37.3					
	17 - 21	93.2	98.4	95.3	83.07	60.3			
	16 - 20	98.43	96.87	81.25	84.37	82.81	79.68	81.25	98.41
	15 -19	98.3	98.3	90.9	98.4	87.8	87.8	80.3	81.8

#### No. of Students Appeared/Qualified in GATE 2020

Programme	CE	ME	CH	AE&I	EC
No. appeared for GATE 2020	55	36	39	43	42
Qualified in GATE 2020	5	0	1	0	2

#### Results PG (2018 -2020 Batch)

Sl. No.	PG Program	Pass %
1	Computer Aided Process Design (Chemical Engineering)	88.24
2	Energy systems - Analysis and Design (Mechanical Engineering)	100 %
3	Signal Processing (Applied Electronics and Instrumentation Engineering)	94.12 %

### B 4.3 Placement and Higher Studies

Placement status for UG 2019-20 pass out batch  $\approx$  21.4 %

Program B.Tech.	Total no. of students	No. of students placed	No. of students joined for Higher studies	No. of students Qualified in GATE 2020
AE&I	55	6	2	0
Chemical	53	6	4	1
Civil	66	11	1	5
Electronics	63	19	7	2
Mechanical	67	07	2	0
<b>Total</b>	<b>304</b>	<b>49</b>	<b>16</b>	

Placement Details – PG (2018 – 2020 Batch)  $\approx$  19.6 %

Program M.Tech.	Total no. of students	No. of students employed	No. of students joined for Higher studies	No. of students Qualified in GATE 2020
Computer Aided Process Design (Chemical)	17	4	1	0
Energy Systems – Design and Analysis (Mechanical)	12	2	0	2
Signal Processing (AE&I)	17	1	1	0
<b>Total</b>	<b>46</b>	<b>7</b>	<b>2</b>	

### B4.4 Placement and training for students' 20-21 academic year

Placement status 2020-21

Tata Consultancy Services	75 students trained – 31 students qualified National Qualifier Test – Training for interview scheduled on 14-11- 2020 for qualified students
VVDN –for ECE/AEI	32 students appeared for exam 4 students shortlisted for interview
Opensilicon – AEI/ECE – internship / placement	85 students appeared for exam, No students qualified

Infosys, CTS, Q-Burst, Nethram LLC, VKC etc	Expected in Dec/ January
Talks for campus connect programs with BOSCH, VVDN	initiated

### Training programmes – status - 2020-21

CGPC has consulted its members – viz. Faculty members, Department coordinators, executive committee members and student managers to identify the training needs and appropriate trainers.

Sl.no.	Training and Trainer Details	Beneficiary details	Estimated expenses (Rs.) - <i>Exc. GST</i>	Remarks & / Status
1	Training for TCS - National Qualifier Test Insight Job Guru – Trivandrum – Iskew learning	Registered Final year students – <b>All branches</b> ≈ 75.	30000.00	8 days virtual training <b>Training Completed</b>
2	Training on interview skills & GD Job segura – Kozhikode	ALL Final year students – All branches ≈ 350	125000.00	3 days virtual training <b>Training Completed</b>
3	Pre-placement training On arithmetic , logical reasoning, resume preparation, quantitative ability, verbal & English usage Career Avenue - Trivandrum	ALL PRE-Final year students – All branches  ≈ 350	150000	30 hours virtual training – 4 batches <b>Training Ongoing for All branches / batches</b>
4	Pre-placement Orientation training – soft, technical & functional skills  Insight Job Guru – Trivandrum – Iskew learning	ALL SECOND YEAR students – All branches  ≈ 350	65000	3 days / 6 hours training <b>Virtual Training scheduled in December</b>

<b>5</b>	Training for M.Tech students  Python Programming, logical reasoning, quantitative aptitude, resume preparation, interview skills & GD  Insight Job Guru – Trivandrum	ALL FINAL YEAR M.Tech students – All branches  ≈ 35	75000.00	10 days / 24 hours training <b>On going</b>
<b>6</b>	Placement oriented C Programming - Training for Final S7 B.Tech students ≈75 Trainer Prof. Rashid Ummer	for Final S7 B.Tech students ≈75	2500 0.00	15 hours training <b>On going</b>

**Programs Conducted for the students (Meet our ALUMNI and Invited talks)**

S. No	Name of the resource person with designation	Date
1	Sachin Dev, MBA from IIM Rohtak (2012-16 batch B. Tech ME, GEC Kozhikode)	04-11-2020
2	Aman P.V. GATE All India Rank 10 (2008) M. Tech, IISC., Bangalore (2004-08 batch B. Tech ME, GEC Kozhikode)	12-10-2020
3	Dr. Anand Jacob Abraham Ph. D. IISC, Bangalore (2009-13 batch B. Tech ME, GEC Kozhikode)	21-10-2020
4	Pradesh S.S. M. Tech, NIT Calicut (2006-10 batch B. Tech ME, GEC Kozhikode)	01-08-2020
5	Arjun M.S. MBA, NITIE Mumbai (2009-13 batch B. Tech ME, GEC Kozhikode)	19-07-2020
6	Shafana M.M. (2001-05 batch B. Tech ME, GEC Kozhikode)	03-10-2020
7	Shyn C.S (2001-05 batch B. Tech ME, GEC Kozhikode)	19-09-2020
8	Ciju Silva Christy (2004-08 batch B. Tech ME, GEC Kozhikode)	20-11-2020
9	Dr. Rijo Jacob Thomas Placement officer , TKM Kollam	11-11-2020
10	Sreenivas V.S. (2007-11 batch B. Tech ME, GEC Kozhikode)	11-11-2020

