#### TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME Phase II

**Sub Component 1.1** 



# 6<sup>th</sup> MEETING OF THE BOARD OF GOVERNORS DETAILED AGENDA NOTES

Date: 30-01-2015

Time: 10.30 AM

**Venue: Seminar Hall** 

# COLLEGE OF ENGINEERING CHERTHALA PALLIPPURAM P.O., CHERTHALA-688 541, KERALA

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#### **Background**

The meeting of Board of Governors is convened to monitor the progress of TEQIP-II activities at CE Cherthala, under Sub component 1.1, with emphasis to procurement and academic activities, and to accord necessary approvals and clearances for the ongoing activities. The 6<sup>th</sup> meeting of the BOG is being convened on 30<sup>th</sup> of January 2015.

#### **AGENDA**

#### **Part 1-Procedural**

Sl. No	Items	
1.1	Confirming the Minutes of the 5 <sup>th</sup> Meeting of the Board of Governors held on 5-9-2014 at College of Engineering Cherthala, Alappuzha	6
1.2	Report on the action taken/action pending on the pertinent decisions in the Minutes of the 5 <sup>th</sup> Meeting of the Board of Governors held on 5-09-2014 at College of Engineering Cherthala	6

#### **Part 2-Ratifications and Approvals**

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#### **Part 4-Other items**

#### Part 5 **Annexures**

1	Minutes of the Vth BOG meting dated 5.9.2014	
2	New Procurement Packages proposed to be included	
3	Terms of Reference for the High Intensity Training Programme on JAVA & ANDROID	
4	Faculty Position and Cadre Ratio	

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5	Expenditure incurred under various heads	
6	Mentor's Report	
7	Performance Auditor's Report	
8	Self-Assessment Reports	
9	Initial Governance Development Plan	

### PART 1

#### **Procedural Items**

# 1.1 Confirmation of the Minutes of the 5<sup>th</sup>Meeting of the Board of Governors of CE Cherthala held on 5-09-2014

The Minutes of the 5<sup>th</sup>Meeting of Board of Governors of TEQIP Phase II of CE Cherthala held on 5-9-2014 was sent to the Hon'ble Chairman for his approval. A copy of the Minutes is appended as **Annexure** 1 for confirmation.

Action sought: BoG may consider the Minutes for approval.

# 1.2 Report on action taken/action pending on the pertinent decisions in the Minutes of the 5<sup>th</sup>Meeting of the Board of Governors of CE Cherthala held on 5-09-2014

The decisions taken by the Board as recorded in the Minutes of the 4<sup>th</sup>Meeting of the Board of Governors of CE Cherthala held on 25-2-2014 have been noted and actions have been initiated. A report on the action taken and actions pending is presented in the Table 1.2 given below

Sl no.	Decision Taken	Action Taken		
1	After payment of the pending	Complied with. Payment sanctions for Rs 35 lakhs for		
	expenditure with the funds	completing outstanding payments were sent to the SPFU.		
	available with the institution,	SPFU released an amount of Rs 35 lakhs to CE Cherthala for		
	write to SPFU for further funds	this purpose.		
2	Prepare a realistic plan for the	A TNA plan for the next three months (February-April) has		
	TNA for the next quarter	been prepared, with the following.		
		Four In House Faculty Development Programmes are		
		planned		
		2. Eighteen Faculty are proposed to undergo outstation		
		training programmes in the subject domain		
		3. Six Faculty are proposed to attend the Pedagogy		
		training programme to be held at IIT Madras during		
		February 23-25 and February 26-28, 2015		
		4. Four Technical Support staff are proposed to attend		
		various training programmes in the subject domain at		
		NITTR Chennai and NITTR Bhopal.		
		Detailed TNA Plan is included in this report.		
3	Include statistics regarding the	This has been included in the report on EAP activities.		
	number of students belonging			

	to various categories such as	
	SC/ST, OBC and Female.	
4	Conduct Motivational training	Motivational Classes have been conducted for the first year
	programmes for students of	students. Details are included in this report.
	every year, especially the first	
	year.	
5	College to associate with a	CE Cherthala has signed an MOU with Sacred Heart Hospital,
	hospital having ambulance	Mathilakam, Cherthala, for this purpose.
	service and In Patient and Out	
	Patient facility by signing an	
	MOU	
6	To follow proper procedure for	Proper procedure has been followed as per instructions, by
	the appointment of Data Entry	advertising in News Paper, College website and Notice Boards.
	Operator	Qualifications were as prescribed by the SPFU, i.e Diploma In
		Computer Science/Engineering/Commercial Practice. Practical
		Test and Interview were conducted for the selection.
7	Preparation of Master Plan for	A Committee for the purpose has been constituted. The
	C E Cherthala to be initiated.	committee is preparing a draft report for the same.

**Action sought**: BoG may consider the ATR for approval.

### PART 2 **RATIFICATION & APPROVAL**

#### 2.1 Status of Procurement of Goods

The number of packages in the Procurement plan for procuring goods under TEQIP-II is Eighty Five . Sixty packages for procuring goods have been completed in all aspects. Purchase orders have been awarded for two goods packages, which have been delivered and successfully installed.

Table below, shows the completed procurement of goods till date.

**Table 2.1** 

	Completed Packages of Goods in Procurement Plan					
Sl. No.	Package Name	Package Code	FIRM	Budgeted Amount (Rs.)	Actual Amount (Rs.)	
1	Bridges and potentiometer	TEQIP- II/KL/KL1G19/36	Elmatics Enterprises	124,200.00	110,155.00	
2	Cables and Installation for multimedia projectors, interactive boards	TEQIP- II/KL/KL1G19/94	Binary Systems	24,995.00	24,995.00	
3	CATIA and DELMIA	TEQIP- II/KL/KL1G19/47	EDS Technologies Pvt. Ltd	740,000.00	712,126.00	
4	Computer Furniture	TEQIP- II/KL/KL1G19/24	Chair Zone	611447.00	611401.00	
5	DSP boards	TEQIP- II/KL/KL1G19/28	Edgate Technologies	905,000.00	712,125.00	
6	E TAP Software	TEQIP- II/KL/KL1G19/43	ETAP Automation Pvt. Ltd.	300,000.00	299,906.00	
7	Electrical trainer kits	TEQIP- II/KL/KL1G19/37	Elmatics Enterprises	315,100.00	327,665.00	
8	Electronics Text books	TEQIP- II/KL/KL1G19/56	current books india pvt ltd	702,261.00	532,801.00	
9	Eleven Lab PCB Prototyping Machine	TEQIP- II/KL/KL1G19/45	ENTUPLE Technologies	990,000.00	990,000.00	
10	EPABX	TEQIP- II/KL/KL1G19/9	ZERONE TECHNOLOGIES PRIVATE LTD	450,000.00	243,150.00	
11	HFSS	TEQIP- II/KL/KL1G19/8	ENTUPLE Technologies	700,000.00	700,000.00	

12	IC Testers and programmer	TEQIP- II/KL/KL1G19/19	Kitek Technologies Pvt.Ltd	499,200.00	343,650.00
13	IEEE ASPP e journal	TEQIP- II/KL/KL1G19/55	Global Information Systems Technology Pvt Ltd	370,500.00	376,200.00
14	LABVIEW	TEQIP- II/KL/KL1G19/39	Trident Techlabs Pvt Ltd	490,000.00	477,750.00
15	Library Reference Furniture	TEQIP- II/KL/KL1G19/96	ALAPPATT AGENCIES PVT LTD	823866.00	799138.00
16	Logic Analyzer	TEQIP- II/KL/KL1G19/18	Innovative Instruments Inc	982,000.00	766,500.00
17	MATLAB	TEQIP- II/KL/KL1G19/13	M/s. CoreEL Technologies (I) Pvt. Ltd.	990,000.00	988,345.00
18	Mentorgraphics modelsim	TEQIP- II/KL/KL1G19/16	CoreEL Technologies (I) Pvt. Ltd.	300,000.00	300,675.00
19	Mi Power software	TEQIP- II/KL/KL1G19/44	TRIDAX ENGINEERING SOFTWARES PVT. LTD.	650,000.00	590,000.00
20	Microwave test bench	TEQIP- II/KL/KL1G19/11	Scientific Enterprises	211,000.00	145,373.00
21	Multimedia Projectors and interactive boards	TEQIP- II/KL/KL1G19/91	Binary Systems	953,360.00	953,353.00
22	NI ELVIS II	TEQIP- II/KL/KL1G19/41	Trident Techlabs Pvt Ltd	565,000.00	564,900.00
23	Office furniture	TEQIP- II/KL/KL1G19/25	Godrej Boyce	997,571.00	997,522.00
24	Optical fibre trainer kits	TEQIP- II/KL/KL1G19/12	Benchmark electronic Systems pvt ltd	132000.00	126000.00
25	OrCad software	TEQIP- II/KL/KL1G19/46	FTD AUTOMATION PVT. LTD.	600,000.00	599,550.00
26	Oscilloscopes	TEQIP- II/KL/KL1G19/4	Innovative Instruments Inc.	933,500.00	932,505.00
27	Power electronics trainer kit	TEQIP- II/KL/KL1G19/38	Elmatics Enterprises	162,600.00	147,934.00
28	power quality analyzer	TEQIP- II/KL/KL1G19/93	CONVERGENT TECHNOLOGIES	422,000.00	422,000.00
29	power supplies	TEQIP- II/KL/KL1G19/2	Innovative Instruments Inc.	928,000.00	942,049.00

30	Printers and copiers	TEQIP- II/KL/KL1G19/14	RICOH INDIA LIMITED	922,000.00	716,625.00
31	rheostats	TEQIP- II/KL/KL1G19/33	Scientific enterprises	190,025.00	145,929.00
32	Science direct e journal	TEQIP- II/KL/KL1G19/76	International Book House Pvt. Ltd.	470,000.00	472,973.00
33	signal generators	TEQIP- II/KL/KL1G19/3	Innovative Instruments Inc.	473,000.00	440,580.00
34	Spectrum Analyzer	TEQIP- II/KL/KL1G19/17	Innovative Instruments Inc.	500,000.00	496,650.00
35	Springer -e Journal	TEQIP- II/KL/KL1G19/79	Global Information Systems Technology Pvt. Ltd	220,000.00	205,390.00
36	Tally accounting software	TEQIP- II/KL/KL1G19/78	Tally Solutions Pvt. Ltd	18,500.00	14,400.00
37	Trainer kits- microprocessors, microcontrollers, Digital IC.	TEQIP- II/KL/KL1G19/20	Kitek Technologies Pvt. Ltd	737,250.00	581,137.00
38	Transformer and load	TEQIP- II/KL/KL1G19/31	Scientific enterprises	279,260.00	209,264.00
39	Video conferencing equipment	TEQIP- II/KL/KL1G19/21	Zerone Technologies	470,000.00	552,985.00
40	Xilinix University VIVADO System Edition S - 25 user license	TEQIP- II/KL/KL1G19/15	CoreEL Technologies (I) Pvt. Ltd.	126,600.00	126,600.00
41	JET e-journal	TEQIP- II/KL/KL1G19/77	INFORMATICS (INDIA) LTD	73000.00	67416.00
42	Barcode printer and scanner	TEQIP- II/KL/KL1G19/29	Van League Automation Solutions pvt Ltd	44,900.00	47,985.00
43	Estinet network simulator	TEQIP- II/KL/KL1G19/51	Dell Soft Technologies	900000.00	577500.00
44	Hard disk	TEQIP- II/KL/KL1G19/62	Team Frontline Limited	40,000.00	28400.00
45	AC machines	TEQIP- II/KL/KL1G19/32	Elmatics Enterprises	921,000.00	733589.00

46	Air conditioner	TEQIP- II/KL/KL1G19/50	ABM COOLING SOLUTIONS INDIA PVT LTD	968000.00	998760.00
47	Class room furniture	TEQIP- II/KL/KL1G19/26	KERALA SIDCO	899580.00	940045.00
48	Diesel generator	TEQIP- II/KL/KL1G19/23	Southern Associates	750,000.00	665,727.00
49	Computer Text Books	TEQIP- II/KL/KL1G19/57	current books india pvt ltd	655,650.00	561,104.00
50	Computers	TEQIP- II/KL/KL1G19/5	Frontier Business Systems Pvt Ltd	10,088,000.00	9,915,486.00
51	Electrical Measuring Equipments	TEQIP- II/KL/KL1G19/35	Elmatics Enterprises	295,675.00	236,742.00
52	Electrical Text Books	TEQIP- II/KL/KL1G19/58	current books india pvt ltd	310,860.00	328,309.00
53	General Books	TEQIP- II/KL/KL1G19/74	current books india pvt ltd	57,350.00	57,123.00
54	Lab Furniture	TEQIP- II/KL/KL1G19/27	KERALA SIDCO	765,550.00	764,860.00
55	Mechanical Text Books	TEQIP- II/KL/KL1G19/60	current books india pvt ltd	117,200.00	104,451.00
56	Network Accessories	TEQIP- II/KL/KL1G19/10	Zerone Technologies	3,224,738.00	2,813,058.00
57	Servers	TEQIP- II/KL/KL1G19/49	Frontier Business Systems Pvt Ltd	2,286,000.00	2,090,010.00
58	Text Books Applied Science	TEQIP- II/KL/KL1G19/59	current books india pvt ltd	250,000.00	237,375.00
59	UPS	TEQIP- II/KL/KL1G19/6	NOVATEURE ELECTRICAL &DIGITAL SYSTEMS Pvt. Ltd.	2,000,000.00	1,783,000.00
60	Xilinix FPGA Boards	TEQIP- II/KL/KL1G19/81	CoreEL Technologies, Bangalore	458,000.00	452,173.00
Total					43,103,415.00

The following table indicates the packages for which payments are pending. The items in these packages have been delivered and installed at CE Cherthala.

Table 2.2

	Pending Payments: Procurement of Goods											
Sl. No.	Package Name	Actual Amount (Rs.)										
1	Voice and Data cabling	TEQIP- II/KL/KL1G19/92	975,064.00									
2	Fire & Safety Equipment	290,258.00										
	Equipment	II/KL/KL1G19/111 Total	Cochi		12,65,322.00							

The following packages were deleted as no quotations were received for these packages.

**Table 2.3** 

	Deleted Packages: Procurement of Goods											
Sl. No.	Package Name	Package Code	Method	Budgeted Amount (Rs.)	Reason for deletion							
1	Workshop Tools Mechanical	TEQIP- II/KL/KL1G19/63	Shopping	187,445.00	Initiated. However valid quotations not received.							
2	Machine Tools Mechanical	TEQIP- II/KL/KL1G19/61	Shopping	382,700.00	Initiated. However valid quotations not received.							
		Total	5,70,145.00									

The following package has been initiated.

**Table 2.4** 

	Initiated Package: Procurement of Goods												
Sl. No.	Package Name	Package Code	Budgeted Amount (Rs.)	Status									
1	Projector Screen and Metal Box for Housing cables	TEQIP- II/KL/KL1G19/105	Minor Item	50000.00	Quotation has been received.								
		Total		50000.00									

The following packages have to be initiated. They have not been initiated till date due to lack of sufficient funds.

**Table 2.5** 

	List of new packages to be Initiated in PMSS									
No.	Package	No. of Items	Approximate Price							
1	Stabilizer (3 KVA) for A/c	24	75000							
2	Phone	50	40000							
3	Audio system smart class room + Auditorium	4+1	440000							
4	E-book (Springer)		610000							
5	LCD Monitor	1	130000							
6	ID Card Printer	1	100000							
7	Label Printer	1	5000							
8	Lightning arrester for protection	for 3 buildings	800000							
9	Vacuum Cleaner 1. Big 2. small	1+1	25000							
10	Platform + Lectern	20	520000							
11	N video card for CUDA	2	100000							
12	Fire wall for the campus Network	1	400000							
13	media converter	1	10000							
14	Sensor network nodes	5	75000							
15	Campus Automation software	1	500000							
16	Electrical demonstrator & trainer module	8	134250							
17	Cut sections of machine	3	80085							
18	water purifier system	4	200000							
19	Workshop tools	50	22600							
20	Digital Multimeter	30	150000							
21	ASTM Journal*	1	71170							
22	Cabinet for keeping lab equipment	4	300000							
22	Total Amount		4788105							

<sup>\*</sup> The package ASTM journal under direct contract, in the previous plan, was initiated and proceeded up to the generation of purchase order. However purchase could not be effected due to a significant change in the price for the package. As per AICTE norms, it is mandatory that the package is purchased. Therefore the package needs to be reinstated with the revised price.

#### **Summary**

**Table 2.6** 

HEAD	Amount in Rupees
Budgeted Amount	5,00,00,000/-
Completed Payment	4,31,03,414/-
Initiated Packages	50,000/-
packages to be Initiated	47,88,105/-
Pending Payment	12,65,322/-
Balance Amount available	7,93,159/-
for Procurement	

Action Sought: The BOG may kindly take note of the completed packages in Table 2.1 and ratify expenditure. The BOG may also kindly note the packages for which payment is pending in Table 2.2 and ratify the deletion of packages in table 2.3.

#### 2.2 Status of Various Civil Work Packages

The number of Civil Works packages in the Procurement Plan of CE Cherthala is Nine. Six packages for Civil Works have been completed in all aspects. The other three civil works packages have been initiated. The Table below indicates the completed civil works packages.