## B4.5 Faculty Publications from Feb 2020

Department: **Mechanical Engineering**

<b>Sl No</b>	<b>Title of the paper</b>	<b>Name of Faculty</b>	<b>Journals</b>
1	Development of a solar energy based desalination system using a hyperboloid concentrator	Dr. Pradeep V.	Journal - Material Today:Proceedings (Elsevier sc.) ACCEPTED on 20.9.2020- Article in press. impact factor 1.3 <a href="https://doi.org/10.1016/j.matpr.2020.09.555">https://doi.org/10.1016/j.matpr.2020.09.555</a>
2	Forced Convective Fluid Flow and Flow Boiling of Water in a Single Rectangular Microchannel with Lower Aspect Ratio	Dr.Jesseela S	Journal of Mechanical Science and Technology (Springer) impact factor 1.46, under review
3	Plasma gasification performances of various raw and torrefied biomass materials using different gasifying agents, Bioresource Technology, Volume 314, 2020.	Biju I K	Bioresource Technology, Volume 314, 2020, 123740, ISSN 0960-8524, <a href="https://doi.org/10.1016/j.biortech.2020.123740">https://doi.org/10.1016/j.biortech.2020.123740</a> . Impact factor:8.3
4	Numerical Study on Optimizing the Geometrical Configuration of a Solar Desalination System for Enhancing Yield,	Dr. Jithesh P K	International Conference on Green Energy for Environmental Sustainability - ICGEES 2020, National Institute of Technology Calicut, Kozhikode, Kerala, India, 5-6th August 2020.
5	Solar Desalination using Modified Parabolic Trough Concentrator	Dr.Sreejith B	Green Buildings and Sustainable Engineering, Springer Transactions in Civil and Environmental Engineering, DOI:10.1177/978-981-15-1063-2_20. Chapter 20, 257 - 271, 2020, 06 Feb2020
6	Workplace-based assessment and intervention design for waste sorting tasks	Francis J Emmatty	International Journal of Industrial Ergonomics, Under review
			<b>Conferences</b>
7	Posture based Assessment of Plogging Activity	Francis J Emmatty	In 2020 IEEE International Conference on System, Computation, Automation and Networking, Manakula Vinayagar Institute of Technology, Pondicherry, March 27-28,2020
8	Numerical analysis of the airflow and temperature distribution in a mixed mode solar greenhouse dryer	Dr. Saijal K K	International Conference on Green Energy for Environmental Sustainability (ICGEES 2020), August 5-6, 2020, NIT Kozhikode
9	Improvement in efficiency of direct absorption solar	Dr.Sajeed A M	International Conference on Sustainable Technology Applications for Green

	collector with waste heat recovery system using Al <sub>2</sub> O <sub>3</sub> / Water nanofluid	& Dr. Shaji K	engineering Applications (STAGE 2020), July 17 - 18, 2020, Palakkad. ISBN: 978-93-5406-794-5, Volume-I, Issue-I, Page No. E6
10	Numerical analysis of interrupted micro-channel heat exchanger with triangular ribs on the side walls	Dr. Sajeeb A M	International Conference on Sustainable Technology Applications for Green engineering Applications (STAGE 2020), July 17 - 18, 2020, Palakkad. ISBN: 978-93-5406-794-5, Volume-I, Issue-I, Page No. E10
11	Investigation on the development of an environment-friendly vegetable oil based lubricant- Mustard oil	Dr. Sajeeb A M	International Conference on Green Energy for Environmental Sustainability (ICGEES 2020), August 5-6, 2020, NIT Kozhikode,
12	Blend of extracts of Hibiscus flowers and used cooking oil as bio - lubricant	Dr. Saijal K K & Dr. Sajeeb A M	Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility (ADMMS), July 24 - 25, 2020, Chennai
13	Experimental and CFD analysis of horizontal hot water storage tank combining evacuated tube collectors (ETC) with heat pipes	Dr. Shaji K	International Conference on Sustainable Technology Applications for Green engineering Applications (STAGE 2020), July 17 - 18, 2020, Palakkad. ISBN: 978-93-5406-794-5, Volume-I, Issue-I, Page No. E5
14	3D modeling and experiment on the performance of asphalt solar collector with chimney	Dr. Shaji K	International Conference on Sustainable Technology Applications for Green engineering Applications (STAGE 2020), July 17 - 18, 2020, Palakkad. ISBN: 978-93-5406-794-5, Volume-I, Issue-I, Page No. E3
15	Reduction in frictional power and fuel consumption of gasoline engine using vegetable oil based CeO <sub>2</sub> /CuO hybrid nano-lubricant	Dr. Sajeeb A M	International Journal of Engine research- Under review
16	Lubrication Effectiveness of Eco-friendly Hybrid Nano-lubricant from Blend of Vegetable oils	Dr. Sajeeb A M	Applied nanoscience- Under review

Department: **Chemical Engineering**

<i>Sl No</i>	<b>Title of the paper</b>	<b>Name of Faculty</b>	<b>Conferences</b>
1	Pesticide removal from wastewater using flyash derived reduced grapheneoxide zeolite nanocomposite	Dr. Fasnabi P A	International conference on Blends, Composites, Bio composites and Nanocomposites (ICNC 2020), MG university

2	Kinetic study and mass transfer characteristics of CO <sub>2</sub> absorption in sodium hydroxide solution using wetted wall column	Adil Muhammed	Virtual International Conference on Advanced Technologies and Research in Mechanical Engineering (VICATRME'20), MEA Engineering College, Malappuram, Kerala
---	---	---------------	---

Department: **Civil Engineering**

<i>Sl No</i>	<b>Title of the paper</b>	<b>Name of Faculty</b>	<b>Journals</b>
1	Flexural strengthening of RCC Beam using FRPs and Ferrocement a comparative study	N Ganesan, P Bindurani, PV Indira	Advances in concrete construction
2	Mode choice of food transport considering heterogeneity among shippers using latent class analysis	Ansu V and MVL R Anjaneyulu	European transport (Impact factor 0.22 )
3	Partial replacement of cement by glass and sea shell powder in concrete	Dilna RD, Bhagya Sree Raj, Anjana Santhakumar	International Research Journal of Engineering and Technology
4	Mixing data for multivariate statistical study of ground water quality	PG Dileep Kumar, Narayanan C Viswanath, Sobha Cyrus, Benny Mathews Abraham	Environmental monitoring and assessment, Springer (Impact factor 1.92 )

Department: **Applied Electronics and Instrumentation Engineering**

<i>Sl No</i>	<b>Title of the paper</b>	<b>Name of Faculty</b>	<b>Journals</b>
1	Implementation of an efficient FPGA architecture for capsule endoscopy processor core using hyper analytic wavelet-based image compression technique	Abdul Jaleel. N	Int. J. Data Analysis Techniques and Strategies, Vol. 12, No. 3, 2020
2	Noise robust image clustering based on reweighted low rank tensor approximation and l1 l2 regularization	Baburaj Madathil, Sudhish N George	Springer Signal, Image and Video Processing (2020) Impact factor: 1.794



3	A Unified Tensor Framework for Clustering and Simultaneous Reconstruction of Incomplete Imaging Data	J Francis, SN Baburaj Madathil, George	ACM Transactions on Multimedia Computing, Communications, and Applications , Impact factor: 3.27
4	Multi-frame image super resolution using spatially weighted total variation regularisations	<u>Abdu Rahiman V and Sudhish N. George</u>	IET Image Processing, Impact factor: 2.61
5	Distance Metric learnt Kernal-based music classification using timbral descriptors	Dr. Shajee Mohan B S and Dr. Rajeev Rajan	ISMIR-2021 (Communicated)
			<b>Conferences</b>
6	Music Genre Classification using Sprctrograms	Dr. Shajee Mohan B S and Nirmal (M.Tech Student)	International Conference on Emerging Trends in Engineering Science and Technology (ICETEST2020)-GEC Trissur
7	Performance Analysis of Pre-trained Deep Learning Networks for Brain Tumor Categorization	Ahammed Muneer K V and A P Rahmathunneesa( M.Tech student)	9th IEEE International Conference on Advanced Computer Control, ICACC (Nov 2019), RSET Kochi. Published online on 10th Feb 2020.

### Applied Science Department

Sl No	Title of the paper	Name of Faculty	Journal/conference
1	Transition between [R]and [S]stereo isomers without bond breaking.	Dr. Rojisha VC	Physical Chemistry Chemical Physics( Impact Factor: 3.430)
2.	Nature of C- N Bond in N-hetrocyclic carbene.	Dr. Rojisha VC	Accepted for publication in Chemical Physical Letters. (Impact Factor: 2. 029)-Elsevier
3	On 2-generated c-spaces	<i>Santhosh P. K., N. M. Madhavan Nampoothiri, &amp; P. N. Jayaprasad</i>	Malaya Journal of Mathematics (UGC Care List Journal)
4	Transit index of a graph and its correlation with MON of octane isomers	K. M. Reshmi and R. Pilakkat	Advances in Mathematics: Scientific Journal
5	Transit index of various graph classes	K. M. Reshmi and Raji Pilakkat	Malaya Journal of Mathematic( UGC Care List Journal)

## B4.6 Training Programmes attended by Faculty

### Mechanical

Sl. No.	Name of faculty/Staff	Course attended	Institution	Used 4 Funds or not
1	Dr. Pradeep V	Engine Combustion and Emission Diagnostics, 5-9 Oct. 2020	NIT Agartala	NO
2	Dr. Pradeep V	Bio-Energy: Technologies & Transitions 13-17 May 2020	NIT Kurukshetra	NO
3	Dr. Pradeep V	Thermal Energy storage for effective energy management 10-14 Feb 2020	IIT Kanpur	YES
4	Dr. Pradeep V	CFD for solving Engineering Problems	MNIT Jaipur	NO
5	Dr. Pradeep V	Air Delivery Systems and Indoor Environment Quality 2-7 March 2020	IIT Madras	NO
6	Dr. Pradeep V	Goods and Services Taxes - 7 May 2020	ICT academy - TCS iON - MOOC	NO
7	Dr. Sandhya M	Programming for Everybody (Getting started with Python) - 28 May 2020	University of MICHIGAN- Coursera	NO
8	Dr. Sandhya M	The Science of Well-Being- 27 Aug 2020	Yale University- Coursera	NO
9	Prajeeth Kumar. K. P.	A Two- day Workshop on Data Analysis Using Statistical Packages, 29.06.2020 and 30.06.2020 (2 days) (ONLINE)	Saranathan College of Engineering, Trichy	NO
10	Prajeeth Kumar. K. P.	Hybrid Manufacturing Processes: Opportunities and Challenges, 06 - 10 July, 2020 (5 days) (ONLINE)	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	NO
11	Prajeeth Kumar. K. P.	Advances in Materials Engineering and Sustainable	Federal Institute of Science and	NO

		Manufacturing, 10-14 August 2020 (5 days) (ONLINE)	Technology (FISAT)	
12	Prajeeth Kumar. K. P.	Short Term Course on ADDITIVE AND SMART MANUFACTURING held during September 7 - 11, 2020 (Online mode)	Department of Production Engineering, National Institute of Technology, Tiruchirappalli	YES
13	Prajeeth Kumar. K. P.	Advanced Machining Processes, By Prof. Manas Das, IIT Guwahati, 14 Sep 2020 -06 Nov 2020 (8 Weeks)	SWAYAM Course (AICTE approved FDP course)	NO
14	Biju I K	Mind of Building - Automation, E- Vehicles & Energy Conservation. (03 - 06 Sep'20)	Govt. Engineering College, Idukki	No
15	Biju I K	Co2oling the Earth summer school II: Focus on Bio-CCU (29thSeptember - 1st October 2020)	National Technical University of Athens	No
16	Biju I K	Modeling and Simulation of Energy Systems. (19/10/2020 – 23/10/2020)	Indian Institute of Technology (IIT) Roorkee	No
17	Ashita K B	Recent Trends in Hybrid and Electric Vehicle Technologies (RTHEVT-2020) (6 - 11th, July 2020.)	Maharaj Vijayaram Gajapathi Raj College of Engineering (A) Vizianagaram, Andhra Pradesh	NO
18	Ashita K B	Hybrid Manufacturing Processes: Opportunities and Challenges, 06 - 10 July, 2020 (5 days) (ONLINE)	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	NO
19	Dr,Sajith Babu C	AICTE Sponsored one week STTP on Recent Advances in Materials and Manufacturing, 07-12 Sep 2020 (ONLINE)	DEPT. OF MECH. ENGG., VPCE VISHAKAPATA NAM	NO

20	Dr,Sajith Babu C	One week FDP on Recent Developments in Mechanical Engg., 10-14 Aug 2020 (ONLINE)	DEPT. OF MECH. ENGG., PVPSIT, VIJAYAWADA	NO
21	Dr,Sajith Babu C	SPARC Sponsored one week workshop on Recent Additive Manufacturing, 02-07 Nov 2020 (ONLINE)	DEPT. OF MME., NIT, TRICHY	NO
22	Dr.Manu V Thottackkad	Nano Tribology,Biotribology, Space tribology	Saintgits College of Engineering Kottayam	NO

### Chemical Engineering

Sl. No.	Name of faculty/Staff	Course attended	Institution	Used 4 Funds or not
1	Gigi Sebastian	Digital Transformation in Teaching Learning Process	Swayam (TEQIP online Certification)	No
		Introduction to Psychology	Coursera	No
		Municipal Solid Waste Management in Developing Countries		
		Nanotechnology - A Makers's Course		
		Nanotechnology and Nanosensors Part I		
		Nanotechnology and Nanosensors Part II		
		Oil and Gas Industry Operations and Markets	TKM College of Engineering, Kollam	No
Novel Prospectives for Electrochemical Processes for Chemical and Environmental Engineering				
2	Ushakumary E R	Digital Transformation in Teaching Learning Process	Swayam (TEQIP online Certification)	No
3	Fasnabi P A	Safety in the Utility Industry	Coursera	NO
		Organic Solar cells - Theory and practice		
		Natural gas		
		Electric Power Systems		
		Energy- The Enterprise		
		Introduction to Household Water Treatment and Safe storage		
		Introduction to Climate Change and Health		
		Finding Purpose and Meaning in Life:Living for what Matters most		
		A life of Happiness and Fulfillment		
		Fostering an effective Research	St.Joseph's	NO