**Table 2.7** 

		Complete	d Civil Works Pac	ckages		
Sl.No	Package Name	Package Code	Name of Contractor	Contract Value	Actual Amount	
1	Electrification works	TEQIP- II/KL/KL1G19 /88	M/s M.C.Mathew	13,74,033.00	13,74,033.00	
2	Extension of building to house diesel generator	TEQIP- II/KL/KL1G19 /89	M/s R Suresh Kumar	1,84,207.00	1,54,035.00	
3	Extension of existing building to provide GD and interview rooms	TEQIP- II/KL/KL1G19 /90	M/s R Suresh Kumar	7,42,079.00	6,85,458.00	
4	Extension of the electrical machines lab	TEQIP- II/KL/KL1G19 /86	M/s R Suresh Kumar	12,49,641.00	12,34,102.00	
5	Extension of the mechanical workshop	TEQIP- II/KL/KL1G19 /85	M/s R Suresh Kumar	12,49,641.00	12,18,829.00	
6	Refurbishment of seminar hall	TEQIP- II/KL/KL1G19 /87	M/s R Suresh Kumar	2,00,374.0	1,86,057.00	
	48,52,514.00					

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The following Civil Works Packages have been initiated on PMSS.

**Table 2.8** 

		Initiated (	Civil Works Pac	kages	
Sl.No	Package Name	Package Code	Method	Contract Value	Actual Amount
1	MS Grill for Windows	TEQIP- II/KL/KL1G19/98	Minor item	49,999.00	N.A
2	Stair Case and Hand Railiing	TEQIP- II/KL/KL1G19/99	Minor item	41,000.00	N.A
3	Roofing	TEQIP- II/KL/KL1G19/100	Minor item	19,500.00	N.A
	Completed Amou	nt till Date:		1,10,499.00	

#### **Summary**

Table 2.9

HEAD	Amount in Rupees
Budgeted Amount	50,00,000/-
Completed Payment	48,52,514/-
Initiated Packages	50,000/-
Balance Amount available	36,987.00/-
for Civil Works	

Action Sought: The BOG may kindly approve expenditure for the completed civil works packages in Table 2.9. The BOG may also kindly note the civil works packages that have been initiated.

#### 2.3 Proposed new packages in the Procurement Plan

It is proposed to initiate new packages in the Procurement Plan of CE Cherthala, for the additional funds that are available. The PMSS is under maintenance currently and the permission to add new packages is only given intermittently. The list of the new packages proposed is included in Annexure II. If the new packages are approved, the packages will be added in the Procurement Plan as and when it is permitted in PMSS.

Action Sought: The list of new Procurement Packages in Annexure II maybe approved.

#### 2.4 Academic programmes conducted

#### **2.4.1 In-House Programmes**

The following table summarizes the in house training programs conducted at C E Cherthala since the 5<sup>th</sup> BOG meeting on 05/09/2014

**Table 2.10** Faculty Development Programme - In-house

SI. No.	Title of the Programme	Dep artm ent & cour se No.	Duration & date	Own Instit ute	Other Instit utes (IRG)	Tota 1	Co-ordinator	IRG(Rs.)	Expenditu re (Rs.)
1.	Stress Management	AS- 01	18/11/201 4 1 day	93	0	93	Sarakutty K.J	0	18,625
2.	Relevance of Vedic Mathematics in Engineering	ME- 01	04/12/14- 05/12/14 2 days	45	0	45	Anupama A.	0	35,310
3.	Research Trends in Semiconductor Device Modeling & Fabrication	EC- 09	08/12/14- 12/12/145 days	23	34	57	Dr. Jobymol Jacob	34,000	1,64,321

#### **Report on the Programs**

A one day talk on "Stress Management" has been conducted for the entire faculty and staff of the college on 18/11/2014. The program was coordinated by Prof. Sarakutty K.J. and the expert was the renowned Psychologist Mr. Anoop Kumar. He discussed various ways to overcome stress. A total of 93 people participated in the program and the expense was Rs.18, 625/-

A two day workshop on "Relevance of Vedic Mathematics in Engineering" was coordinated by Anupama A., AP in EC and Faisal, AP, Mechanical Engineering on 4<sup>th</sup> & 5<sup>th</sup> of December 2014. The workshop was about the application of Vedic mathematics in arithmetic computations. The course targeted on the application of 16 Sutras in Vedic Mathematics for fast computation. A total of 45 faculty participated in the program and the expense was Rs.35, 310/-. The feedback from the participants was very positive.

A 5 day Faculty Development Program on "Research Trends in Semiconductor Device Modeling & Fabrication" was conducted by the Department of Electronics Engineering from 8<sup>th</sup> -12<sup>th</sup> December 2014. The Faculty Development Program (FDP) on Research Trends in Semiconductor Device Modeling and Fabrication was aimed to introduce the fundamental concepts behind semiconductor device modeling and fabrication technology and to make aware the participants the research challenges in this area. The FDP was coordinated by Dr. Jobymol Jacob. The 5 day FDP on was inaugurated by Prof. Amitava Dasgupta, Professor in Electrical Engineering, IIT Madras who delivered the keynote talk on 'Introduction to Semiconductor Device Modeling'. The other sessions were handled by eminent experts from IITs and NITs. A total of 57 participants attended the program out of which 34 were external. A sum of Rs. 34,000/- was collected as the internal revenue. The total expenses for the program was Rs. 1,64,321/-.

#### **2.4.2 Out-Station Programmes**

The following below summarizes the outstation training programs attended by the faculty since the 5<sup>th</sup> BOG on 05/09/2014

**Table 2.11 Faculty Development Programme – Outstation** 

S1.	Name	Designati	Depar	Host Institute	Programme Title	Duration	Expendit
No.		on	tment			& Date	ure
			&				(Rs.)
			cours				
			e No.				
1.	Pradeep M.	Asso.	EC-	IIT Kanpur	"Wireless Convex	3 Days,	25,000
		Professor	17		Optimization"	15/09/201	
						4-	
						17/09/201	
						4	
2.	Muhammed	AP	CS-	COE Kidangoor	" Moodle	2 days	2815
	Illyas H.		11		Fundamentals"	27-28	
						Nov. 2014	
3.	Pramod Mathew	AP	CS-	COE Kidangoor	" Moodle	2 days	2815
	Jacob		12		Fundamentals"	27-28	
						Nov. 2014	
4.	Joymon	AP	EE-	NIT Calicut	"Solar Power Plants for	2 Days	2000
	Emmanuel		05		Residential,	17-18 Dec.	
					Commercial Utility &	2014	
					off-grid Applications"		
5.	Meera E.	AP	EE-	Mar Athanasius	POWER	5 days	1000
			06	College of	ELECTRONICS,	7-13 Jan.	
				Engineering,	DRIVES AND	2015	
	_			Kothamangalam	CONTROL		

#### **Report on the Programs**

Pradeep M., Associate Professor in EC attended a training program on "Wireless Convex Optimization" at IIT Kanpur from 15/09/2014-17/09/2014. Eminent professors from IIT

- Kanpur and other premier institutions handled the sessions. The classes were all very informative as per the feedback from Prof. Pradeep M.
- Muhammed Illyas H., AP in CS and Pramod Mathew Jacob, AP in CS attended the two day wokshop on" Moodle Fundamentals" at COE Kidangoor from 27-28 Nov. 2014. The sessions were on the usage of MOODLE software for –content development.
- Joymon Emmanuel, AP in EEE attended a national seminar on "Solar Power Plants for Residential, Commercial Utility & off-grid Applications" at NIT Calicut from 17-18 Dec. 2014. This national seminar threw light upon various challenges involved in setting up solar photovoltaic power plants. The seminar was very useful to get an insight into the working of PV systems from a theoretical as well as practical point of view as per the opinion of the participant.
- Meera E., AP in EEE attended a 5 day program on "Power Electronics, Drives and Control" from 7-13 Jan 2015 at Mar Athanasius College of Engineering, Kothamangalam. This training program emphasized on the basic concepts of power electronics, various type of converters and modulation technologies as well as implementation of controller for power electronic circuits using various real time interface tools. Through the program, the various power electronics concepts were made strong. The program also gave the participant a chance to familiarize with dSPACE and FPGA.

#### 2.4.3 Planned In-house Faculty Development Programs

Four In House FDP programmes are planned for Feb-April 2015 as per the following table.

**Table 2.12** 

Sl. No.	Title of the Programme	Dept:	Durati on & date	No. of participants  Expected			Coordinator	Expected Expenditure	
				Own Instit ute	Other Instit utes (IRG)	Total		(Rs.)	
1.	Open Source Software Tools	CS	4 days April 2015	35	5	40	Illyas H.	1 lakh	

2.	Advanced Signal Processing	EC	4 days March 2015	30	10	40	Jayadas C.K.	1 lakh
3.	Energy Conservation & Management	EE	3 days Februar y 2015	15	25	40	Elizwa Laiju	1 lakh
4.	Discrete mathematics and linear algebra	AS	5 days April 2015	35	5	40	Sarakutty K.J.	1.2 lakh

#### 2.4.4 Planned Outstation Faculty Development Programs as per TNA

It is proposed that eighteen faculty members will attend training programmes in the subject domain at various IITS and NITTRs. The list is shown in the following table.

**Table 2.13** 

Sl. No.	Name	Designation	Department	Host Institute	Programme Title	Duration & Date	Expenditure (Rs.)
1	Janu R.	AP	CS	NITTTR Chandigarh	TCP/IP network	23/02/2015 - 27/02/2015	20000
2	Greeshma. N. Gopal	AP	CS	IIT Madras	Advanced Teaching & Learning Process	26-28 Feb. 2015	5000
3	Manilal D.L.	Associate Professor	CS	NITTTR Chandigarh	TCP/IP network	23/02/2015 - 27/02/2015	20000
4	Sony P.	AP	CS	NITTTR Chennai	Educational Video Film Making Workshop	16-20 Feb. 2015	15000
5	Illyas H.	AP	CS	NITTTR Chandigarh	TCP/IP network	23/02/2015 - 27/02/2015	20000

6	Sony P.	AP	CS	ESCI Hyderabad	Advance Excel with Macros & VB Script 26 – 27 Feb 2	26/02/2015 - 27/02/2015	30000
7	Dr. Ashok Kumar T	Associate Professor	EC	IIT Guwahati	RF & Photonics- Fundamentals & Advances	23-27 Feb. 2015	30000
8	Dr. Vinu Thomas	Associate Professor	EC	IIT Guwahati	Recent trends in Electronics & Computation	09-11 March 2015	20000
9	Jayadas C.K.	Associate Professor	EC	IIT Kharagpur	Short term course on "Design & Analysis of Efficient systems for Microwave Transmission & Radiation"	February 23-28, 2015 6 Days	30000
10	Sreekumar K.	AP	EC	IIT Kharagpur	Short term course on "Design & Analysis of Efficient systems for Microwave Transmission & Radiation"	February 23-28, 2015 6 Days	30000
11	Irshad Ali T.K.	АР	EC	IIT Guwahati	Advances in Biomedical engineering	Feb.25- March 1, 2015	30000
12	Anupama A.	AP	EC	IIT Kharagpur	Short term course on "Design & Analysis of Efficient systems for Microwave Transmission & Radiation"	6 days February 23-28, 2015	30000

13	Dr. Jobymol Jacob	AP	EC	IIT Madras  NITTR  Chandigarh	Advance Teaching & Learning Process FPGA based Digital System Design	23-26 Feb. 2015 27/04/2015 - 02/05/2015	5000 30000
14	Elizwa Laiju	AP	EE	IIT Guwahati	Solar Energy Harvesting	20-21 Feb. 2015	20000
15	Devanand C. N.	AP	ME	IIT Kharagpur IIT Madras	Short term course on Industrial Safety Engineering Advance Teaching & Learning Process	16-18 Feb. 2015 23-25 Feb. 2015	30000 5000
16	Sandhya P. Gopal	AP	ME	IIT Kharagpur	Short term course on Industrial Safety Engineering	16-18 Feb. 2015	30000
17	Sarakutty K J	Associate Professor	AS	IIT Guwahati IIT Madras	Mathematics for Engineering Education  Advanced Teaching & Learning Process	16-20 Feb., 2015 26-28 Feb., 2015	30000 5000
18	Radha Balakrishnan	АР	AS	IIT Guwahati	Mathematics for Engineering Education	16-20 Feb., 2015	30000

#### 2.4.5 Planned Outstation Training programmes for Technical Support Staff.

It is proposed that four members of the Technical Support Staff attend training programmes in the subject domain at various NITTRs.

**Table 2.14** 

SI. No.	Name	Designation	Department & course No.	Host Institute	Programme Title	Duration & Date	Expenditure (Rs.)
1	Suresh T.K.	Technician	CS	NITTTR Chennai	Robotics and Mechatronics for Industrial Automation	2-6 March	10000
2	Madhusoodhana Kurup	Technician	CS	NITTTR Chennai	Educational Video Film Making Workshop	16-20 Feb. 2015	10000
3	Lekshmi V R	Technician	EC	NITTTR Chennai	Embedded Systems	16-20 Feb. 2015	10000
4	George C. Karammel	Technician	EC	NITTR Bhopal	SCILAB for Electronic Circuits	23-27 Mar 2015	10000

#### 2.4.6 Programmes under the Equity Action Plan (EAP) Component

Motivational and Personality Development programmes were conducted for the first year and second year students under the aegis of the EAP Cell. Remedial classes were conducted for the second year students as well as for students who were appearing for supplementary examinations in various subjects. It was observed that many of the current first year students are lacking in mathematical concepts which should have been acquired prior to their joining Undergraduate Programmes in Engineering. The same was also observed for Computer Programming concepts, as many of the students had not opted for Computer Science in their plus two programme at school. These students were identified by their respective faculty advisors in consultation with other faculty. Bridge courses in Mathematics and Computer Programming were conducted for these students. Remedial Lab sessions in Electronics were also arranged for the weaker students in the second year. In addition, the women's cell conducted a programme for the first year girl students on stress management. The details of these programmes are indicated in the following tables.

**Table 2.15** Training in Soft Skills, subject areas, Motivation & counseling sessions that were conducted

Sl. No	Title of the Programme	Semester & batch	Duration & date	No. of participants	Co-ordinator	Expenditure (Rs.)
1.	Motivation & counselling	First year(4 batches)	4 days 16,20,23, 27/10/14	48+50+55+46= <b>199</b> Female-99 SC/ST-11 OBC- 132	Sarakutty K.J.	20116
2.	Personality development	S4	1 Day 24/12/14	32 Female-25 SC/ST- 0 OBC- 20	Sreekumar K	4924

**Total expenditure = Rs 25040/-**

**Table 2.16** Remedial classes and Bridge courses conducted

#### i) Remedial class for $3^{rd}$ semester regular students

			<u> </u>	N. C1		I
No	Subject	Faculty	No.of	No.of hrs	Expendit	Date
			participants		ure	
1	EC	Prof. Surendranatha Panicker	40	20	12000	11,12,18,19,
	B/1301.Engg.maths		Female-27			22/10/14
			SC/ST- 3,			
			OBC-21			
2	CS/1301.Engg.maths	Prof. Surendranatha Panicker	49	20	12000	8,9,15,16,
			Female-25			17/11/14
			SC/ST-3			
			OBC- 24			
3	EC A/1301.Engg.	Dr.Remadevi S	47	12	7200	9,23,
	maths		Female-28			30/08/14
			SC/ST- 0			
			OBC- 21			
4	EE/EDC	Dr.Jobymol Jacob	33	4	2400	10/11/14
			Female-15			
			SC/ST- 2			
			OBC- 12			
5	CS/Logic Design	Jayadas C.K.	28	4	2400	14/11/14
			Female-10			
			SC/ST- 0			
			OBC- 12			
6	EC/PRP	Jayadas C.K.	35	8	4800	13,
		-	Female-11			15/11/14
			SC/ST-0			
			OBC- 3			
7	EE/EDC	Elizwa Laiju	17	10	6000	18,19,
			Female-0			21/11/14
			SC/ST-1			
			OBC- 10			
8	EE/CSSI	Elizwa Laiju	17	13	7800	13,14,17,

			Female-0 SC/ST- 1 OBC- 10			20/11/14
9	EE/EMM I	Veena Mathew	17 Female-0 SC/ST- 1 OBC- 10	10	6000	15,18, 20/11/14
10	EE/Engg.Materials	Meera E	17 Female-0 SC/ST- 1 OBC- 10	9	5400	14,17, 21/11/14
11	CS/EDC	Nidhin K	18 Female-4 SC/ST- 0 OBC- 9	14	8400	10,11,12, 13/11/14

#### Total expenditure = 74400/-Remedial class for 4<sup>th</sup> semester (special supplementary) subjects conducted ii)

No.	Subject	Faculty	No.of participants	No.of hrs	Expenditure	Date
1	CS / ALC	Aswathy V Shaji	16	11	6600	20,21/09/14,0
			Female-3			2,03/11/14
			SC/ST- 0			
			<i>OBC- 7</i>			
2	Engg.mathsIII	Sarakutty K.J	26	8	4800	27,28/09/14
			Female-13			
			SC/ST- 5			
			OBC- 14			
3	EC / DSD	Dr.Manoj V.J.	48	28	16800	27,28/09,22,
			Female-26			25/10,2,3,4,
			SC/ST- 4			11/11/14
			OBC- 17			

#### **EXPENSES:**

Remuneration = 28200Tea and snacks = 3270

**Total expenditure =31470** 

#### Remedial class for 6<sup>th</sup> semester (special supplementary) subjects conducted iii)

	Subject	Faculty	No.of participants	No.of hrs	Expenditure	Date
1	CS / DSP	Abdul Kareem	11	12	7200	6,7,13/12/14
			Female-5			
			SC/ST- 1			
			OBC- 5			
2	Embedded	Teffi Francis	6	3	1800	02/01/15
	system		Female-4			
			SC/ST- 1			
			OBC- 4			

**Total expenditure =9000** 

#### Remedial lab for 3<sup>rd</sup> semester EC students conducted iv)

	Subject	Faculty & staff	No.of participants	No.of hrs	Expenditur	Date
					e	
1	Basic	Vishnu Pradeep &Lekshmi	20	6	5100	06,08/12/14
	Electronics lab	V.R.	Female-5			
			SC/ST- 0			
			OBC- 15			
2	Digital	Ashitha T.S. &	20	6	5100	06,08/12/14
	Electronics lab	Jithin T	Female-20			
			SC/ST- 0			
			OBC- 12			

**Total expenditure =10200** 

**Table 2.17** Bridge course for first year students conducted

No.	Subject	Faculty	No.of participants	No.of hrs	Expenditur	Date
					e	
1	Computer	Mohammed Illyas,	40	14	8400	14,15/11/14
	programming	Pramod Jacob	Female-41			
			SC/ST- 3			
			OBC- 31			
2	Mathematics	Prof. Surendranatha	80	28	18400	22,23,29,
		Panicker,	Female-59			30/11/14,
		Sarakutty K.J.	SC/ST- 5			14/12/14
		•	OBC- 48			

**Total expenditure =26800** 

**Table 2.18** 

Won	nen Cell Programmes co	nducted
Sl.	Title of the Programme	Semester &

S1. No	Title of the Programme	Semester & batch	Duration & date	No. of participants	Coordinator	Expenditure (Rs.)
1.	personality development and stress management	First year girls	1 Day 27/09/14	55 Female-55 SC/ST- 3 OBC- 34	Sarakutty K.J.	11759

**Total expenditure = 11759/-**

**GRAND TOTAL** = Rs.188669/-

#### 2.4.6.1 Action plan for next 3 months

The tables below indicate the action plan under the EAP Component for training in soft skills nd subject domains, Motivation and Counselling sessions, Remedial classes and Bridge Courses and Women's Cell activities.