		Environment and Industrial collaborations in Engineering Institutions	College of Engineering, Chennai	
		Novel prospectives for electrochemical processes for chemical and environmental engineering	TKM College of Engineering	No
		Process Instrumentation and Automatic Control	CUSAT	No
		Student Psychology	NITTR	No-ongoing
		Guidance and Counselling	NITTR	No-ongoing
		Technologies for Clean and Renewable Energy Production	NPTEL	No-ongoing
4	Manoj N.	Oil & Gas Industry operations and Markets	Duke University Coursera.	No
		NLFDP on Research Initiatives in Renewable Energy systems.	Dept.of Electrical and Electronics, Muthoot Institute of Technology & Science.	No
		STTP on Sustainable design of Chemical Process plants by Using ASPEN PLUS and ASPEN HYSYS Simulation tools.	Centre for Disaster Mitigation and Management, Vellore Institute of Technology.	No
		TEQIP sponsored FDP on Novel perspectives in electrochemical processes for chemical and environmental engineering.	Dept.of Chemical Engineering, TKM college of engineering, Kollam	No
5	Haseena P V	Novel Prospectives for Electrochemical Processes for Chemical and Environmental Engineering.	TKM College of Engineering	No
6	Sajitha C.M.	Novel Prospectives for Electrochemical Processes for Chemical and Environmental Engineering.	TKM College of Engineering	No
		Webinar(3 Days) On Safety Challenges In Oil and Gas Industries	TKM College of Engineering	No
7	Suji S K	Municipal Solid Waste Management In Developing Countries	Coursera	No
		Safety In The Utility Industry		
		Novel Prospectives For Electrochemical Processes For Chemical And Environmental Engineering	TKM College of Engineering	No
8	Shyja M	Materials Science: 10 Things Every Engineer Should Know	Coursera	No
		Scilab	Baba Institute of	No

			Technology & Sciences in coordination with IIT Bombay	
		Novel prospectives for electrochemical processes for chemical and environmental engineering	TKM College of Engineering	No
9	Aparna A M	Methods of Surface Analysis	Coursera	No
		Virtual Labs: Hands-On Workshop for Faculty of all Engineering Disciplines	PVG's COET VLabs Regional Nodal Centre & AISSMS COE VLabs Nodal Centre, in Coordination with Savitribai Phule Pune University (SPPU) (BoS-E & TC) and Virtual Labs - IIT Bombay	No
		One week FDP on Moodle Learning Management System	SRIDEVI WOMEN'S ENGINEERING COLLEGE in association with Spoken Tutorial, IIT-Bombay.	No
		2-Day Workshop on Aligning Yourself to the Publishing Process	Elsevier	No
		Sttp on "Fostering an effective research environment and industrial collaborations in engineering education" phase - 1	St. Joseph's College of Engineering	No
		Sttp on "Fostering an effective research environment and industrial collaborations in engineering education" phase - 2	St. Joseph's College of Engineering	No
		Sttp on "Fostering an effective research environment and industrial collaborations in engineering education" phase - 3	St. Joseph's College of Engineering	No
		FDP on Novel Perspectives in Electrochemical Processes for Chemical and Environmental Engineering	TKM College of Engineering	No
		Webinar on Evolving and aligning teaching-learning process for implementing engineering curriculum	NITTR	No
		10	Adil Muhammed	Sttp on "Fostering an effective research environment and industrial collaborations in engineering education"

**Department: Civil Engineering**

<b>Sl. No.</b>	<b>Name of faculty/Staff</b>	<b>Course attended</b>	<b>Institution</b>	<b>Used 4 Funds or not</b>
1	Dr Sreela PK	5 days international work shop on Modern trends in transportation systems	NIT SILCHAR	NO
2	Dr Sreela PK	recent advancement in pavement engineering and materials	MNM jain Engg college	NO
3	Dr Sreela PK	Bridging the gap- theory and Practices in pavement engineering	Saintgits College of engineering	NO
4	Dr Sreela PK	STTP on Emerging Trends and Practices in Pavement Geotechnics	TKM College of Engineering, Kollam	NO
5	Dr Sreela PK	Urban Mobility challenges and opportunities	TKM College of Engineering, Kollam	NO
6	Dr. K. M. Kouzer	1st Indo-Japan Webinar Series on Geotechnics for Disaster Mitigation	IIT Tirupati & Kyushu University, Japan	NO
7	Dr. K. M. Kouzer	International Webinar on Ground Improvement Techniques for Highway Construction	CSIR-Central Road Research Institute, New Delhi	NO
8	Dr. K. M. Kouzer	Short Course on Reinforced Soil Structures : Design Methods, Issues and Innovations	IIT Hyderabad & JNTUH College of Engg, Hyderabad	NO
9	Dr. K. M. Kouzer	Webinar on Challenges and Opportunities in Geotechnical Engineering	IGS Hyderabad	NO
10	Dr. K. M. Kouzer	STTP on Civil Engineering : Today and Tomorrow	NSS College of Engg., Palghat	NO
11	Dr. K. M. Kouzer	STTP on Emerging Trends and Practices in Pavement Geotechnics	TKM College of Engineering, Kollam	NO
12	Dr. K. M. Kouzer	Indo-Canadian Workshop on Interactive Design in Geotechnical Engineering : Theory to Practice	IIT Kanpur & University of Ottawa, Canada	NO
13	Rahmathulla	Civil Engineering Today and	NSS	NO

	Noufal E	Tomorrow	Engineering college Palgat	
14	Rahmathulla Noufal E	Recent Research Advances In Geotechnical and Geological Engineering	Rajagiri college of Engineering, Ernakulam	NO
15	Rahmathulla Noufal E	Bridge The Gap:Theory and Practices In Pavement Engineering	Saint Gits college of Engineering Kottayam	NO
16	Rahmathulla Noufal E	Emerging Trends and Practices in Pavement Geotechnics	TKM College of Engineering, Kollam	NO
17	Rahmathulla Noufal E	Urban Mobility Challenges and Opportunities	TKM College of Engineering, Kollam	NO
18	Rahmathulla Noufal E	Modern Materials and Structural Systems for Resilient and Sustainable Infrastructures	TKM College of Engineering, Kollam	NO
19	RAJI KARUNA	Seminar on AICTE Quality Initiatives , NITTT & NEAT	Kerala State C-apt at FISAT Angamaly, Kerala	NO
20	RAJI KARUNA	Online FDP on "Sustainability Engg.	Gaya College of Engineering, Gaya, Bihar	NO
21	RAJI KARUNA	Online FDP on “Bridging the Gap: Theory and Practices in Pavement Engineering”	Saintgits College of Engineering Kottayam	NO
22	RAJI KARUNA	Online FDP on “ Emerging Trends and Practices in Pavement Geotechnics”	TKM College of Engineering, Kollam	NO
23	RAJI KARUNA	Online FDP on ‘Urban Mobility: Challenges and Opportunities’	TKM College of Engineering, Kollam	NO
24	RAJI KARUNA	Online FDP on Waste Technology	Giani Zail Singh Campus College of Engineering & Technology, MRSPTU,	NO



			Punjab	
25	NASMA NOOR N V	Mechanics of Materials I: Fundamentals of Stress & Strain and Axial Loading	Georgia Institute of Technology	
26	SHYBA A	Teaching Effectiveness - FDP	Teaching Learning Centre,IIT Madras	NO
27	SHYBA A	The Art of Teaching and Learning Engineering Graphics - FDP	NIT Calicut	NO
29	SHYBA A	Application of Remote Sensing and Applications in Civil Engineering	Silicon Institute Of Technology Sambalpur	NO
30	SHYBA A	Sustainability Engineering	Mangalore Institute Of Technology & Engineering	NO
31	SHYBA A	Waste Technology	Manipal University Jaipur	NO
32	Bindurani P.	Forensics in Civil Engineering	Sree Budha College of Engineering, Pattoor	NO
33	Bindurani P.	Theory and Practices of Steel Structure Design	Saint Gits College of Engineering, Kottayam	Rs. 300, NO
34	Dr. Raghu Kumar C	Bridge Engineering: Design, Execution, Maintenance & Rehabilitation	Sinhgad College of Engineering, PUNE	NO
35	Dr. Raghu Kumar C	Artificial Intelligence - The Future Of Construction	Indian Institute of Infrastructure & Construction (IIC), Kollam	Rs. 1000 NO

36	NASMA NOOR N V	Smart Civil Engineering Practices To Meet The Contemporary Issues	NSS Engineering college Palghat	NO
37	NASMA NOOR N V	Short Term Training Program On Mathematical Modelling In Civilengineering	SCMS School of Engineering and Technology	Rs. 300 (will be claimed)
38	NASMA NOOR N V	Theory And Practices Of Steel Structure Design	Saint Gits College of Engineering, Kottayam	Rs. 300 (will be claimed)
39	Ansu V	Bridging The Gap: Theory And Practices In Pavement Engineering	Saintgits college of engineering	NO
40	Ansu V	Urban Mobility: Challenges And Opportunities	TKM Kollam	NO
41	SHYBA A	SWAYAM COURSE - Module 1: Orientation Towards Technical Education And Curriculum Aspects	NITTT	1000 (ongoing will be claimed)
42	SHYBA A	SWAYAM COURSE - Module 2: Professional Ethics and Sustainability	NITTT	1000 (ongoing will be claimed)
43	SHYBA A	SWAYAM COURSE - Module 3: Communication Skills and Knowledge Dissemination.	NITTT	1000 (ongoing will be claimed)
44	SHYBA A	SWAYAM COURSE - Module 4: Instructional Planning And Delivery.	NITTT	1000 (ongoing will be claimed)
45	SHYBA A	SWAYAM COURSE - Module 5: Technology Enabled Learning and Life-long self-learning.	NITTT	1000 (ongoing will be claimed)
46	SHYBA A	Programming for Everybody (Getting Started with Python)	University of Michigan	
47	NASMA NOOR N V	SWAYAM COURSE - Module 1: Orientation towards technical education	NITTT	1000 (ongoing will be claimed)

		and curriculam aspects		
48	NASMA NOOR N V	SWAYAM COURSE - Module 2: Professional Ethics and sustainability	NITTT	1000 (ongoing will be claimed)
49	NASMA NOOR N V	SWAYAM COURSE - Module 3: Communication Skills and Knowledge Dissemination.	NITTT	1000 (ongoing will be claimed)
50	NASMA NOOR N V	SWAYAM COURSE - Module 4: Instructional Planning and Delivery.	NITTT	1000 (ongoing will be claimed)
51	RAJI KARUNA	SWAYAM COURSE - Module 1: Orientation towards technical education and curriculam aspects	NITTT	1000 (ongoing will be claimed)
52	RAJI KARUNA	SWAYAM COURSE - Module 2: Professional Ethics and sustainability	NITTT	1000 (ongoing will be claimed)
53	RAJI KARUNA	SWAYAM COURSE - Module 3: Communication Skills and Knowledge Dissemination.	NITTT	1000 (ongoing will be claimed)

**Department: Applied Electronics and Instrumentation**

Sl. No.	Name of faculty/Staff	Course attended	Institution	Used 4 Funds or not
1	Rashid Ummer NT	FDP on Recent advances in communication and networking	GEC Idukki	NO
2	Aswathy G	FDP on Recent advances in communication and networking	GEC Idukki	NO
		How to turn engineers into entrepreneurs	MBITS	NO
		Communicative English Skills for Students and Faculty	MBITS	NO
		Role of Civil Engineers for	MBITS	NO

		Sustainable Development		
3	Dr. Shajee Mohan B S	AICTE STTP on Computer Networking 24-29th August 2020	Bharati Vidyapeeth Deemed University Pune	NO
4	Jithesh C P	MOOC on Digital VLSI Testing	NPTEL	NO
5	Dr. Bindima T	Neural Networks and Deep Learning	Coursera	NO
		STTP on Image Forensics	CUSAT	Submitted
		AI for IOT	Edgate TI University Program	NO
		IOT and Data Science	Entuple technologies & IEEE Malabar subsection	Submitted
6	Dr.Saritha M	Digital Transformation in Teaching Learning Process	TEQIP online certification	NO
7	Dr.Baburaj M	STTP on Image Forensics	CUSAT	NO
8	Dr.Abdu Rahiman V	Build a Google Firebase Web Application	Coursera	NO
		How Google does Machine Learning	Coursera	NO
9	Dr.Tara Raveendran	Deep Learning Specialization	Coursera	NO

### Applied Science Department

Sl. No.	Name of faculty/Staff	Course attended	Institution	Used 4 Funds or not
1	Dr. Rojisha VC	International Conference on Recent trends in Catalysis	NIT Calicut	Yes
2	Dr. Rojisha VC	Refresher Course in Chemistry for Higher Education	SWAYAM	No
3	Sri. Sayeed	International Conference on Recent trends in Catalysis	NIT Calicut	Yes
4	Sri. Sayeed	Refresher Course in Chemistry for Higher Education	SWAYAM	No

5	Dr. Deepesh KP	Preparing for Everybody: Getting started with Python	University of Michigan	No
6	Dr. Deepesh KP	Python Data structures	University of Michigan	No
7	Dr. Deepesh KP	Mathematics for Machine Learning	Imperial College London	No

#### B4.7 Major Achievements

- Government sanction obtained for finding new location for the Institute.
- Administrative sanction for CCF cum Library block. (Estimate: 10 crores)
- One MODROB project for twenty lakhs is sanctioned to Chemical Engineering Department. (Coordinator – Dr. Ushakumary E R)

#### B5. 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.

Account Name	Amount on 01/11/2017	Total Expenditure	Balance as on 30/11/2020	Expenditure during Feb to Nov 2020
<b>Corpus Fund</b>	34,14,885	13,35,147	2079738	472084
<b>Faculty Development fund</b>	33,29,881	5,94,372	2735509	184549
<b>Equipment Replacement fund</b>	31,94,497	2,50,486	2944011	146574
<b>Maintenance Fund</b>	32,05,394	3,95,603	2809792	6370
<b>Total</b>	1,31,44,657	25,75,608	1,05,69,050	8,09,577

As on now, the processing completed expenditure is 19.6 % .