Table 2.19

Training in Soft Skills, subject areas, Motivation & counseling sessions

S1.	Training Programme	No. of days	Tentative Dates	Expected Expenditure	
No.		IN COLUMNIA			
	Fir	al Year Students (VIIIS	emester)		
1	Technical skill training	5 days	Feb.15	100000	
2	Soft skill training	3 days	Mar. 2015	50,000	
3	Technical Writing	2 Days	June.2015	40,000	
	Pre-	Final Year Students (VI	Semester)		
			1		
3	Microcontroller Programming	3 days	Jan.2015	50,000	
4	Workshop on Time Management	2 Days	Feb. 2015 April 2015	40,000	
5	Training on web based application development tools	• •		50,000	
	<u> </u>	IV Semester Student	is S		
2	Advancements in Electrical Measurements	2 days	Feb.15	30000	
3	Workshop on Time Management	2 Days	Mar 2015	40,000	
4	Workshop on Communication Skills	2 Days	feb.2015	40,000	
ı	·	First Year Students	1	•	
1	Workshop on Time Management	1 Day	FEB2015	20,000	
2	Training Programme to improve Communication Skills	1Day	MAR. 2015	20,000	

Table 2.20
Remedial classes and Bridge courses

Sl.no.	Semester	No.of hours	Tentative dates	Expected expenditure			
Dec.14-j	Dec.14-june15						
1	First year	150	Jan-may2015	90000			
2	4 <sup>th</sup> sem.	250	Jan-april.2015	150000			

3	6 <sup>th</sup> sem.	150	Jan-march.2015	90000
4	8 <sup>th</sup> sem.	100	Jan-march.2015	60000

**Table 2.21** 

#### **Women Cell Programmes**

1.	Unhealthy Health Habits	1 Day	Feb.2015	15,000
2	Women in Technology	1 Day	Mar.2015	15,000

#### 2.4.7 High Intensity Training Programme on JAVA and ANDROID

TEQIP-II envisages a High Intensity Training Programme (HIT) for the benefit of graduates who have successfully completed the training so that they may be recruited by industries. The HIT programme is also open to students of other colleges. No fee is to be collected from the students for this purpose.

It is understood on discussions with experts from industry that there will be requirement of Engineering Graduates who are skilled in JAVA and ANDROID Programming for the next few years. In these circumstances, the EAP cell of CE Cherthala has proposed a High Intensity Training programme on JAVA and ANDROID, which has been initiated as a service on the Procurement Management Support System (PMSS). The Terms of Reference of the said proposal has been sent to the SPFU for approval and is attached as **Annexure III.** 

#### 2.4.8 Programmes under the Industry Institute Interaction Cell (IIIC)

The following programmes are planned for February-April 2015under IIIC as per the table that follows.

**Table 2.22** 

		<b>Hosting Dept.</b>		Details of Talk					
N o.	Event	Name	Targette d Group	Expected No. of Participants	Title of the Training	No. of Day s	Month of Conduct ion	Resour ce Person s from	Estimated Expenses (Rs)
1	Training Program	Electronics Engineering	2year EC	100	Embedde d Systems and Applicati ons	10	February -March	KITES, Cochin	75000

2	Workshop	Computer Engineering	2year CS	90	PHP for OO/Proc edural Program mers	2	February -March	CTS, Cochin/ WALC O Solutio ns, Cochin	20000
3	Expert Talk	Electrical Engineering	2nd and 3rd Year EE	110	SCADA	1	March	KSEB	10000
4	Workshop	Electronics Engineering	B.Tech EC	100	ANSYS Simulati on Tools:HF SS and Designer RF.	3	March- April	Entuple Techno logies, Bangal ore	55000
		•	•				•	Total	160000

#### 2.4.9 Report on Planned Activities under Research & Development (R&D)

Eight Proposals have been received from faculty of CE Cherthala requesting Seed Money for taking up research projects. The Proposals received are listed in the following table. The Interaction of the concerned faculty with the Senior Research Advisor Dr E Gopinathan and other members of the Research Guidance Council is scheduled for 9.2.2015.

**Table 2.23** 

SL	Title of the Project	Principal Investigator
NO:		
1	Secure and private data storing and searching in cloud.	Greeshma N Gopal
		Assistant Professor
2	A new programming language in regional language & its compiler	Muhammed Ilyas H
		Assistant Professor
3	Automated Glaucoma Detection	Jayadas C.K
		Associate Professor
4	Early detection & prevention of disease by clustering co-related	Sony. P
	diseases	Assisatnt Professor
5	'Effect of process on Friction stir welding of Aluminium	Sreenivas .P
		Assistant Professor
6	Online monitoring of River water parameters	Jayadas C.K
		Associate Professor
7	Advanced Session Password Authentication Using Sounds for Blind	Muhammed Ilyas H
	Users	Assistant Professor

8	Microstrip Resonator	Sreekumar K
		Assistant Professor

#### 2.4.10 Report on Finishing School

The Placement Cell has been conducting regular training programmes on soft skill development and technical training for the final year students as part of the Finishing School activities. The list of students who have been placed this year is attached. In addition, QWAVE India, a subsidiary of QWAVE Inc., based out of Saratoga, California, is due to visit the campus in the near future for the E&C branch.

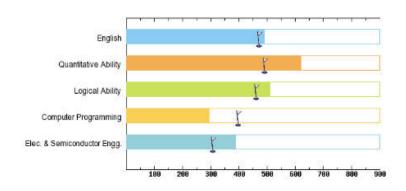
**Table 2.24** 

No	Firm	Name of recruited Student	Branch
1		Arya K Jayachandran	Computer Science & Engineering
2		Ebin Xavier	Computer Science & Engineering
3		Sreejith Karthikeyan	Computer Science & Engineering
4		Visakh P	Computer Science & Engineering
5		Biyatrice Neethu	Computer Science & Engineering
6		Cinta Varghese	Computer Science & Engineering
7		Lalat Mol Koshy	Computer Science & Engineering
8		Sreelakshmi K	Computer Science & Engineering
9		Rohith Krishnan	Electronics & Communication Engineering
10	CTS	Ciju Varghese	Electronics & Communication Engineering
11	CIS	Devadas Domini	Electronics & Communication Engineering
12		Gishnu Thampan	Electronics & Communication Engineering
13		Joyal Joseph	Electronics & Communication Engineering
14		Nijil M	Electronics & Communication Engineering
15		Sreemesh Baliga	Electronics & Communication Engineering
16		Ajefana V N	Electronics & Communication Engineering
17		Ansaba Jaleel	Electronics & Communication Engineering
18		Aswathy Prasad	Electronics & Communication Engineering
19		Hameema Akther	Electronics & Communication Engineering

			Electronics & Communication
20		Reshma P R	Engineering
			Electronics & Communication
21		Shuhaira K A	Engineering
			Electronics & Communication
22		Sreedevi M	Engineering
			Electronics & Communication
23		Vinny George	Engineering
			Electronics & Communication
24		Rubeena Azeez	Engineering
25		G. Aleksia	Come to Colone & Francisco
25		Gayathri S	Computer Science & Engineering
26		Neethu J	Computer Science & Engineering
		Troumar	computer seronce to Engineering
27		Rajeswary R	Computer Science & Engineering
20		D. L. W.D.	
28		Roshni K R	Computer Science & Engineering
20		Clinal Theory	Electronics & Communication
29		Chinchu Thomas	Engineering Electronics & Communication
20		Eshin D. Alam	
30		Febin P Alex	Engineering Electronics & Communication
31		Sreelakshmi R	
31		Arya K Jayachandran	Engineering Computer Science & Engineering
32	RETAIL-ON	Ai ya K Jayachandran	Computer Science & Engineering
	311	Ansaba Jaleel	Electronics & communication
33	IBS		Engineering
2 :		Unnikuttan M	Computer Science & Engineering
34		D: 1361	
35	MOULAGIG	Rizal Muhammed	Computer Science & Engineering
	MPHASIS	Sreejith Karthikeyan	Computer Science & Engineering
36			
37		Sreeraj N S	Computer Science & Engineering
37			

#### 2.4.11 Report on Employment Eligibility Test

The PRE-EMPLOYMENT SKILL ASSESSMENT PROGRAM was conducted by Aspiring minds on 25/10/2014 for Students of final year batch, as decided by the 5<sup>th</sup> BOG meeting. 106 students participated in this program. Capability of students in various sections was thoroughly analyzed and reports were generated based on this. The score card contains score on various modules, national percentile and college percentile, tips and suggestions to improve the score etc. The personality of the student was also analyzed which is very important at the time of interview. Individual reports have been communicated to the students. Shown in the following pages are some screen shots from the report of AMCAT.

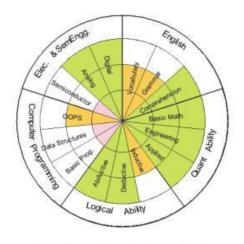


- AMCAT an intelligent adaptive test. Your AMCAT score is not equal to the number of questions answered correctly. The score is calculated by an advanced statistical engine, which takes into consideration questions difficulty, discrimination, guess probability and several other factors.
- The bar is a representation of your performance in the module. The tick in each bar represents the 50 percentile score of all candidates of your category.
- Score of one module should not be compared with the score of another, but should be compared against the 50 percentile point of that module.
- percentile point of that module.

   Your score is on a scale of 100 to 900 with 100 being the minimum and 900 maximum

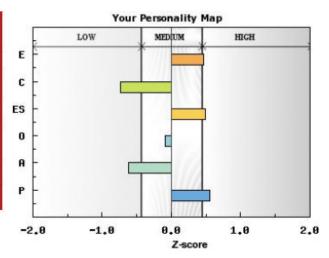
Job Profile	Your chance of selection for these job profiles.	Job profile criteria and areas to work on for improving your chances
		Engineering/IT Jobs
Design Engineer (Electronics & Semiconductor Engineering)	Medium	These companies look for good aptitude skills i.e. good scores in English, Logical and Quant section along with high scores in the domain of your engineering. You have to work hard in Electronics & Semiconductor Engineering.
Software Engineer- IT Services	High	These companies are basically looking for good English and Logical skills with average Quantitative ability.
Software Engineer- IT Product	Low	These companies are basically looking for good English, Programming and Logical skills with average Quantitative ability. You have to work hard in Computer Programming.
		Technical Operations
Associate- ITES/BPO	High	These companies look for candidates proficient in English with average Logical and Quantitative abilities.
Associate- ITES Operations (Hardware and Networking)  High These companies are basically lookin average Logical abilities.		These companies are basically looking for candidates with good English and average Logical abilities.

Module	Number of Questions Attempted	Score	Grade	National Percentile	College Percentile
English	25	490	В	56%	52.2%
Quantitative Ability	25	620	Α	86.1%	91.4%
Logical Ability	24	510	Α	67.2%	65.3%
Computer Programming	25	295	С	18.3%	10%
Electronics & Semiconductor Engineering	25	388	Α	79.7%	53.3%
Automata (Campus) - C	6	N.A.		Programming Ab	oility Score: N.A. ctices Score: N.A.



Performance Chakra: You have done really well in sub-modules marked in green, average in those in yellow and poorly in those in pink. If a section is without a color, it means you did not answer enough questions in the subsection to get an evaluation in it.

Trait	Region	Percentile	Z- score	
Extraversion	High	68%	0.47	
Conscientiousness	Low	23%	-0.73	
Emotional Stability	High	69%	0.49	
Openness to Experience	Medium	46%	-0.09	
Agreeableness	Low	27%	-0.62	
Polychronicity	High	71%	0.55	



#### Overall Performance of the students.

Aspiring minds also has provided a summary of the overall performance of the students who attended AMCAT, which is reproduced below.

**Table 2.25** 

	English(Perce ntile	Quantitati ve Ability (Percentile )	Logical Ability (Percentil e)	Computer Programmi ng (Percentile)	Computer Science(Percent ile)	Electronics & Semiconductor Engineering(Pe rcentile)
No. of Students with Percentile More than 75	29	23	24	21	13	31
No. of Students with Percentile More than 60	46	33	50	29	16	39

Agenda Notes: VI BOG 30 Jan 2015

The Expenditure incurred for the conduction of the AMCAT test is Rs 84,800 /-.

#### **Actions Sought**

The BOG may kindly take note of the academic activities held at the college and the expenditure incurred. The Action plans for various Academic activities may kindly be approved.

#### 2.5 Status of IRG Accounts

As of date, an amount of Rs.1163343/- has been deposited in the four Corpus Accounts for TEQIP-II of CE Cherthala. The split up is as below:

Corpus Fund 4,33,916/-Maintenance Fund 2,43,143/-Equipment Replacement Fund 2,43,142/-Faculty Development Fund 2,43,142/-

**Action Sought:** The BOG may kindly note.

#### 2.6 Report on Faculty Position

The list of permanent faculty members and contract faculty members of the College is attached as **Annexure IV**. At present there are 54 faculty members working in various Departments.

**Action Sought:** The BOG may kindly note the faculty position and faculty cadre ratio.

#### 2.7 Report on Expenditure incurred under various heads

The summary of expenditure incurred under various heads is shown in **Annexure V** 

Action Sought: The BOG may kindly note.

#### 2.8 Appointment of new personnel to the post of Data Entry Operator

Following the resignation of Smt Joyal Michael, application was called for to the post of Data Entry Operator for TEQIP cell at C.E.Cherthala. This was publicized in leading dailies, along with information relating to the qualifications required. Eight applications were received, out of which three applicants had the necessary qualifications. Data Entry Test and Interview was conducted to select the personnel. Smt Remyamol V S, who topped the selection process, was appointed to the post.

**Action Sought**: The BOG may kindly note and ratify the appointment.

## PART 3 **DISCUSSIONS**

Agenda Notes: VI BOG 30 Jan 2015

3.1 Report on visit of Mentor

The Hon'ble Mentor of C.E.Cherthala, Dr. P Pratapachandran Nair, visited the campus on 12.8.2014 and

13.8.2014 for the third round of mentoring. He interacted with the TEQIP Coordinators, faculty, technical

and office staff and UG and PG students. The next round of mentoring is scheduled for the first week of

February 2015. The report of the mentor is attached as **Annexure VI**.

Action Sought: The BOG may kindly discuss the Mentor's report.

3.2 Report on the visit of the Performance Auditor

The Performance Auditor of C.E Cherthala, Dr. S K Dhameja, Dean, NITTR, Chandigarh, visited the

campus during December 12-14, 2014. The Hon'ble Performance Auditor was to have visited the campus in

the month of November 2014. However his visit got delayed due to his international commitments.

Therefore the institute was not able to satisfy the condition of completing the second performance audit

before November 30, as directed by the NPIU. The Performance Auditor expressed great satisfaction at the

efforts put in by the College, which is reflected in the good grades that were awarded. The report of the

Performance Auditor is attached as Annexure VII.