#### Department wise Expenditure from four funds as on 30.11.2020

Department	Corpus fund		FSD fund		ERF		EMF	
	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure
AE& I	565000	128951	665975	132409	639000	0	641075	29469
Chemical	465000	205050	665975	136708	639000	6500	641075	99032

Civil	465000	59423	665975	76652	639000	0	641075	108750
Mechanical	465000	120115	665975	145077	639000	0	641075	108970
Institution	1254752	821608	665975	103526	639000	243986	641075	49382

**Ratification of Expenses from Four Funds** (completed processing)  
during the period 04.02.2020 to 30.11.2020

Sl No	Item Description	Amount
<b>1. Corpus fund</b>		
1	Salary of staff (5/02/2020 to 30/11/2020)	164750
2	GATE Coaching 2020	26704
3	Student (& Faculty) conferences	13785
4	Pre-placement training for students	193622
5	Student research projects	Nil
6	BOG meeting	63369
7	Petty cash	3814
8	Others	6040
	<b>Total</b>	<b>472084</b>
<b>2. Faculty Staff Development Fund</b>		
1	Out station training attended y faculty	<b>169419</b>
2	PhD /IEEE fee	<b>15130</b>
	<b>Total</b>	<b>184549</b>
	<b>3. Equipment maintenance fund</b>	<b>146574</b>
	<b>4. Equipment replacement fund</b>	<b>6370</b>
	<b>Total</b>	<b>8,09,577</b>

The detailed expenditure is furnished in Appendix II

**Files under processing (Work completed and Bills Submitted)**

Sl. No	Item Description	Amount
<b>1. Corpus Fund</b>		
1	Training programmes for students	107790
2	Conference/workshops by students	45863

3	GATE coaching	29400
	<b>Total</b>	<b>183053</b>
<b>2. Faculty Staff Development Fund</b>		
1	Out station training attended y faculty	<b>74437</b>
2	Expert talks	<b>11367</b>
	<b>Total</b>	<b>85804</b>
<b>3. Equipment maintenance fund</b>		<b>3600</b>
<b>4. Equipment replacement fund</b>		<b>0</b>
	<b>Total</b>	<b>2,72,457</b>

The detailed expenditure is furnished in Appendix II

#### Files under processing (at quotation stage)

<b>Equipment maintenance fund</b>	<b>252300</b>
<b>Equipment replacement fund</b>	<b>316259</b>
<b>Total</b>	<b>5,68,559</b>

The detailed expenditure is furnished in Appendix II

## B6. REPORT ON PURCHASE

The major purchases/repairs (cost above Rs.15000/-) done under the heads replacements and maintenance of equipments, during February 2020 to November 2020 are furnished below.

Sl. No	Name of the Item	Department	Amount	Status of Bill
1	Reinstallation and Upgradation of Staad software in 10 computers	Civil Engg.	94400	Completed processing
2	Computer	Institution (TEQIP Office)	41259	Under processing
3	Replacement of Chlorine and calibration standard	Chemical Engg.	99000	
4	Replacement of Window (FTIR)	Chemical Engg.	30000	
5	Replacement of 5 kVA UPS battery	AE&I Engg.	87000	
6	Replacement of 7.5 kVA Battery	Chemical Engg.	40660	
7	Repair of UTM	Civil Engineering	47200	
8	Refilling high purity helium gas	Chemical Engg.	35000	

9	Repair of 30kVA UPS	AE&I Engg.	90000	
10	Repair of 30kVA (UPS) batteries	AE&I Engg.	60000	

## **B7. REPORT ON INTERNATIONAL CONFERENCE**

### **Yukthi 2021 - International Conference on Emerging Trends in Engineering**

Conference Coordinator: Dr. Shajee Mohan B S

Yukthi 2021 – The international Conference in Emerging Trends in Engineering is an attempt to further explore the avenues in technology through conducting world class events such as paper presentations, panel discussions, webinars etc. Yukthi 2021 provides a venue for the confluence of latest ideas, thoughts and innovations of talented minds from the whole world. The International conference will be conducted in July 2021 using online methods.

Yukthi 2021 has the following department Tracks:

- AE&I: International Conference on Emerging Trends in Signal Processing
- CE: International Conference on Smart Solution for Sustainable Infrastructure
- CH: International Conference on Process Engineering and Sustainable Technologies-STEP
- ME: International Conference on Mechanical Engineering and Energy Technologies - URJA 2021

**Proposed Conference Dates : July 2021**

The Budget for the International conference is estimated as follows:

<b>SI No</b>	<b>Item /Description</b>	<b>Approximate Expenditure in Rs</b>	<b>Approximate Income expected</b>
1	Publication of conference proceedings by a reputed publishing house	2,50,000.00	
2	Department expenditure towards documentation remuneration for speakers, chairing, key note speakers etc.	25000*4= 100000.00	
3	Website hosting and Conference Management System expenses	20,000.00	
4	Expenses for the Institute level module (Remuneration for key note speakers, chair etc), documentation, Brochure etc	30,000.00	
5	Conference Registration fee + Publication fee collected form delegates		@ Rs.250 for registration + Rs. 1000 for



		publication charges= 100000.00
<b>Total</b>	<b>4,00,000.00</b>	<b>1,00,000.00</b>

Sponsorship requested from TEQIP II funds: **Rupees Three Lakhs.**

### Part C

#### C1. NEW PROPOSALS

##### C1.1. Institution Level Expenses

###### i. Placement Training: Rs.555000.00

Placement training proposed for the academic year 2020-2021 is furnished in section B4.4. Part of the expenses is requested from TEQIP II funds.

###### ii. International Conference: Rs.300000.00

Yukthi 2021 – The international Conference in Emerging Trends in Engineering is proposed to be held in July 2021, as detailed under section B7.

###### iii. Applied Science Department

SL. No.	Name of Equipment	Package No.	Present status	Amount for replacement
1	Desktop Computer	TEQUIPII/KL/KLIG02/BB/1374	Not Working	Rs.60000.00
2	THOSHIBA LAPTOP	TEQUIPII/KL/KL1G02/52/1403	Key pad and touchpad are mal functioning.	Rs.7000.00 (from EMF)

iv. Replacement of Printer in TEQIP office: Rs.25000/-

v. Remedial class on Mathematics for lateral entry students (30 hours): Rs.18000/-

##### C1.2. Civil Engineering Department

1. Expenditure from Corpus fund: Rs.99,181.00						
Program	Organizer	Amount	No, of students S3	No, of students S5	No, of students S7	Amount
Online Industrial Visit – A Virtual Experience of Civil Engineering	Saleem group		70 students			35000
12 week course- The joy of	NPTEL	1000	Nil	2	Nil	2000

computing using Python Akshaya S Zeba Fathima						
Online courses	NPTEL		Nil	Nil	28	60681
Expert talk on <b>Universal Human Values</b> by Dr. Mohammed P Rafeekh, for S1 students						1500
<b>Total</b>						<b>99181</b>

2. Expenditure from FSD fund: Rs. 135750.00		
<b>PROGRAM</b>	<b>No. of faculties / Names</b>	<b>Amount</b>
1.Swayam Course	1. Shyba A	12000
	2. Nasma Noor N V	
	3. Raji Karuna	
<b>2. ISTE Membership</b>	9 Faculty members	33750
<b>3. FDPs Proposed under TEQIP</b> i. 3 days - Choice modelling and its applications, Pavement evaluation and quality, Non-destructive testing on concrete structures ii. 5 days - Data analysis Techniques for applied research		90000
<b>Total</b>		<b>135750</b>

3. Expenditure from 3days: Rs.20000/- : Rs.45000/-		
<b>Item</b>	<b>Present status</b>	<b>Amount</b>
Printer Panasonic 3 nos. TEQIP II/KL/KL1G02/59	Not working	45000.00

### **C1.3. Mechanical Engineering**

#### **AICTE QUALITY IMPROVEMENT SCHME (AQIS) 2020-2021**

BOG approval requested for applying for recognition of QIP Centre in Department of Mechanical Engineering under AQIS scheme

<b>Proposals for replacement of items: Rs.5,11,000.00</b>
---

SL. No.	Name of Equipment	Package No.	Present status	Amount for replacement
1	LAPTOP - Toshiba Satellite	TEQIP-II/ KL/KL1G02/58/1404	Not Working Spares not available. Obsolete model	Rs.75000
2	Electronic circuitry and software for PC based IC engine	TEQIP-II/ KL/KL1G02/02/570	Not Working	Rs.75000
3	Toshiba Satellite Laptop	TEQIP II/KL/KL1G02/58/1402	Not working/ Unserviceable	Rs. 60,000
4	5 kVA UPS (Make: Power-one) with Battery	TEQIP II/KL/KL1G02/168/1640	Not working/ Unserviceable	Rs. 2,45,000
5	Multimedia Projector	TEQIP-II/ KL/KL1G02/156	Not Working Spares not available. Obsolete model	Rs. 56,000
Total				511000

**Proposals for maintenance of items purchased under TEQIP II: Rs.25,000.00**

SL. No.	Name of Equipment	Package No.	Present status	Amount for replacement
1	Vortex tube refrigeration	TEQIP-II/ KL/KL1G02/01/573	Compressor maintenance Issues with electric motor and cylinder head	Rs.10000
2	Solar water heater	TEQIP-II/ KL/KL1G02/117/915	Damaged supporting wheels / trolley	Rs.5000
3	Biomass Gasifier	TEQIP-II/ KL/KL1G02/150/1616	Maintenance of Electrical loading panel, Generator set maintenance	Rs.5000
4	3 kVA UPS (Make: Power-one)	TEQIP II/KL/KL1G02/168/1639	Not working	Rs. 5000
Total				25000

**C1.4. Chemical Engineering Department**

**Proposals for student training:Rs.45,000.00**

Sl. No.	Training programme	Beneficiary	Amount
1	Software training (MATLAB, DWSIM, UNISIM DESIGN, ANSYS, Statistical computing	S7 B.TECH. (65) and M.TECH. (25) students	Rs.45000.00

software) (5 x 3 = 15 days)		
-----------------------------	--	--

<b>Faculty/staff development programme: Rs.81,500.00</b>			
<b>Sl. No</b>	<b>Name of Faculty</b>	<b>Programme</b>	<b>Amount</b>
1	Adil Muhammed	FDP on 'Non-conventional Energy Sources – Technologies and Trends'	50000
2	9 faculty members, IChE membership	Life membership of IChE (Rs.7000/- per head)	31500

<b>Research seed money projects: Rs.4,10,000.00</b>			
<b>Sl. No.</b>	<b>Description of project</b>	<b>Faculty</b>	<b>Amount</b>
1	Kinetic and mass transfer study of CO <sub>2</sub> absorption in sodium hydroxide solution	Adil Muhammed	200000
2	Pesticides removal from water using bio char	Suma K	210000

<b>Proposals for replacement of items:Rs.3,83,000.00</b>				
1	Replacement of All in One Computers (2 Nos)	1.TEQIPII/KL/KL1G02/58/1398 2.TEQIPII/KL/KL1G02/58/1383	Not working	100000
2	Replacement of Laptop (Toshiba -2 Nos)	TEQIP II/KL/KL1G02/58	Not Working Properly (Obsolete model, spares difficult to get)	140000
3	Printer (Panasonic – 5 No.)	TEQIP II/KL/KL1G02/59	Not working	75000
4	Projector (MITSUBISHI)	TEQIP II/KL/KL1G02/156 (EW330U- 1002241)	Not working and non-serviceable	68000

## 5. AE&I Engineering Department

**Proposals for new faculty/ staff/student development programs: Rs.66000/-**

<b>Sl. No</b>	<b>Name of Faculty</b>	<b>Programme</b>	<b>Amount</b>
---------------	------------------------	------------------	---------------