**Action Sought:** The BOG may kindly discuss the Performance Auditor's report.

3.3 Report on Accreditation

The College is due to upload the Self-Assessment Report for Accreditation on the NBA Portal by February

2, 2015. The Self-Assessment Scores prepared by the Departments of Electronics Engineering and Computer

Engineering that are eligible to apply for accreditation are attached as **Annexure VIII.** 

Action Sought: The BOG may kindly discuss the Scores prepared by the respective Departments, evaluate

shortfalls and suggest remedial actions.

3.4 Report on Governance Development Plan

All Institutions were asked to prepare the initial Governance Development Plan and upload on the College

website. The institutional BOG members were asked to take lead in its preparation. The initial draft of the

Governance Development Plan of CE Cherthala has been prepared and sent to the SPFU and NPIU. It is

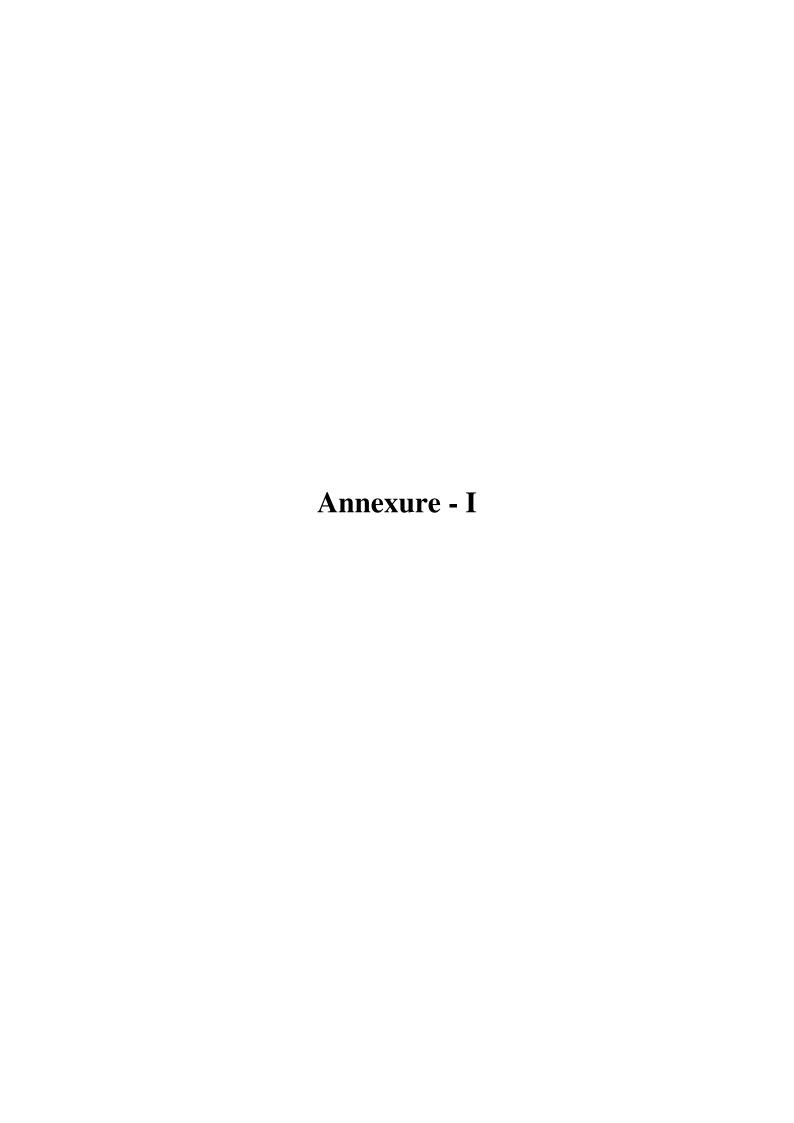
attached as Annexure IX.

**Action Sought:** The BOG may kindly discuss the draft of the GDP and give suggestions.

#### 3.5 Fixing the tentative date for the VII<sup>th</sup> BOG meeting of CE Cherthala.

**Action Sought**: The BOG may kindly fix tentatively the dates for the VII<sup>th</sup> BOG meeting.

### PART 4 OTHER ITEMS WITH THE PERMISSION OF THE CHAIR



### TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME Phase II Sub Component 1.1



### 5<sup>th</sup> MEETING OF THE BOARD OF GOVERNORS

#### **Approved Minutes**

Date: 05-09-2014

Time: 11.30 am

Venue: Seminar Hall, College of Engineering Cherthala

COLLEGE OF ENGINEERING CHERTHALA
PALLIPPURAM P.O., CHERTHALA-688 541, KERALA

Phone: +91 478 2553416

#### **AGENDA**

#### Part 1-Procedural

Sl. No	Items	
1.1	Confirming the Minutes of the 4 <sup>th</sup> Meeting of the Board of Governors held on 25-2-2014 at College of Engineering Cherthala, Alappuzha	
	Report on the action taken/action pending on the pertinent decisions in the	
1.2	Minutes of the 4 <sup>th</sup> Meeting of the Board of Governors held on 25-02-2014 at	
	College of Engineering Cherthala	

#### Part 2-Ratifications and Approvals

Sl. No	Items				
2.1	Ratific	ation of the agenda notes circulated on 1st July 2014			
2.2	Status	of procurement of goods			
2.3	Status	of various civil works packages			
2.4	Report	Report of various Academic activities			
	2.4.1	2.4.1 Report on ICIS 2014			
	2.4.2	In house FDP			
	2.4.3	2.4.3 Outstation FDP			
	2.4.4 Management Capacity Development Programmes				
	2.4.5 Papers published since IV <sup>th</sup> BOG				
	2.4.6	2.4.6 Staff Development Programmes- outstation			

#### **College of Engineering Cherthala**

2.4.7	Brief Report of the academic programmes	
2.4.8	TNA Plan for faculty and staff	
2.4.9	Student Activities under EAP	
2.4.10	Finishing School Activities	
2.4.11	Student Activities under IIIC	

#### Part 3-Reports

Sl. No	Items
3.1	Summary of expenditure as on 5-09-2014
3.2	Faculty position as on 5-09-2014
3.3	Report on Visit of Mentor
3.4	Report on status of Accreditation
3.5	Report on Grant recommended under RUSA

#### Part 4-Other items

Sl. No	Items		
4.1	Request to approve recruitment to the post of Data Entry Operator		
4.2	Request to authorize Prof. Jayadas C K, Associate Professor in Electronics Engineering to assume charge of Finance Coordinator in the interim		
4.3	Request to sanction expenditure incurred by faculty for registration to International Conferences to publish papers		
4.4	Any other items with the permission of the chair		

#### Part 5 Annexures

Sl. No	
1	Annexure 1: Minutes of the fourth BOG meeting held on 25.02.2014
2	Annexure 2: Agenda Notes Circulated by email on 1.7.2014
3	Annexure 3: Report by the mentor

#### Members present

- 1. Dr C P Girijavallabhan, Hon. Chairman.
- 2. Shri. M Sherif, Addl. Sec., H. Edn, Government of Kerala (State Govt. Nominee)
- 3. Dr. Philip Kurien, (University Nominee)
- ${\it 4.} \quad {\it Prof.} \ {\it Pradeep} \ M, \ {\it HOD}, \ {\it Electronics} \ {\it Engineering} \ {\it Dept.}$
- 5. Prof. Manilal D L, HOD, Computer Science and Engineering Dept.
- 6. Dr. P Suresh Kumar (Principal)

The following members of the BOG conveyed their inability to attend the meeting:

1. Dr VP Devassia, Principal Model Engineering College

- 2. Sri Jacob Mathew, Vice President, Idea Cellular
- 3. Shri Salim M K, MD, Assuretech, Technopark, Thiruvananthapuram
- 4. Shri James Joseph, Jt. Sec, Finance, Government of Kerala (State Govt. Nominee)

The following persons were specially invited to attend the BOG meeting

- 1. Dr P Pratapachandran Nair, Hon'ble Mentor of C.E Cherthala
- 2. Dr. V Gopakumar, Director, SPFU

Others present in the meeting,

- 1. Dr Vinu Thomas, TEQIP Coordinator
- 2. Dr. Jobymol Jacob, Academic Coordinator
- 3. Prof. Priyakumar T N, Coordinator, Civil Works Committee
- 4. Sri Sreekumar K, IIIC Coordinator
- 5. Sri Irshad Ali T K, M&E Coordinator
- 6. Sri Muhammed Ilyas H, Asst. Professor in CS
- 7. Smt. Greeshma N Gopal, Asst. Professor in CS & Coordinator, Finishing School

The meeting started with silent prayer at 11.30 AM.

The Hon'ble Chairman brought the meeting to order. The Chairman in his introductory note welcomed the BOG members. He expressed satisfaction at the progress in TEQIP-II activities in the college. He made a special mention about the paper presentation in the International Conference by Dr Vinu Thomas, TEQIP Coordinator. Thereafter, the Hon'ble Chairman invited the Principal to introduce the agenda for the 5<sup>th</sup> BOG meeting. Principal Dr P Suresh Kumar thanked the Hon'ble Chairman and presented the agenda for the meeting.

# 1.1 Confirmation of the Minutes of the 4<sup>th</sup> Meeting of the Board of Governors held on 25-02-2014 at CE Cherthala

The BOG confirmed the approved minutes of 4th Meeting of Board of Governors of CE Cherthala held on 25-02-14.

# 1.2 Report on the action taken/action pending on the pertinent decisions in the Minutes of the 4<sup>th</sup> Meeting of the Board of Governors held on 25-02-2014 at College of Engineering Cherthala

The BOG took note of the Action Taken Reports and approved.

#### 2.2 Ratification of the agenda notes circulated on 1st July 2014

The BOG ratified the items in the agenda notes which were circulated on 1<sup>st</sup> July 2014, by email. Dr. Pratapachandran Nair opined that for the conferences proposed to be held in the future, efforts should be made to get grants from other funding agencies as well. The BOG took note of this and approved.

The Hon'ble Chairman asked the TEQIP Coordinator Dr Vinu Thomas to recount his experience of travelling to the United States for presenting the paper in WAC 2014, under ITSS. The TEQIP Coordinator narrated his experiences. Sri M Sherif asked how the rest of the faculty benefitted by the International Travel and whether the experiences were shared with them. The TEQIP Coordinator replied that the experiences were shared with all faculty and that the entire procedure for ITSS was made familiar to everyone.

The BOG ratified both items in the circulated agenda notes.

#### 2.3 Status of procurement of goods

The BOG noted the progress in the procurement of the various packages, and approved the expenditure incurred till date. The BOG approved the revision in the package Airconditioners. The Hon'ble Chairman instructed that some experiments in various laboratories be conducted using LABVIEW. The Hon'ble chairman enquired what is the additional fund required to settle the pending expenditure in procurement and the academic activities. The Principal replied that

an amount of Rs 34 lakhs, in addition to the funds that are currently available, is required to settle the pending expenditure under various heads. The SPFU Director instructed to settle the pending expenditure at the earliest and write to the SPFU when additional funds are required after that.

The BOG approved the list of equipment to be cancelled and the new list of equipment to be purchased under procurement of goods, given below.

#### List of packages that are cancelled

Sl.No	Package Name	Package No.	Proc. Method	Status	Budgeted Amount (Rs.)
1	router + media convertor	TEQIP- II/KL/KL1G19/73	Shopping	Not Initiated	99,419.00
2	Audio system- smart class room	TEQIP- II/KL/KL1G19/83	Shopping	Not Initiated	1,40,000.00
3	Solar EnergyTraining System	TEQIP- II/KL/KL1G19/40	Shopping	Not Initiated	25,000.00
4	Qualnet + Sensor node network	TEQIP- II/KL/KL1G19/84	Shopping	Not Initiated	6,50,000.00

#### List of new packages that are added in the procurement plan

No.	Package	No. of Items	Approximate Price
1	Stabilizer (3 KVA) for A/c	24	75000
2	Phone	50	40000
3	Cabinets for keeping lab equipments	4	300000
4	Projector screen & Metal Box for housing cables	23+5	50000
5	Audio system smart class room + Auditorium	4+1	440000
6	Ebook (Springer)		610000
7	LCD Monitor	1	130000
8	ID Card Printer	1	100000
9	Label Printer	1	5000
10	Fire Safety equipment	15	300000
11	Lightning arrester for protection	for 3 buildings	800000

12	Vacuum Cleaner 1. Big 2. small	1+1	25000
13	Platform + Lectern	17	520000
14	N video card for CUDA	2	100000
15	Fire wall for the campus Network	1	400000
16	20 Mbps Internet connection from BSNL	1	65000
17	media converter	1	10000
18	Sensor network nodes	5	75000
19	Campus Automation software	1	500000
20	Electrical demonstrator & trainer module	8	134250
21	Cut sections of machine	3	80085
22	water purifier system	4	200000
23	Workshop tools	50	22600
24	Digital Multimeter	30	150000
	Total Amount		5131935

#### 2.4 Status of various civil works packages

The BOG took note of the progress in the various civil works packages and approved the expenditure incurred till date. The BOG discussed the various new packages proposed for civil works and gave its approval for initiating these packages on PMSS.

No	Civil Work Package	Estimate
1	Steel trussed soft roof for the entry to the research lab, for keeping footwear etc	19260/-
2	Steel staircase with hand grills for the newly constructed research lab	40880/-
3	To fix grills on all windows of the research lab and the extensions to the mechanical and electrical workshop	50000/-

#### 2.5 Report of the various Academic programs attended by faculty and staff

The BOG noted the various Academic programmes for faculty and staff conducted at the institute under the heads Faculty and Staff Development, Management Capacity Development and the student activities held under Equity Action, Finishing School and Industry Institute Interaction and approved their conduct and the expenditure incurred. The BOG noted the TNA

plan prepared and the publications by the faculty since the 4<sup>th</sup> BOG meeting. The BOG approved the conduct of ICIS 2014 by College of Engineering Cherthala and ratified the expenditure incurred. Sri M Sherif noted that the amount actually spent was less than the budgeted amount. The following suggestions were made by the BOG.

- 1. The SPFU Director Dr V Gopakumar noted that the number of programmes proposed to be conducted in the TNA plan, and the number of participants proposed for each programme, had to be realistic. The current TNA plan had too many number of programmes that could not be realistically completed, and the proposed number of participants was also very high. He therefore instructed the Academic Coordinator to prepare a realistic plan for TNA, especially in view of the fact that the project period has been extended. The BOG advised that the number of in house programmes be limited to four till November 2014, and the programmes maybe selected by the Department Heads from the list that is included in the agenda notes.
- 2. The SPFU Director Dr V Gopakumar informed the BOG that it was communicated by the NPIU that management capacity development programmes maybe attended by faculty only if it is conducted by institutes such as IISc, IITs, NITs, NITTRs etc. Therefore faculty training maybe permitted if they are organized by such institutions. He also recommended that training programs by organizations such as ESCI Hyderabad maybe put on hold until further instructions from the SPFU. The Hon'ble chairman suggested that programmes by CDAC may be approved. Sri M Sherif opined that a staff member be deputed for only one programme in the period till November 2014. BOG concurred with the above observations.
- 3. The SPFU Director Dr V Gopakumar asked to keep a statistic of the number of students who attend various EAP programmes in various categories such as SC/ST, OBC, Female etc. The SPFU Director Dr V Gopakumar also informed that the finishing school must be constituted with a coordinator, faculty members from each Department, a representative of the non-teaching staff and student representatives. He also informed that the performance indicator for the remedial classes is the number of students who have passed, and that for the soft skill training is the number of students who have been placed. He instructed the Academic Coordinator to prepare the data as above. The BOG approved this and asked to comply.

- 4. Dr Pratapachandran Nair asked that motivational training programmes be conducted for students of every year, and especially the first year students. The BOG approved this.
- 5. The SPFU Director Dr V Gopakumar informed that the College should sign an MOU with a hospital that has ambulance facility for the benefit of students, faculty and staff. He also said that there should be facility for consultation by a Doctor and Psychologist at least once per week, and there should be dedicated consultation rooms for this purpose. The BOG approved this and asked to comply.
- 6. The SPFU Director informed that for attending the pool placement drive for students of the TEQIP institutions organized by SPFU, the students needed to pass the employment eligibility test, for which the SPFU had suggested two agencies. The Principal replied that the College is planning to associate with Aspiring Minds, which is one of the two agencies suggested, on view of it being a nationally reputed agency. The Principal also informed that the placement training at present was being handled through Aesthetix, which had done a good job for improving the placements during the past two years. The BOG approved this.
- 7. Sri M Sherif opined that the contract faculty also be given the opportunity for attending training programmes, and that they may be permitted III AC travel by train for the purpose.

#### 3.1 Summary of expenditure as on 5.09.2014

The BOG noted the summary of expenditure incurred till date. The SPFU Director Dr. V Gopakumar reiterated that the payments for the pending procurement packages maybe completed at the earliest and that the institution should write to the SPFU when funds are exhausted. The BOG took note of this and approved.

#### 3.2 Faculty Position as on 24.02.2014

The Principal presented the current faculty position. The BOG took note of the same.

#### 3.3 Report on visit of the Hon'ble mentor

The BOG took note of the report by the Hon'ble mentor following his third mentoring visit to the institution. The Hon'ble Chairman and the SPFU Director enquired about the improvement in the faculty cadre ratio. The Principal replied that IHRD has initiated steps for promotion of eligible faculty.