<b>1</b>	Aparna D R, RF Systems and validation Engineer, SatixFy UK Limited, UK	Higher education and career opportunities abroad Coordinator: Prof. Rashid Ummer N T	3000
<b>2</b>	Vivek Tomar, Member Research Staff, Central Research Lab, Bharat Electronics Limited, Delhi	Navigating corporate organizational culture Coordinator: Prof. Rashid Ummer N T	3000
<b>3</b>	Dr Anoop Thomas, Assistant Professor, IIT Bhubaneswar	How to crack GATE Exam and opportunities after GATE Coordinator: Prof. Rashid Ummer N T	3000
<b>4</b>	Dr. Seema P. Uthaman	Stress management during Covid 19 Coordinator: Prof. Pradeep K. Bharathan	3000
<b>5</b>	Dr. Jaseem K.	Identification and management of commonly seen mental health issues of young adults Coordinator: Prof. Pradeep K. Bharathan	3000
<b>6</b>	Dr Jayakumar E P, Assistant Professor, ECED, NIT Calicut	Hands on training for students on “ Logic circuit design with Verilog”: 4 days, 18 to 21 Dec. 2020 Coordinator: Dr. Ahammed Muneer K V	12000
<b>7</b>	Dr. Golda Brunet R. Associate Professor Govt. Engineering College Selam, Tamilnadu	Introduction Hidden Markov Models Coordinator: Dr. Shajee Mohan B S	3000
<b>8</b>	Dr. Golda Brunet R. Associate Professor Govt. Engineering College Selam, Tamilnadu	HMMs for Speech and Audio Processing Coordinator: Dr. Shajee Mohan B S	3000

<b>9</b>	Dr. Padmanabhan Rajan Associate Professor IIT Mandi	Speech and Music signal Processing  Coordinator: Dr. Shajee Mohan B S	5000
<b>10</b>	Dr. Seema P. Uthaman  IMHANS Kozhikode	Counselling session for S1 students	3000
<b>11</b>	FPGA training  (40 hours)	S5 ECE students and  M1 students	25000

<b>Proposals for replacement of items:Rs.2,37,000.00</b>				
<b>SL. No.</b>	<b>Name of Equipment</b>	<b>Package No.</b>	<b>Present status</b>	<b>Amount for replacement</b>
<b>1</b>	8086 Trainer kit	TEQIP/II/KL/KLIG02/102/906 to 911 (6 Nos.)	Not working	90000
<b>2</b>	8051 Trainer kit	TEQIP/II/KL/KLIG02/102/900 to 905 (6 Nos.)	Not working	78000
<b>3</b>	Desk top computer	TEQIP/KL/KL1G02/136/1228	Not working	40,000
<b>4</b>	Canon Laser jet printer	TEQIP/KI/KLIG02/59/22	Not working	29000

Summary of new proposals received during November 2020 and under processing

<b>Department</b>	<b>Corpus fund</b>		<b>FSD fund</b>		<b>ERF</b>		<b>EMF</b>	
	<b>Amount available</b>	<b>New proposals</b>	<b>Amount available</b>	<b>New proposals</b>	<b>Amount available</b>	<b>New proposals</b>	<b>Amount available</b>	<b>New proposals</b>
AE& I	259950	66000	533566		639000	237000	611606	
Chemical	259950	45000	529267	491500	632500	383000	542043	
Civil	405577	99181	589323	135750	639000	45000	532325	
Mechanical	344885		520898		639000	511000	532105	25000
Institution	433144	573000	562449	300000	395014	85000	591693	7000
Total of new proposals		765681		897250		1261000		32000
Total cost of proposals under						316259		252300

processing								
Total amount required for currently submitted proposals								35,24,490

## **CII. Shifting to the new campus**

Government Engineering College, Kozhikode started in the year 1999, is functioning in a 5 acre campus located in the compound of Kerala Government Poly Technic College, Kozhikode near military barracks at West Hill. Currently there are five under graduate (B. Tech.) programmes and three post graduate (M. Tech.) programmes offered in the institution.

Three institutions (Engineering College, Poly Technic and Technical High School) are functioning in the existing campus of area 14 acres. The available area in the present campus is fully occupied with buildings and hence construction of buildings for new facilities is not possible. Moreover, proximity with military barracks and defence department helipad prevents us from constructing high-rise buildings. Administrative sanction received from government for various facilities (amounting to Rs. 2319 Lakhs) including boys hostel, ladies hostel, academic blocks, central computing facility, workshops, staff quarters and other required facilities proposed are not realised due to shortage of land.

We are facing difficulty for complete utilization of funds offered by Central and State Governments and other agencies like FIST, CERD, TEQIP, AICTE, UGC etc. due to lack of space. It is also difficult to start new UG courses in Computer Science and Engineering (CSE) and Electrical and Electronics Engineering (EEE) and PG courses due to the limitations in the available land area.

Under these circumstances, college need to be expanded with more land area. Since vacant land in the ownership of government is not available near the present location, private land needs to be acquired. In this situation, proposal had been submitted to the Government of Kerala to allocate an approximate amount of Rs.5000 lakhs for acquiring land in a convenient location identified near Kozhikode city.

## **Part D : Other Items**

### **D1. Approval of revised TEQIP II committees**

The new committees formed for the smooth functioning of four funds is listed below.

#### **TEQIP II Committees and Members**

##### **1. Coordinator: Prof. Premson Y**

##### **2. Academic committee**

- i. Prof. Ansu V (Convener)
- ii. Prof. Sandhya M
- iii. Prof. Suma K
- iv. Dr. Baburaj M

##### **3. Finance Committee**

- i. Dr. Rojisha V C (Convener)
- ii. HOD Mechanical
- iii. HOD Chemical
- iv. HOD Civil
- v. HOD AE&I

##### **4. Purchase Committee**

- i. Dr. Sreejith B (Convener)
- ii. Dr. Beula C
- iii. Dr. Ragesh P P
- iv. Dr. Abdurahiman V

##### **5. Research Guidance Committee**

- i. Dr. Anirudhan P (Convener)
- ii. Dr. Shajeemhan B S
- iii. Prof. Suma K
- iv. Prof. Bindurani P



## **D2. Revision of four fund utilization guidelines**

The addition of following clauses are suggested to be included in four fund utilization guidelines for imparting training utilizing the online platforms. The modifications are required in the sections 2 and 3 of four fund utilization guidelines.

### **2. GUIDELINES FOR FSD PROGRAMMES USING FOUR FUNDS**

12. Online training programs for faculty and staff may be permitted on subject-oriented, interdisciplinary, or research related STTP/FSD/Workshop for a maximum of 6 days per program. The honorarium for expert faculty shall not exceed Rs.1000 per hour subjected to a maximum of Rs.3000/-per day for faculty from Government/aided/accredited engineering colleges and industry. For faculty from IITs/IISc honorarium may be Rs.5000/- per day.

### **3. GUIDELINES FOR THE CONDUCT OF STUDENT SUPPORT PROGRAMMES**

14. Online training programs for faculty students may be permitted on subject-oriented, interdisciplinary areas, or software training/Workshops. The honorarium for expert faculty shall not exceed Rs.1000 per hour subjected to a maximum of Rs.3000/-per day for faculty from Government/aided/accredited engineering colleges and industry. For faculty from IITs/IISc honorarium may be Rs.5000/- per day.