#### 3.4 Report on status of Accreditation

The Principal reported that the current status of the steps taken to achieve accreditation by the NBA. The BOG took note of this.

#### 3.5 Report on Grant recommended under RUSA

The Principal reported that the institution has been recommended for a grant of Rs 2 Crore under RUSA, which was the highest among all IHRD institutions. The BOG commended the Principal for this achievement.

#### 4.1 Permission to recruit new personnel to the post of Data Entry Operator

The BOG approved the request to initiate steps to recruit a new Data Entry Operator in place of Smt. Joyal Michael who has resigned. Sri M Sherif reminded that proper procedure has to be followed for the recruitment.

# 4.2 Request to authorize Prof. Jayadas C K, Associate Professor in Electronics Engineering to assume charge of Finance Coordinator in the interim

The BOG ratified the decision to authorize Prof. Jayadas C K, Associate Professor in Electronics, to assume the charge of Finance Coordinator during the period Prof. Pradeep M is on leave for completing his research.

### 4.3 Request to reimburse expenditure by faculty for registration to International Conferences, where their papers have been accepted

The BOG decided that the expenditure incurred by faculty for registration to International and National Conferences and publication charges for publishing in journals, maybe met from the TEQIP funds.

### 4.4 Request to sanction the Principal and Heads of Departments financial powers for TEQIP-II activities

The BOG decided that the financial powers as directed in the project guidelines of TEQIP-II will be delegated to the Principal and the Heads of Departments.

#### Additional items taken up for discussion

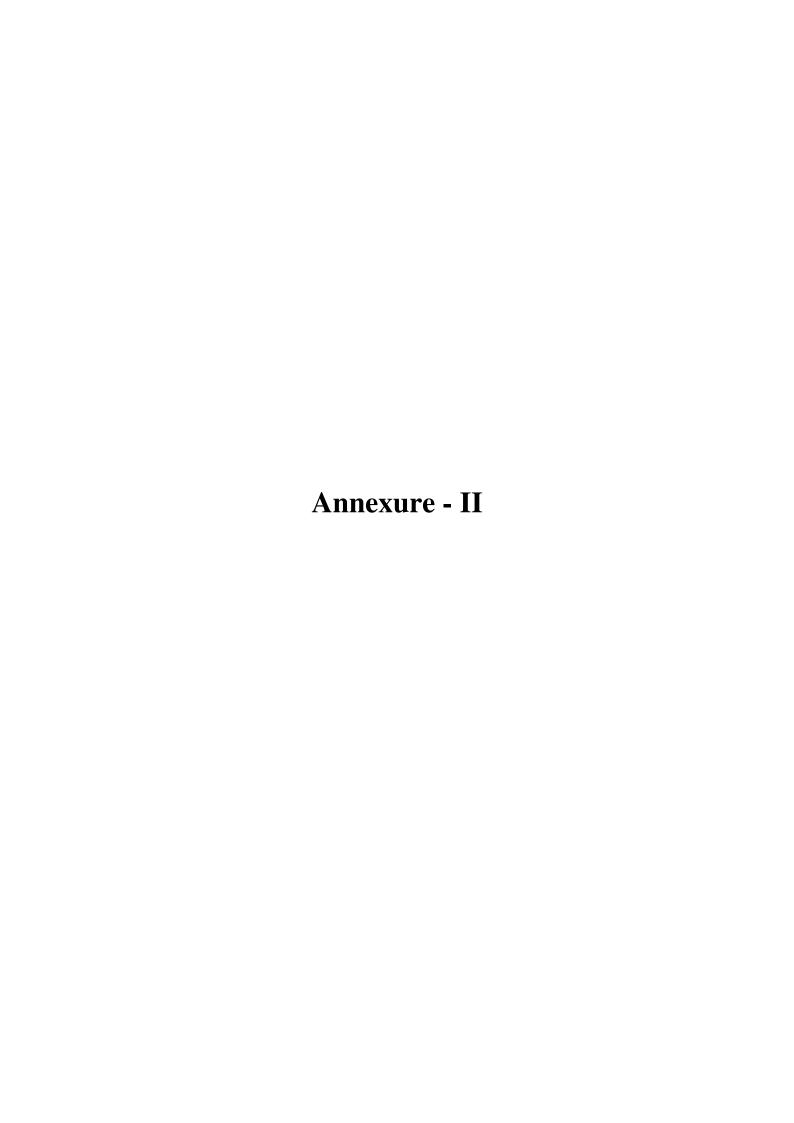
The SPFU Director Dr V Gopakumar opined that a master plan for the College of Engineering Cherthala be prepared, which should be comprehensive in terms of the college vision. The Principal replied that steps will be initiated and the status of the same will be reported in the next BOG meeting.

The Hon'ble Chairman in his concluding remarks appreciated the quality of the deliberations of the 5<sup>th</sup> BOG meeting. He thanked all the members for attending the meeting and contributing to it by their valuable suggestions and comments. He once again commended the Principal and the TEQIP Cell of CE Cherthala for their good work. He hoped that this good work would continue. The Hon'ble Chairman called the meeting to end at 2.30 PM.

Dr. C.P Girijavallabhan Chairman

T Plus gram

Dr. P Suresh Kumar Principal



#### NEW PROCUREMENT PACKAGES PROPOSED

1 Dreamspark Premium: Dreamspark Premium English 3 Year Online membership India:

Rs 1,70,000/-

2 Visual Presenter:: Document Camera

with Optical Zoom Lens Onboard AV Recording Image Storage

Input VGA:  $Rs.42000 \times 4 \text{ nos} = Rs \cdot 1,68,000/-$ 

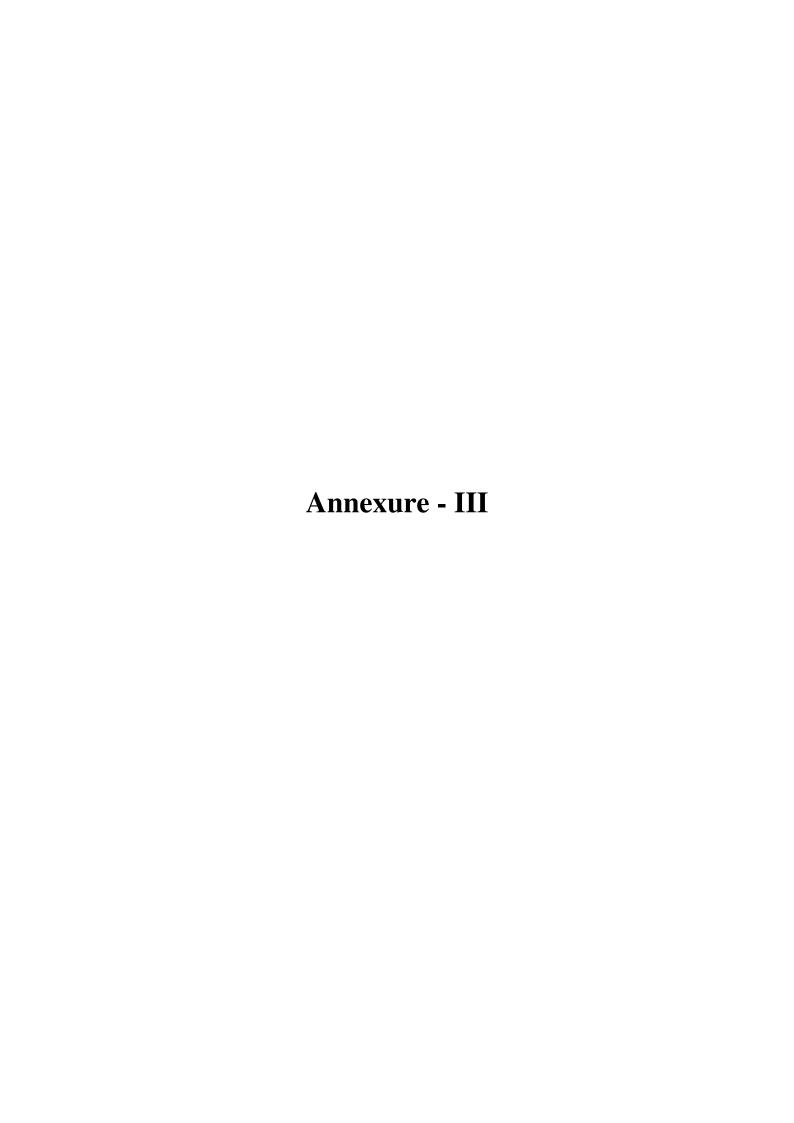
3 Surveillance system: night surveillance system

including camera and

accessories: Rs. 1,00,000

4 Information Display System – Rs 1,90,000

5 Access Engineering journal Rs 1,60,000



## TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME Phase - II

#### Terms of Reference (ToR)

For

Selection of Training Providers in Certified Java and android programming

Under
Technical Education Quality Improvement Program - Phase-II
October 2013

College of Engineering Cherthala Pallippuram P.O.

# Terms of Reference (ToR) for Technical Selection of Training Providers in Java and Android programming Under Technical Education Quality Improvement Programme - Phase-II

#### 1. BACKGROUND

The Ministry of Human Resource Development (MHRD), Government of India in the year 2002 conceived and designed the Technical Education Quality Improvement Programme (TEQIP) as a long term programme for implementation in 2 to 3 phases over duration of 10-12 years for systemic transformation of the technical education system. TEQIP Phase–I commenced in March 2003 and was successfully completed in March, 2009, covering 127 institutions. Encouraged by the highly significant achievements of Phase-I of the Programme, the Government of India has decided to implement Phase-II of the Programme through MHRD. A key component of the Phase-II Project is the support to weak students under Equity Action Plan. Under this plan, it is considered important that focused efforts be made by institutions to improve the academic performance of SC/ST/OBC academically weak students through innovative methods such as remedial teaching in professional subjects and soft skills development for increasing transition rate, pass rate and employability.

For increasing institutional focus on providing academic and guidance support to the SC/ST/OBC/ academically weak students, all project institutions are required to constitute a Finishing School with a senior faculty as coordinator. The key activities under the aegis of the Finishing School will be:

- a) Conducting remedial teaching throughout academic sessions for improving transition rate and pass rate of students,
- b) Conducting specialized soft skills and professional skills development training during semester-breaks and vacations (preferably starting from 5th Semester onwards) for increasing employability,
- c) Conducting high intensity training (of at least 4-weeks duration) for development of soft and professional skills in the students that graduate but fail to secure any employment, and
- d) Organizing campus interviews and making other efforts to secure employment for graduate engineers that complete the training under activity (c) above.

The Finishing School activities are to be conducted using the existing infrastructure, laboratories, workshops, computer centers, library and the existing faculty. Expertise from outside the institution and from employer organizations can also be used. There will be no course fee for students for either activity at (a) or (b) or (c). The benefit of activity at (c) of the Finishing School can be extended to graduate-engineers from other institutions in the vicinity who fail to secure employment. All students attending training under activity (c) will be responsible for their boarding and lodging arrangements and expenditure.

The activities of the Finishing School will be regularly supervised and monitored by the respective SPFUs and the NPIU, especially in respect of the number of students participating in the 4-week training and the percentage of these participants securing employment within 6 months of completion of training.

### 2. OBJECTIVES OF HIGH INTENSITY TRAINING ON JAVA AND ANDROID PROGRAMMING

The main objectives of TEQIP-II project are Strengthening Institutions to improve Learning Outcomes and Employability of Students. Many organizations visiting campuses for recruitment point out that the employability of students are not as expected due to poor communication and professional skills.

The broad objectives of high intensive training on "Java and Android programming" are

- a) To develop Mobile Applications with Google Android Platform.
- b) Android is a software stack for mobile devices that includes an operating system, middleware and key applications. The Android SDK provides the tools and APIs necessary to begin developing applications on the Android platform using the Java programming language. This training shall give the students to develop skills for creating and deploying Android applications, with particular emphasis on software engineering topics including software architecture, software process, usability, and deployment.
- c) To assist the Placement Cell of the College for a placement drive.
- d) To provide soft skill training

#### 3. SCOPE OF WORK

- a) The Project provides for hands on training of passed out students in Electronics and Communication Engineering and Computer Science Engineering Streams.
- b) The training is to be imparted in-situ (at the institutions) through two sections: 120 hours training on Java and Android programming and certification exam on Java and Android programming. The venue of the certification exam shall be arranged at CEC Cherthala, if feasible; or any other venue as suggested by the Provider.
- c) The details of the modules in terms of the elements of training; and the corresponding suggested modes of teaching & training, expected outcomes and duration are given at Annexure-1. The program aims to train 40 B.Tech. passed out students from this Institution.
- d) Training is to be imparted at Government Engineering College Cherthala in one batch of 40 candidates.
- e) The training providers will need to ensure coverage of all the elements identified for the course.
- f) The training providers are free to add more elements in main module that will be covered during the training, provided that these additional elements and additions to the contents can be covered within the stipulated duration of the training. The additional elements and contents are to be declared in the proposal submitted.
- g) The training providers are also free to suggest alternates to the suggested modes of training of various elements.
- h) To qualify for being selected, a training provider will need to demonstrate capability for the training in Java and Android programming and agree to provide the same at the institution and according to schedules as agreed with the College
- i) The training provider shall include the Java and Android programming certified students from CEC Cherthala in the placement drives that are conducted or facilitated by them.

#### 4. ELIGIBILITY AND CAPABILITY OF TRAINING PROVIDERS

- 1. Public and private training organizations are eligible to provide training.
- 2. The training provider should meet the following benchmarks:
  - Should be an Authorized Training Centre (ATC) of EC-Council
  - Minimum 3 years' experience in providing 'Java and Android programming 'training (please provide the copies of the credentials/ self-certificate for the last three years 2011-12, 2012-13, 2013-14; Ref. Annex-II,III).
  - All the training personnel should be Java and Android programming certified.
  - In addition to this, the firm should have at least 2 experienced resource persons (full-time or otherwise) with at least a Bachelor's Degree. Brief experience profile of at least 5 of the resource persons in the format given at Annexure-III must be provided.
  - The training provider will need to demonstrate that it possesses the capacity to impart training to about 2 batches of students in a year.
  - An undertaking (self-certificate) is to be submitted that there has been no outstanding bankruptcy, judgment or pending legal action that could impair operating as a going concern.
  - An Undertaking (Self Certificate) is to be submitted that the organization hasn't being black listed by any Central/State Government Department/Central Government Funded Organizations/State Government Funded Organization/World Bank, or other World Bank Organizations (including the UN Organizations) and is not under investigation by Government or UN Member State Government.

#### 5. SELECTION OF TRAINING PROVIDERS

A list of technically qualified Institutions will be finalized, following the procurement norms of TEQIP II. This process will involve short-listing all qualified institutions that responds to the Request for Expressions of Interest (EoI), inviting technical proposals from the short listed agencies, technical evaluation of proposals submitted by shortlisted agencies and final selection of agencies on the basis of technical competencies for the assignment.

#### 6. PAYMENT TO TRAINING PROVIDERS

Training will take place at the institutions as per the schedule. The training of students will be followed by a feedback session and a post-training assessment. The aggregated results of these will be made available to the respondents, Head of Institution and the training provider.

The contracted cost for any training package will cover training in all the elements, contents and modes as quoted in the proposal submitted to the College. The payment of this cost will be made in two installments. The first installment will be 75% of the contracted cost which will be paid after the successful completion of all the training modules. The second installment (25%) will be paid after six months of completion of the training program under the condition that 25% of students undergone training got placed within six months.

#### 7. COPIES OF RESPONSE

Respondents must submit one hard copy and one soft copy in CD, of their response to this invitation to the designated point of contact by the date and time specified in the invitation.

#### 8. ESTIMATED COST (NOT TO BE INCLUDED IN THE ToR)

Approximate cost per student for 120 hours is Rs.15000/- (Rupees Fifteen Thousand Only) (includes course materials, mock interviews, placement assistants etc....)

Total estimated cost is Rs.6,00,000/- (Rupees Six Lakhs Only)

#### 9. DESIGNATED POINT OF CONTACT

The Principal College of Engineering, Cherthala Pallipuram P.O, Alappuzha-688541

#### **Annexure I**

#### Java Track:

- Introduction to Java
- Java Design Goals & Concepts
- Java Tools
- The Java Language
- Object Oriented Java Programming
- Java Applets
- Java GUI Programming with AWT and swing
- Java Beans
- Introduction to Java Exceptions
- Threads
- Java Database Connectivity
- Networking with Java
- Enterprise Java Overview
- EJB (Enterprise Java Beans)
- Servlets
- JSP (Java Server Pages)
- Project

#### **Android:**

- Introduction to Mobile Technology
- GSM/GPRS/EDGE
- 1G/2G/3G/4G
- IEEE802.11
- ii. Infrared
- iii. Bluetooth
- Software Development for Mobile Device
- An Overview of J2ME
- Introduction to Android Open Source Project
- Getting Started with Android Technology
- Why Develop for Android
- Creating J2ME application
- Creating Your First Android Application
- Designing the User Interface
- Starting with Application Coding
- Validating and Handling Input Data
- Getting Persistent with Data Storage
- Animating Widgets and Layouts
- Styling Android Application Page 4 of 4

- Accessing Location Based Services Application
- Telephony and SMS
- Audio, Video and Using the Camera
- Publishing Android Application to Market

#### **Personality Development Training Module**

- 1. Leadership
- 2. Communication
- 3. Listening skills and (iv) Logical thinking

#### **Annexure-II**

Format for providing details of experience and resources of training provider

- 1. Name:
- 2. Address and Contact details:
- 3. Relevant Work Experience (experience related to providing Training on Java and Android programming)

Sl. No	Requirement	Please provide the relevant information summary in this format
1	No. of years into providing training in Java & Android	
2	No. of engineers trained so far and in how many batches	
3	No. of trainers engaged along with their CVs	

- **4.** An undertaking (self certificate) is to be submitted that there has been no outstanding bankruptcy, judgment or pending legal action that could impair operating as a going concern.
- **5.** An Undertaking (Self Certificate) is to be submitted that the organization has not been black listed by any Central/State Government Department/Central Government Funded Organizations/State Government Funded Organization/World Bank, or other World Bank Organizations (including the

UN Organizations) and is not under investigation by Government or UN Member State Government.

#### **Annexure III**

Format for experience profile of resource persons on the training provider's team

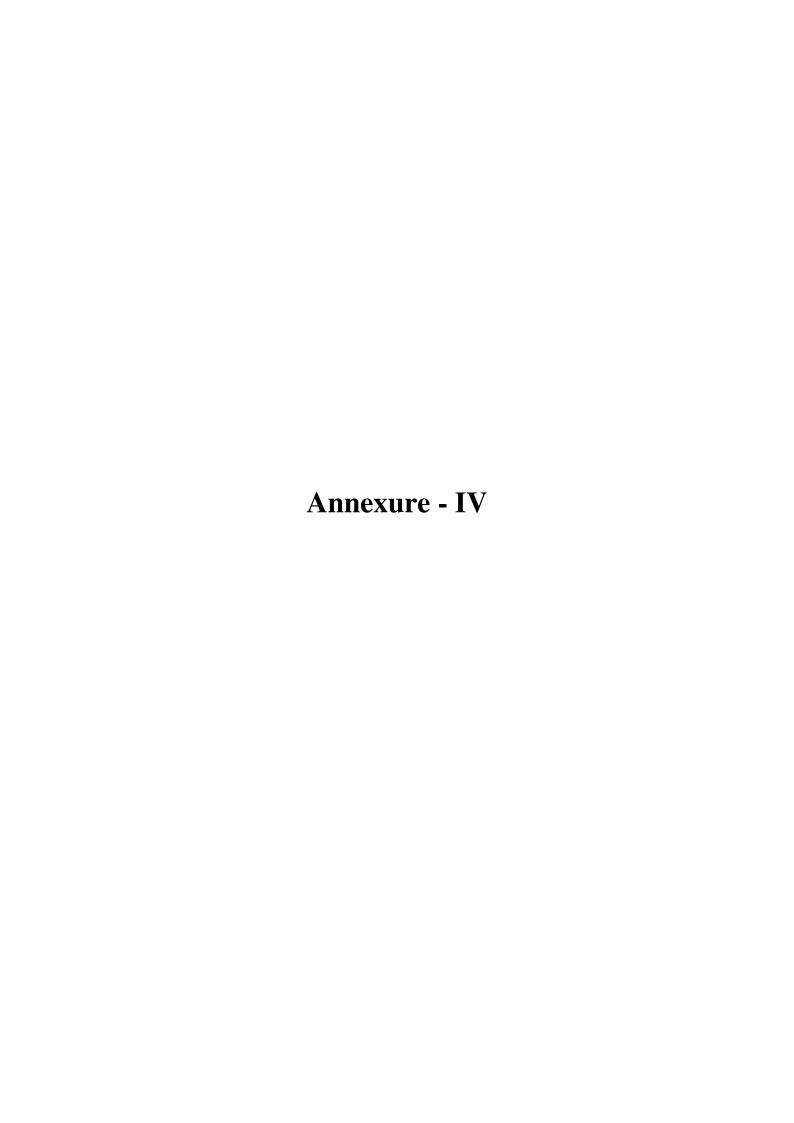
- 1. Name:
- 2. Address and contact details:
- 3. Educational Qualifications:
- 4. Present Employment, if any:
- 5. Past Employment record (employer, period of service, designation of the post occupied)
- 6. Relevant Work Experience (experience related to providing training in Java and Android programming to be given in the tabular format given below)

Sl. No	Duration	No. of students Trained	No. of Students Certified

#### **Annexure IV**

Format for the list of firms which recruited trainees of Java and Android programming and details of trainees who were placed.

Sl. No	Name of the Firm	Name of the Employee	Address of the Employee	Position in the Firm	Approximate Salary



#### List of Faculty: 2014-2015

	List of Permanent Faculty									
Sl.No	1.No Name Designation Status									
	Dr. P Sureshkumar	Principal								
1	Dr. Rajesh M.V.	Associate Professor in Electronics Engg.	LWA							
2	Dr. Vinu Thomas	Associate Professor in Electronics Engg.								
3	Dr. Jobymol Jacob	Associate Professor in Electronics Engg.								
4	Pradeep M.	Associate Professor in Electronics Engg.	On Leave							
5	Jayadas C.K.	Assistant Professor in Electronics Engg.								
6	Dr. Ashok Kumar T.	Associate Professor in Electronics Engg.								
7	Sreekumar K.	Assistant Professor in Electronics Engg.								
8	Irshad Ali T.K.	Assistant Professor in Electronics Engg.								
9	Jasleena C.	Assistant Professor in Electronics Engg.								
10	Anupama A.	Assistant Professor in Electronics Engg.								
11	Remya S.	Assistant Professor in Electronics Engg.								
12	Manilal D.L.	Associate Professor in Computer Engg.								
13	Rejin Joseph	Assistant Professor in Computer Engg.	LWA							
14	Mohammed Illiyas H.	Assistant Professor in Computer Engg.								
15	Anitha M.A.	Assistant Professor in Computer Engg.								
16	Sony P.	Assistant Professor in Computer Engg.								
17	Greeshma N. Gopal	Assistant Professor in Computer Engg.								
18	Janu R. Panicker	Assistant Professor in Computer Engg.								
19	Rajeevan A.K.	Assistant Professor in Electrical Engg.	QIP							
20	Elizwa Laiju	Assistant Professor in Electrical Engg.								
0.1	B 163									
21	Devanand C.N.	Assistant Professor in Mechanical Engg.	0							
22	Sreenivas P.	Assistant Professor in Mechanical Engg.	QIP							
23	Sandhya P. Gopal	Assistant Professor in Mechanical Engg.								
2.1	G 1 4 77 7									
24	Sarakutty K.J.	Associate Professor in Mathematics								
25	Priyakumar T.N.	Associate Professor in Mathematics								
26	Radha Balakrishnan	Assistant Professor in Mathematics								

#### **List of Contract Faculty**

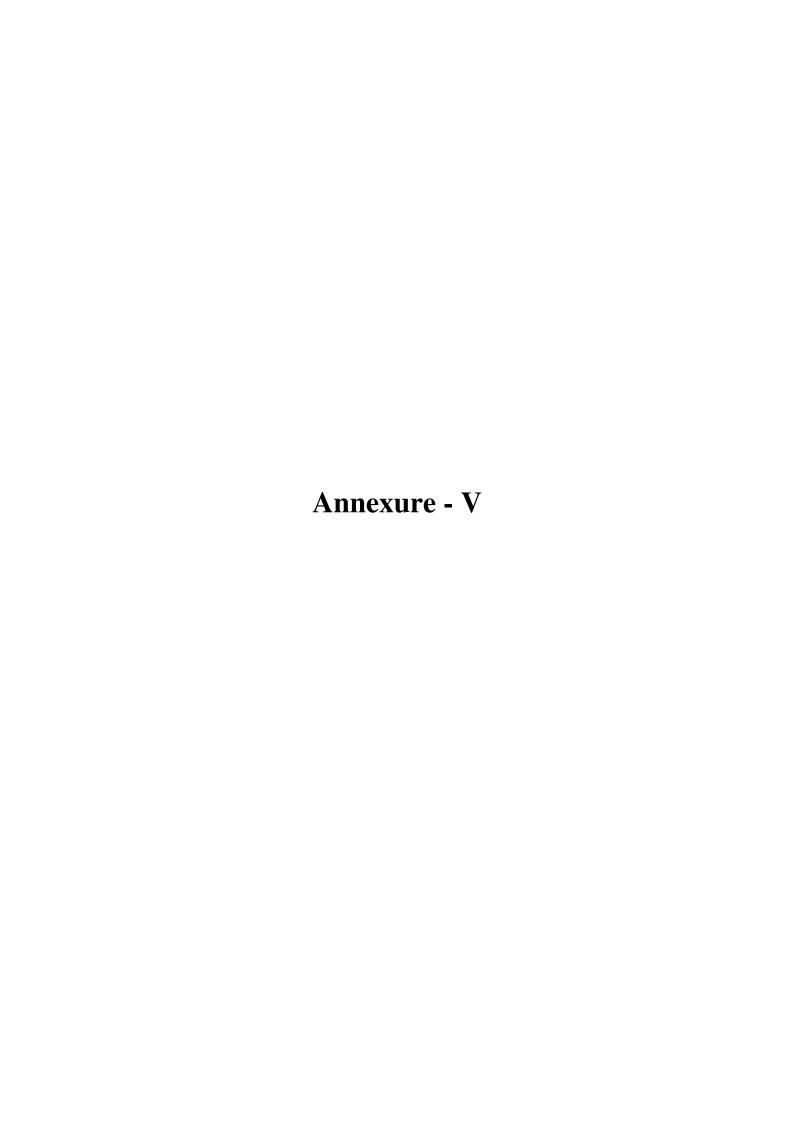
Sl.No.	Name	Designation
1	Lomin Joy V.	Assistant Professor in Computer Engg.
2	Pramod Mathew Jacob	Assistant Professor in Computer Engg.
3	Asha Thomas	Assistant Professor in Computer Engg.
4	Aswathy V. Shaji	Assistant Professor in Computer Engg.
5	Fathima N.	Assistant Professor in Computer Engg.
6	Josna Jose	Assistant Professor in Computer Engg.
7	Joyce Jose	Assistant Professor in Computer Engg.
8	Juddy Ann Joy	Assistant Professor in Computer Engg.
9	Meenu Mathew	Assistant Professor in Computer Engg.
10	Rohini T.M.	Assistant Professor in Computer Engg.
11	Athira S Kumar	Assistant Professor in Computer Engg.
12	<b>Suman Elizabeth Daniel</b>	Assistant Professor in Computer Engg.
13	Abdul Kareem V.	Assistant Professor in Electronics Engg.
14	Ajay Nath S.A.	Assistant Professor in Electronics Engg.
15	Jaffin Antony	Assistant Professor in Electronics Engg.
16	Mithun C	Assistant Professor in Electronics Engg.
17	Vishnu Pradeep K.	Assistant Professor in Electronics Engg.
18	Anjali R.	Assistant Professor in Electronics Engg.
19	Ashitha T.S.	Assistant Professor in Electronics Engg.
20	Rijimol Mathew	Assistant Professor in Electronics Engg.
21	Sreerag M	Assistant Professor in Electronics Engg.
22	Sreedhu T Sasi	Assistant Professor in Electronics Engg.
23	Teffi Francis	Assistant Professor in Electronics Engg.
24	Anaswara V Nath	Assistant Professor in Electronics Engg.
25	Archana V R	Assistant Professor in Electronics Engg.
26	Joymon Emmanuel	Assistant Professor in Electrical Engg
27	Meera E.	Assistant Professor in Electrical Engg.
28	Veena Mathew	Assistant Professor in Electrical Engg
29	Faizal K.	Assistant Professor in Mechanical Engg.
30	Prakash Sam Thomas	Assistant Professor in Mechanical Engg.
31	Karunakaran Akhil Dev	Lecturer in Environmental Sciences
32	Pratheesh P.K.	Lecturer in Physics
33	Jani Dev C.C.	Lecturer in Chemistry

The following table summarizes the Faculty Strength that is required as per AICTE norms, Sanctioned strength and the number of persons actually working in each cadre

No	UG Programs	No of Professo rs as per AICTE norms	No of Associat e Professo rs as per AICTE norms	No of Assistant Professo rs as per AICTE norms	Sanctione d strength of Professor s	Sanctione d strength of Associate Professor s	Sanctione d strength of Assistant Professor s	No of Professo rs actually present	No of Associat e Professo rs actually present	No of Assistant Professo rs actually present	Vacancie s of Professo rs	Vacancie s of Associat e Professo rs	Vacancie s of Asst Professor s
1	B.Tech in Electronics & Comm	1	5	18	1	4	13 Regular + 4 Temporar y Full Time	0	5	5 Regular + 11 contract	1	(-1) 1 Associate Professor posted against Professor' s vacancy	1
2	B.Tech in Computer Science & Engg	1	4	13	1	4	13 Regular + 1 Temporar y Full Time	0	1	5 Regular + 12 Contract	1	3	(-4) 4 Assistant Professors working against vacancies of Professor and Associate Professor
3	B.Tech in Electrical& Electronics	1	2	9	0	0	2 Regular + 1 Temporar y Full Time + 1 Temporar y Part Time	0	0	2 Regular + 3 Contract	1	2	2

No	PG Programs	No of Professo rs as per AICTE norms	No of Associat e Professo rs as per AICTE norms	No of Assistant Professo rs as per AICTE norms	Sanctione d strength of Professor s	Sanctione d strength of Associate Professor s	Sanctione d strength of Assistant Professor s	No of Professo rs actually present	No of Associat e Professo rs actually present	No of Assistant Professo rs actually present	Vacancie s of Professo rs	Vacancie s of Associat e Professo rs	Vacancie s of Asst Professor s
1	M.Tech in Electronics with specializati on in Signal Processing **	1	1	2	0	0	0	0	0	0	0	0	0
2	M.Tech in Computer and Information Science **	1	1	2	0	0	0	0	0	0	0	0	0

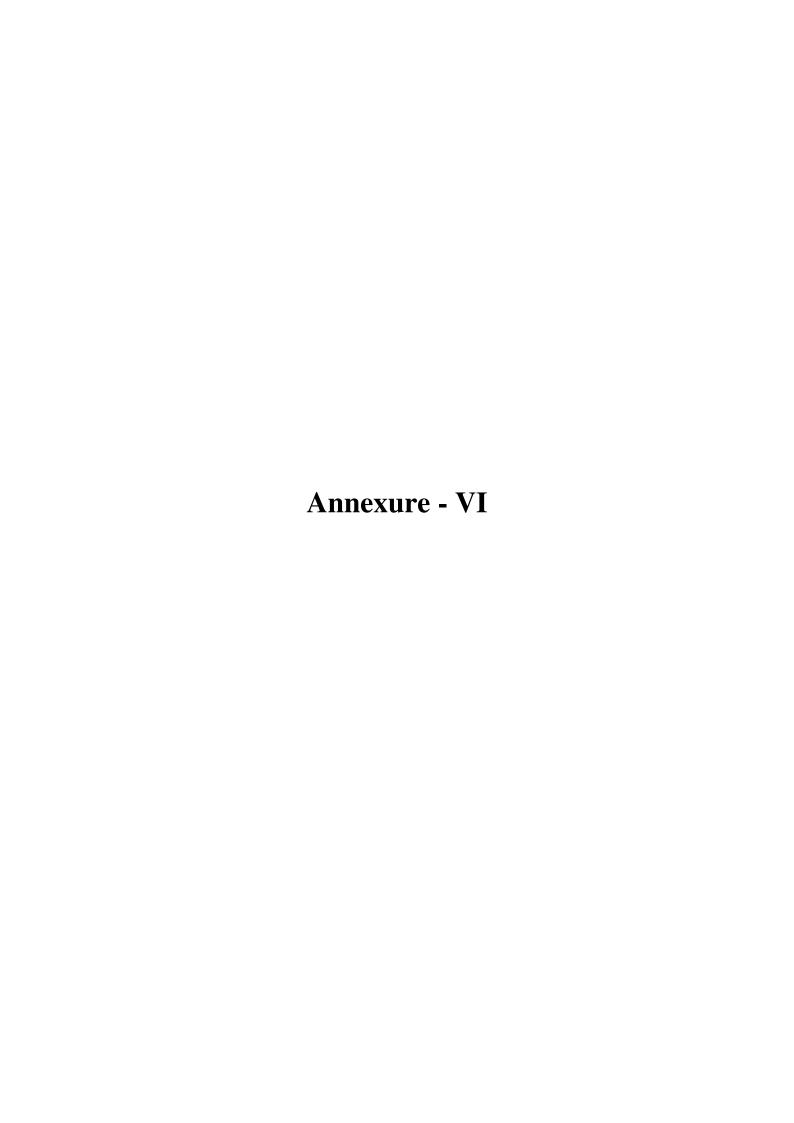
<sup>\*\*</sup> No Posts are created for the PG Programmes



#### **TEQIP-II**

### Receipts & Payments 5-Sep-2014 to 28-Jan-2015

Receipts	5-Sep-2014 to 28-Jan-2015	Payments	5-Sep-2014 to 28-Jan-2015
Opening Balance	2,16,93,341.00	Current Liabilities	1,28,940.00
Bank Accounts	2,16,93,341.00	Taxes Deducted A/c	1,28,940.00
Current Liabilities	76,654.00	Contribution to Labour Welfare Fund	21,383.00
Security Deposits	14,513.00	KVAT	64,791.00
Performance Security	14,513.00	Works Contract Tax Deducted	42,766.00
Taxes Deducted A/c	62,141.00	Current Assets	2,09,900.00
Contribution to Labour Welfare Fund	10,305.00	Loans & Advances (Asset)	2,09,900.00
KVAT	31,225.00	Advance to Employees	2,09,900.00
Works Contract Tax Deducted	20,611.00	Advance Paid to Anupama	20,500.00
Current Assets	1,61,900.00	Advance Paid to Elizwa Laiju	4,900.00
Loans & Advances (Asset)	1,61,900.00	Advance to Dr.Vinu Thomas	51,000.00
Advance to Employees	1,61,900.00	Advance to Greeshma N Gopal	2,500.00
Advance Paid to Anupama	2,500.00	Advance to Jobymol	95,000.00
Advance Paid to Elizwa Laiju	4,900.00	Advance to Manilal	21,000.00
Advance to Dr.Vinu Thomas	21,000.00	Advance to Pradeep	15,000.00
Advance to Greeshma N Gopal	97,500.00	Indirect Expenses	2,36,53,996.00
Advance to Manilal	21,000.00	Sub-Component 1.1	2,36,53,996.00
Advance to Pradeep	15,000.00	<b>Assistantships</b>	12,43,176.00
Indirect Incomes	10,07,629.00	Capacity Development	<i>5,864.00</i>
IRG - 2% of Students Fees	8,10,808.00	FSD	4,63,401.00
Interest Earned	1,90,490.00	Student Support	97,855.00
Interest Earned	1,85,959.00	<b>Incremental Operating Cost</b>	4,28,534.00
Interest From Corpus Fund	3.643.00	Consumables	64,900.00
Interest From Equipment Replacement Fund	296.00	Operation and Maintenance	2,76,864.00
Interest From Faculty Development Fund	296.00	<u>Salaries</u>	86,770.00
Interest From Maintenance Fund	296.00	Procurement	2,14,15,166.00
Other Income	6,331.00	Books & LRs & Software	12,88,362.00
Other Income	6,331.00	<b>Equipment</b>	1,72,90,469.00
Grant From SPFU	35,00,000.00	Furniture	7,64,860.00
Grant Received From SPFU	35,00,000.00	Minor Civil Works	20,71,475.00
Grant Hoodivod From OFF O		Closing Balance	24,46,688.00
		Bank Accounts	24,46,688.00
Total	2,64,39,524.00	Total	2,64,39,524.00



## **MENTOR'S REPORT FORM (1)**

NAME OF MENTOR: Dr. P. Pratapachandran Nair

DATES OF MENTORING VISIT: 12<sup>th</sup> & 13<sup>th</sup> August 2014

NAME OF INSTITUTION WITH LOCATION: College of Engineering, Cherthala

No.	SEVEN KEY ASPECTS	QUALITATIVE SUMMARY AND SUPPORTING EVIDENANCE OF PROGRESS COMPONENT1: IMPROVING THE QUALITY OF EDUCATION	PROGRESS SINCE PREVIOUS VISIT
1.1	STRENGTHENING INSTITUTIONS TO IMPROVE LEARNING OUTCOMES AND EMPLOYALIBITY OF GRADUATES	Cochin university had revised the curriculum and syllabi in 2012 and more electives are offered. 38 faculty were sent for subject updation programme and 15 FDP were conducted in the college. 2 staff development programmes were conducted in house and 9 supporting staff attended training programmes outside the institution. One International Conference on "Information Science" was successfully conducted by the Computer Science Dept. in July 2014. One faculty member presented a paper in the International conference WAC-2014 in Hawai, USA. Another faculty member presented a paper in the International conference held at TKM college of Engineering, Kollam. Laboratories have been modernized and 22 class rooms are provided with LCD projectors. 4 class rooms and one seminar hall are made smart. 36 students have been placed so far. Soft skill training is imparted to the final year students.	The result of the first year students has not yet come. Even though there is a slight decline in the cumulative result of the final year students, the overall result of the college is 4 <sup>th</sup> in the Cochin university. Pass percentage of the M. Tech CSE students is 83.3%
1.2	SCALING UP POSTGRADUATE EDUCATION AND DEMAND-DRIVEN RESEARCH, DEVELOPMENT AND INNOVATION	Two M. Tech programmes are offered in the college. 36 students are offered assistance ship. No additional courses are started. PG laboratories are modernized. Rail Net connection with 1 GBPS is provided. Campus networking is over. 2 faculty members are undergoing PhD programme and 1 for M. Tech programme under QIP.	Progress is seen.

1.2.1	ESTABLISHING CENTRES OF EXCELLENCE	Centre for excellence in Signal Processing is to be initiated.	Slight progress is seen
1.3	FACULTY DEVELOPMENT FOR EFFECTIVE TEACHING(PEDAGOGICAL TRAINING)	To be initiated	Action from SPFU is needed.
	СОМР	ONENT 2: IMPROVING SYSTEM MANAGEMENT	
2.1	CAPACITY BUILDING TO STRENGTHEN MANAGEMENT	4 senior members of faculty have undergone training in IIMs and 4 senior faculty have attended courses on "Accreditation"	Progress is observed.
2.1.1	IMPLEMENTATION OF GOOD INSTITUTIONAL GOVERNANCE	4 B.O.Gs had been conducted so far and the 5 <sup>th</sup> meeting is scheduled on 5 <sup>th</sup> September 2014. SDP for Good Governance has been prepared and sent to NPIU.	Progress is seen.
2.2	PROJECT MANAGEMENT, MONITORING AND EVALUATION	Governing body takes interest in the implementation of the project. Regular review meetings are held by SPFU, Kerala for monitoring the progress. One performance audit had been conducted in January 2014. The report seems to be satisfactory.	Progress is seen.

## **MENTOR'S REPORT FORM (2)**

NAME OF MENTOR: Dr. P. Pratapachandran Nair

DATES OF MENTORING VISIT: 12<sup>th</sup> & 13<sup>th</sup> August 2014

NAME OF INSTITUTION WITH LOCATION: College of Engineering, Cherthala

No.	LIST OF INTERVIEWS	KEY DISCUSSION SUMMARY POINTS
1.	UNDERGRADUATE STUDENTS	Transparent student evaluation. Online evaluation of teachers carried out twice in a semester and corrective actions based on the students feedback is taken. Only one industrial visit was carried out. More visits to be conducted. Placement activities to be improved. A new canteen is planned with PTA fund. A new stadium is planned using MLA fund. Hostels to be provided. More students to register in the professional societies like IEEE, CSI, IE (I), ISTE, etc.
2.	POSTGRADUATE STUDENTS	Bus facility to be improved. Industrial tie up is needed to get good projects.
3.	FACULTY	Mentoring of students to be improved. Industry institution tie up to be improved to get good projects and consultation activities. Shortage of regular faculty and filling up positions like Associate Professor, Professor, etc. Pedagogical training is yet to be arranged.
4.	SENIOR MANAGEMENT	Satisfactory progress in implementation of the project.
5.	MEMBERS OF THE GOVERNING BODY	External members were not available
6.	INDUSTRY REPRESENTATIVES	Not available
7	HEAD OF THE INSTITUTION	So far 5.5 crores was received. To meet the committed expenditure more fund is required. All 75 packages are initiated. Shortage of regular faculty and filling up the post of Professor, Associate Professor, etc. is to be urgently required since the institution is to upload the SAR for NBA accreditation of the courses by November 2014. Construction of hostels for boys and girls needs immediate attention.  Research laboratories to be set up in the disciplines where M. Tech Programmes are offered (ECE and CSE). Research proposals from faculty to be sent to Senior Research Advisor. Academic tie up with IITs or NITs to be initiated. Soft skill training to be given to the students from the first year onwards

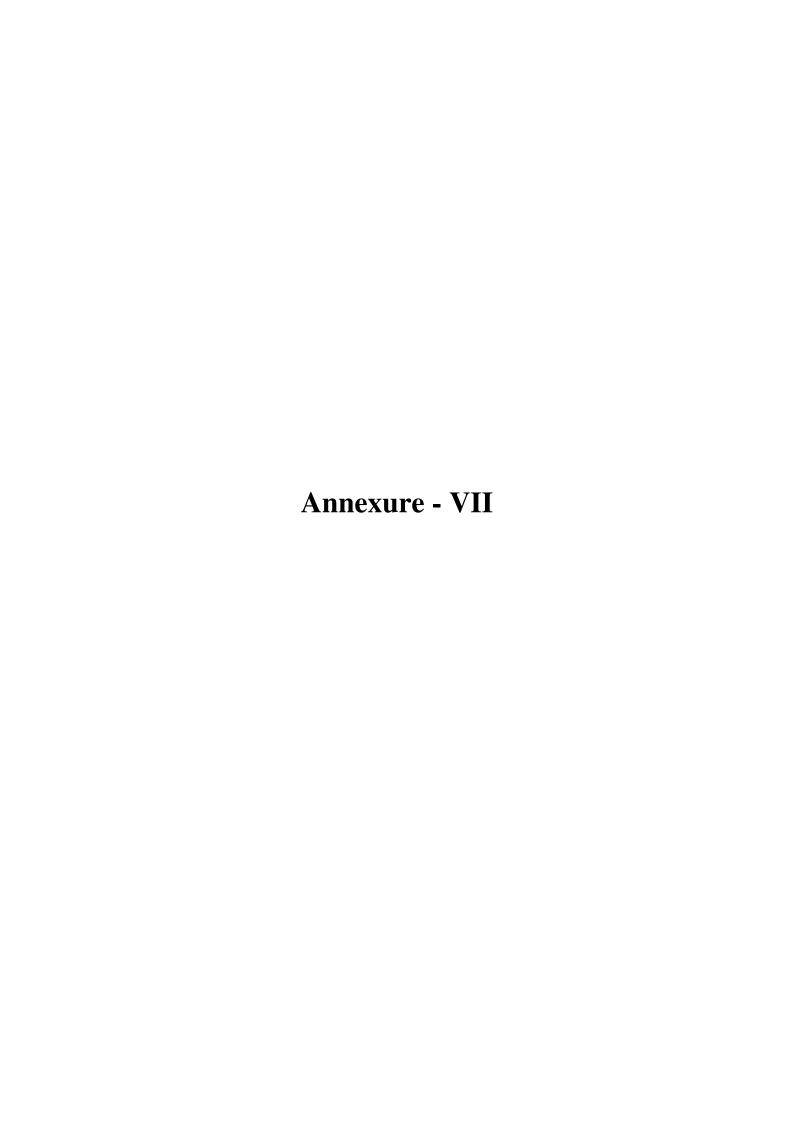
## **MENTOR'S REPORT FORM (3)**

NAME OF MENTOR: Dr. P. Pratapachandran Nair

DATES OF MENTORING VISIT: 12<sup>th</sup> & 13<sup>th</sup> August 2014

NAME OF INSTITUTION WITH LOCATION: College of Engineering, Cherthala

No.	RECORD OF KEY POINTS (Discussed with Head of the Institution, Chair of the Governing Body)	INSTITUTIONAL RESPONSE	NOTE OF ANY FOLLOW-UP NEEDED BY MENTORS, SPFU,NPIU
1.	Shortage of regular faculty and supporting staff. Filling up the posts of Professor, Associate Professor, etc.	The same was brought to the attention of the higher authorities.	Even though the problem was discussed in the Review Committee meetings, no action has taken place.
2.	Additional space requirement to offer new courses	One academic block funded by NABARD is to be completed by March 2015.	NA
3.	Lack of hostels for boys and girls	The same is brought to the notice of higher authorities	NA
4.	Pedagogical training for faculty	Brought to the notice of SPFU, NPIU	Urgent action from SPFU, NPIU is needed.



## **ANNEX4: PERFORMANCE AUDIT FORM (1)**

## Institutional Performance Profile AUDIT VISIT NUMBER: 2

Institutional Performance Profile: Dates of Performance Audit: **December 12-14, 2014** 

Name of the Performance Auditor: Dr Suresh Kumar Dhameja

Name of the Institution with location: College of Engineering Cherthala, Kerala

Date of Performance Visit: December 12-14, 2014

PIP REF	INSTITUTIONAL PERFORMANCE PROFILE	EVALUATIO N GRADES	
Comp	onent1: Improving the quality of education in selected institutions		
1.1	Strengthening institutions to improve learning out comes and employability of graduates	2	
1.2	Scaling-up post graduate education and demand-driven research and development and innovation		
1.2.1	Establishing centres of excellence		
1.3	Faculty development for effective teaching(pedagogical training)		
Comp	Component2: Improving system management		
2.1	Capacity building to strengthen management	1	
2.1.1	Implementation of good governance	1	
2.2	Project management, monitoring and evaluation		

	INSTITUTIONAL PERFORMANCE PROFILE GRADES AND GRADE DESCRIPTORS		
1.	Substantial evidence of good practice in the quality and standards achieved (Assessment identifies clear supporting evidence for at least 75% of the relevant practices.)		
2.	Some evidence of good practice in the quality and standards achieved (Assessment identifies clear supporting evidence for at least 50% of the relevant practices.)		
3.	Not in place (there may be one of the three primary reasons for this: a) no evidence can be found, b) there is evidence, but it is not of acceptable quality, or c) that there are plans for development but these have not yet taken place-in which case the auditor can indicate the expected date of completion/ implementation but the grade shouldremain3.)		

Note: Supporting evidence: The grade descriptors have two elements: one relating to the amount of the evidence (none, some or substantial); and one relating to the quality of the practice about which the evidence is gathered (is it good quality, or not?). So, for example, a grade of 1 means both that the evidence is good quality and that there is a substantial amount to demonstrate that it is of good quality (75% or more for the practices found).

## **ANNEX4: PERFORMANCE AUDIT FORM (1.1)**

#### COMPONENT1: IMPROVING QUALITY OF EDUCATION IN SELECTED INSTITUTIONS

Name of the Performance Auditor: Dr Suresh Kumar Dhameja

Name of the Institution with location: College of Engineering Cherthala

Date of Performance Audit: December 12-14, 2014

## 1.1: STRENGTHENING INSTITUTIONS TO IMPROVE LEARNING OUTCOMES AND EMPLOYABILITY OF GRADUATES

MONITORING AND PROJECT OUTPUT/OUTCOME PARAMENTERS	SUPPORTING EVIDENCE  (Note: Grades must be supported by sound evidence of achievement of the institutional development proposal goals and targets)
<ul> <li>A. Effectiveness of funds utilized for the teaching, training, learning and research equipment, library, computers, etc. by Institutions, including:</li> <li>Increase in the satisfaction index of student and faculty</li> </ul>	<ul> <li>Rs.5.5 Crores issued by NPIU till date. In addition Rs.35 Lakhs given by SPFU as temporary money</li> <li>Already spent Rs.5.7981 Crore</li> <li>No grievences received from the students except for hostel demand</li> <li>Regular interaction by principal/EAP coordinator with the students</li> <li>Regular faculty meetings by the principal. Minutes are recorded. No dissatisfaction received. Meetings are held once every month</li> <li>The institute can device a mechanism for ascertaining satisfaction index of faculty and students (on half yearly basis).</li> </ul>
<ul> <li>B. Obtaining Academic Autonomy status, including:</li> <li>Number of institutions that have obtained 'Autonomous Institution status' as per University Grants Commission process within 2 years of joining the Project, or</li> <li>Effectiveness of utilization of academic autonomy possessed / obtained</li> </ul>	<ul> <li>Applied to University for forwarding application for autonomous status to UGC</li> <li>University has forwarded the application to UGC and is under process at UGC.</li> <li>Applied for accreditation to NBA for eligible UG programmes in ECE and CSE</li> </ul>
(See Table-26 in PIP)	The institute makes proper use of the academic autonomy
<ul> <li>C. Effort made by Institutions for upgrading qualifications of faculty members, including:</li> <li>Percentage of faculty enrolled in MTech and PhD</li> </ul>	<ul> <li>Total faculty = 60 (26 regular, 24 contract faculty)</li> <li>For MTech one regular faculty has been sent and 5 B Tech faculty members have not been sent because there is a clause by IHRD Govt. of Kerala by which only 3 faculty members out of the 9 state engineering colleges can be sent for qualification enhancement.</li> <li>5 faculty members out of 26 regular faculty members are doing their PhD. 5 faculty members are already having PhD qualification. The remaining regular faculty members have not been sent for PhD because of the above regulation by IHRD Govt. of Kerala.</li> </ul>

Annex4: Performance Audit Form (2.1)

<ul> <li>D. Existing teaching and staff vacancies and effort made by Institutions for filling the vacancies, including:</li> <li>Percentage of faculty and staff positions filled and vacant</li> <li>Increase in faculty appointed on regular basis</li> </ul>	<ul> <li>Sanctioned faculty positions = 60</li> <li>In position 26 regular faculty members. The remaining positions have been filled by contract faculty members.</li> <li>Director IHRD has issued an order that all recruitments will be made after the staff pattern is finalized. This pattern has been finalized on 8/12/2014. So the process of selection of regular faculty will be started very soon.</li> <li>Almost all the sanctioned staff positions are already filled.</li> </ul>
<ul> <li>E. Effectiveness of equity at Institutional level, including:</li> <li>Transition rate of students from the First to the Second year in Under graduate programmes</li> </ul>	<ul> <li>The transition rate of first year B Tech students is 32.39% for all the three disciplines namely ECE, CSE and EEE.</li> <li>The reasons for lesser transition rate is the poor quality of student intake in the college in terms of their entrance rank (2012-13 intake)</li> <li>Mass failure of students for a particular subject (Engineering Mechanics) due to a different pattern of question paper.</li> </ul>
	Evaluation Gradefor1.1 Using the 3-point grading scale and grade descriptors in Annex4(1)

## **ANNEX4: PERFORMANCE AUDIT FORM (1.2)**

#### COMPONENT 1: IMPROVING QUALITY OF EDUCATION IN SELECTED INSTITUTIONS

Name of Performance Auditor: Dr Suresh Kumar Dhameja

Name of Institution with Location: College of Engineering Cherthala Dates of Performance Audit: December 12-14, 2014

#### 1.2: SCALING-UP POSTGRADUATE EDUCATION AND DEMAND-DRIVEN RESEARCH & DEVELOPMENT AND INNOVATION

MONITORING AND PROJECT OUTPUT/OUTCOME PARAMENTERS	SUPPORTING EVIDENCE  (Note: Grades must be supported by sound evidence of achievement of the institutional development proposal goals and targets)
<ul> <li>A. Effectiveness of funds utilized for the teaching, training, learning and research equipment, library, computers, etc .by the institutions ,including:</li> <li>Increase in the satisfaction index of student and faculty</li> </ul>	
B. Effectiveness of scaling-up Postgraduate Technical Education, including:     Increased enrolment for MTech and PhD     Establishment of proposed laboratories	
Cumulative number of assistantships granted	
C. Progress/ achievement in starting new Postgraduate programmes, including:  • Securing AICTE approval	Not Applicable
Establishment of laboratories	
Adequacy of student enrolments	
D. Effectiveness of collaborations made with other Institutions in India and abroad ,including  • Increase in number of co- authored publications in refereed journals	
E. Increased collaboration with industry in research and development, including     Increase in number of joint and industry sponsored research and development work under taken	

Increase in financial contribution by industry for R&D		
Increase in industry personnel registered for Master's and Doctoral programmes		
<ul> <li>Increase in industry personnel trained by the institution in knowledge and/or skill areas</li> </ul>		
Increase in the number of consultancy assignments secured		
Increase in the number of students' and faculty visits to and/or training in industry		
Improvements in graduate placement rate		
<ul> <li>Increase in involvement of industry experts in curricula &amp;syllabi improvements, laboratory improvements, evaluation of students and delivering expert lectures</li> </ul>		
Increase in the number of sandwich programmes between industries and the institution.	Not Applicable	
F. Increase in percentage of revenue from externally funded research and development projects and consultancies as a percentage of the total revenue of the institution formal sources		
G. Increase in the number of publications in refereed journals		
H. Increase in the number of patents filed		
	Evaluation Gradefor1.2 Using the3-point grading scale and grade descriptors in Annex4(1)	

## **ANNEX4: PERFORMANCE AUDITFORM (1.2.1)**

#### COMPONENT1: IMPROVING QUALITY OF EDUCATION IN SELECTED INSTITUTIONS

Name of Performance Auditor: Dr Suresh Kumar Dhameja

Name of Institution with Location: College of Engineering Cherthala

Dates of Performance Audit: December 12-14, 2014

#### 1.2.1 ESTABLISHING CENTRES OF EXCELLENCE

MONITORINGANDPROJECTOUTPUT/ OUTCOMEPARAMENTERS	SUPPORTING EVIDENCE  (Note: Grades must be supported by sound evidence of achievement of the institutional development proposal goals and targets)
A. Establishing Centres of Excellence     Improvement in Research and Development     facilities through:	Not Applicable
<ul><li> Procurement of furniture</li><li> Civil works</li></ul>	
	Evaluation Grade for 1.2.1 Using the3-pointgradingscaleandgrade descriptors in Annex4(1)

Annex4: Performance Audit Form (2.1)

## **ANNEX4: PERFORMANCE AUDIT FORM (1.3)**

### COMPONENT1: IMPROVINGQUALITYOFEDUCATIONINSELECTED INSTITUTIONS

Name of Performance Auditor: Dr Suresh Kumar Dhameja

Name of Institution with Location: College of Engineering Cherthala

Dates of Performance Audit: December 12-14, 2014

#### 1.3: FACULTY DEVELOPMENT FOR EFFECTIVE TEACHING (PEDAGOGICALTRAINING)

MONITORING AND PROJECT OUTPUT/OUTCOME PARAMENTERS	SUPPORTING EVIDENCE  (Note: Grades must be supported by sound evidence of achievement of the institutional development proposal goals and targets)
A. Effort made by Institutions providing Pedagogy Training to faculty, including:  • Percentage of faculty who have benefitted from the core and advanced modules of pedagogy training	<ul> <li>Only 2 faculty members have been sent for pedagogical come outcome based training.</li> <li>There is no state policy for pedagogical training.         SPFU Kerala must take initiative for pedagogical training (basic and advanced)     </li> </ul>
Improvements in (and/or updating, and more relevant) curricula and/ or syllabi	<ul> <li>Curricula was revised by CUSAT in 2012</li> <li>CUSAT revises the curricula every 4 years.</li> </ul>
Improvements in (and/or updating, more relevant) course assessment methods	<ul> <li>The institute takes formative assessment of students through a series of class quizzes and assignments</li> <li>In addition two series tests are given to students during the semester (1st test after completion of 50% of the syllabus and the 2<sup>nd</sup> test after completion of the remaining 50%)</li> <li>There is an end term examination at the end of the semester.</li> <li>As per CUSAT guidelines, 33% of marks are by internal assessments and remaining 67% through the end-term examination conducted by CUSAT</li> <li>For the internal 33%, the institute takes into account the attendance, formative assessment and the series tests.</li> </ul>
Improvements in teaching and learning methods, including provision for students needing extra/ remedial support	<ul> <li>Increased use of technology by faculty in classrooms in turns of use of powerpoints, classroom simulations</li> <li>The classrooms have been made ICT friendly by installing multimedia system and projector.</li> <li>Remedial support is being provided to the weaker students. Diagnostic tests have been conducted for identifying weak students and bridging programmes have been conducted to fill up the knowledge gap.</li> <li>Night classes are also being conducted as part of remedial measures.</li> <li>Pass percentage has increased as a result of remedial classes.</li> </ul>

Annex4: Performance Audit Form (2.1)

<ul> <li>Percentage of faculty with UG qualification registered/deputed for improving their qualification (see Section-3,4(b) on page 20 of PIP)</li> </ul>	<ul> <li>Total faculty = 60 (26 regular, 24 contract faculty)</li> <li>For M Tech one regular faculty has been sent and 5 B Tech faculty members have not been sent because there is a clause by IHRD Govt. of Kerala by which only 3 faculty members out of the 9 state engineering colleges can be sent for qualification enhancement.</li> <li>5 faculty members out of 26 regular faculty members are doing their PhD. 5 faculty members are already having PhD qualification. The remaining regular faculty members have not been sent for PhD because of the above regulation by IHRD Govt. of Kerala.</li> </ul>
<ul> <li>Percentage of faculty deputed for subject domain training, seminars, etc.</li> <li>(faculty are required to share their gains with peers and put reports on training on institution's website)</li> </ul>	<ul> <li>47 out of 60 faculty members have attended trainings ranging from 3 days to one week.</li> <li>17 faculty members have attended trainings for a duration of one or more weeks in various institutions like IITs, NITTTRs, ESCI Hyderabad etc</li> <li>There is a mandatory presentation by faculty (who has undergone training) amongst his colleagues in the department.</li> <li>The training reports are being submitted but so far not being uploaded on the institute website.</li> </ul>
<ul> <li>Progress in securing accreditation of eligible UG &amp; PG programmes         (institutions to achieve target of60% of eligible UG &amp; PG programmes accredited- applied for within 2 years of joining the Project)     </li> </ul>	<ul> <li>Of the three B Tech programmes, only two programmes (ECE and CSE) are eligible for NBA accreditation.</li> <li>The process has been initiated.</li> <li>Self-Assessment Report(SAR) of these two programmes will be uploaded in February 2015</li> <li>Both the M Tech programmes are not yet eligible for NBA Accreditation.</li> </ul>
<ul> <li>B. Effectiveness of Pedagogy Training, including</li> <li>Percentage of students satisfied with the quality of teachers and changes/ Developments specifically undertaken as a result of student evaluation</li> </ul>	<ul> <li>On an average more than 705 of the students are satisfied with the quality of teachers and the developments being undertaken as a result of student evaluations.</li> <li>The faculty members who are not favorably evaluated by the students are counselled by the HoDs and the principal. In certain cases, 2-3 counselling sessions have been conducted for some faculty members.</li> <li>Faculty members have been sent for training post-student evaluation.</li> <li>There has been significant improvements as a result of above measures.</li> </ul>
	Evaluation Grade for 1.3 Using The3-PointGrading Scale and Grade Descriptors in Annex4(1)

## **ANNEX4: PERFORMANCE AUDIT FORM (2.1)**

#### **COMPONENT2: IMPROVING SYSTEM MANAGEMENT**

Name of Performance Auditor: Dr Suresh Kumar Dhameja

Name of Institution with Location: College of Engineering Cherthala

Dates of Performance Audit: December 12-14, 2014

## 2.1: CAPACITY BUILDING TO STRENGTHEN MANAGEMENT

MONITORING AND PROJECT OUTPUT/ OUTCOME PARAMENTERS	SUPPORTING EVIDENCE (Note: Grades must be supported by sound evidence of achievement of the institutional development proposal goals and targets)
A. Implementation of academic and non-academic reforms, including:     • Improved understanding of the need and ways for increased autonomy, and new instruments for accountability	<ul> <li>Institute is exercising academic autonomy and some amount of financial autonomy also.</li> <li>The BOG periodically checks the progress of the institute and suggests corrective measures if necessary.</li> <li>Leadership capability of the principal is being regularly assessed by the BOG, although there is no formal mechanism.</li> </ul>
Modernization and decentralization of administration and financial management	<ul> <li>All the administrative and finance staff members have been provided with computers</li> <li>The software Tally has been purchased and is being used by the finance people</li> <li>The institute is getting a customized campus management software developed which will be used as a part of the modernization and decentralization process.</li> </ul>
Extent of delegation of administrative and financial decision making powers to senior functionaries	<ul> <li>For purchases more than 50 Lakhs the BOG is empowered, purchases from 1-50 lakhs are within the purview of the principal, HoDs are empowered to make purchases upto Rs.1Lakh</li> <li>All administrative powers are with the principal</li> <li>The HoDs exercise powers at the departmental levels.</li> </ul>
<ul> <li>Responsiveness to stakeholders (students, faculty, staff, industry, local communities)</li> <li>Institutional quality assurance and enhancement</li> </ul>	<ul> <li>The feedback of stake holders is taken during planning of any major activity</li> <li>The institute provides services to the local community. The students have been provided these services through NSS camps like blood donation camps, blood group identification camps and providing help to the orphanages. In addition the students clean the area outside the campus and a Red-Ribbon Day is also being organized for AIDS awareness. The students of the college have also been engaging computer classes in schools.</li> <li>The college has been chosen as a centre for ASAP (Additional Skills Acquisition Programme) by the Govt. of Kerala.</li> </ul>
strategies, including student feedback mechanisms  • Maintenance of academic and non-academic	<ul> <li>Evaluation of the faculty by students is done after every semester.</li> <li>This evaluation is online and cannot be fiddled with.</li> <li>For academically weak students, remedial classes have been organized.</li> </ul>

infrastructure and facilities ,including sufficiency and quality of academic buildings	<ul> <li>The buildings are not sufficient. The maintenance is also low because of the lack of funds from t</li> <li>The classrooms need to be renovated</li> </ul>	he state government.		
Development, maintain and utilization of institutional resources	The institute is utilizing the resources in an optimum manner			
Generation, retention and utilization of Income Revenue Generation.	<ul> <li>The institute generated an IRG of Rs.11.29 lakhs during 2013-14 by way of conduct of Faculty I Programmes and conference registrations. This IRG also includes 2% of the tuition fee which is four funds.</li> <li>The institute is not allowed to use this IRG amount till the end of TEQIP project.</li> </ul>			
Evaluation Grade for 2.1 Using the3-pointgradingscaleandgrade descriptors in Annex4(1)				

## ANNEX4: PERFORMANCE AUDIT FORM (2.1.1)

#### **COMPONENT2: IMPROVING SYSTEM MANAGEMENT**

2.1: Capacity building to strengthen management (continued)

#### 2.1.1: IMPLEMENTATIONOFGOOD GOVERNANCE

(See Also Annex4 of the Good Governance Guide for Governing Bodies for examples of supporting evidence)

MONITORINGANDPROJECTOUTPUT/OUTCOMEPARAMENTERS	SUPPORTING EVIDENCE (Note: Grades must be supported by sound evidence)		
Section A: Primary account abilities			
Has the Governing Body approved the institutional strategic vision, mission and plan- identifying acleardevelopmentpathfortheinstitutionthroughitslong-termbusinessplansand annual budgets?  (Give dates of governing body meetings where the minutes record these matters having been discussed, approved and/ or followed up.)	<ul> <li>The institute has its vision, mission and strategic plan which is approved the BOG.</li> <li>This vision, mission and the strategic plan is displayed in the college at strategic locations and also put up on the website.</li> <li>The departments have their own vision, mission and plans.</li> </ul>		
Has the Governing Body ensured the establishment and monitoring of proper, effective and efficient systems of control and accountability to ensure financial sustainability?  (Give dates of governing body meetings where the minutes record these matters having been discussed, approved and/ or followed up at the systems level.)	<ul> <li>The institute sends its academic and financial reports to the BOG and also to the government.</li> <li>BOG has been specifically created for TEQIP projects and it meets once every 3 months.</li> <li>So far the BOG had 5 meetings and it ensures the monitoring of proper, effective and efficient systems of control and accountability to ensure financial sustainability</li> </ul>		
• Is the Governing Body monitoring institutional performance and quality assurance arrangements?  (Give dates of governing body meetings where the minutes record these matters having been discussed, approved and/ or followed up at the systems level.)	• Yes		
Has the Governing Body put in place suitable arrangements for monitoring the head of the institution's performance?  (Give dates of governing body meetings where the minutes record these matters having been discussed, approved and/ or followed up.)	<ul> <li>The governing body has informal mechanism for monitoring the head of the insitution's performance</li> <li>It is recommended that a formal mechanism should be deviced by the BOG for monitoring the principal's performance</li> </ul>		
SUPPORTING OVERALL EVALUATION GRADE FOR 2.1.1A USING	G THE 3-POINT GRADING SCALE AND GRADE DESCRIPTIONS IN ANNEX 4(1)		

TEQIP Hand book for Mentors and Performance Auditors

Annex4: Performance Audit Form (2.1)

Section B:Openness & transparency in the operation of governing bodies	
• Does the Governing Body publish an annual report on institutional performance?  (Give the publication date and type of publication of the most recent annual report, if there is one)	<ul> <li>The institute prepares an annual financial report which is sent to the BOG for its verification and approval</li> <li>The institute does not publish the annual report and nowhere it is being put over the website.</li> </ul>
<ul> <li>Does the Governing Body maintain, and publicly disclose, a register of interests of members of its governing body?</li> <li>(Give that a formal register is not yet normal practice in colleges, provide evidence of any published information on governing body members 'financial and commercial interests)</li> </ul>	<ul> <li>Yes</li> <li>The details of the members of the governing body have been put on the institute website</li> </ul>
• Is the Governing Body conducted in an open a manner, and does It provide as much information as possible to students, faculty, the general public and potential employers on all aspects of institutional activity related to academic performance, finance and management?  (Say whether the governing minutes are published on the institution website, and note any other steps that the governing body takes to communicate with its stake holders on its work as a Board)	• Yes
SUPPORTING OVERALL EVALUATION GRADE FOR 2.1.1B USING T GRA	HE 3-POINT GRADING SCALE AND ADE DESCRIPTIONS IN ANNEX 4(1)

Section C: Key attributes of governing bodies	
• Are the size, skills, competences and experiences of the Governing Body, such that it is able to carry out its primary account abilities effectively and efficiently, and ensure the confidence of its stake holders and constituents?  (Specify the range of skills and experience that the members of the governing body, and especially the external members, have)	<ul> <li>Yes</li> <li>The governing body comprises of a chairman (academician) 2 industry representatives, 3 academicians, principal as ex-officio member and 2 government nominees.</li> </ul>
<ul> <li>Are the recruitment processes and procedures for governing body members rigorous and transparent?</li> <li>(Specify how governing body members are selected, and whether that process is transparent)</li> </ul>	<ul> <li>Yes</li> <li>The recruitment processes and procedures for governing body members are rigourous and transparent and the body is being constituted by Govt. of Kerala.</li> </ul>

<ul> <li>Does the Governing Body have actively involved independent members and is the institution free from direct political interference to ensure academic freedom and focus on long term educational objectives?</li> <li>(Give examples, where possible, of the role of external members in improving the performance of the institution)</li> </ul>	The governing body regularly invites director of SPFU and NPIU mentor under TEQIP II to participate in all the meetings.
<ul> <li>Are the role and responsibilities of the Chair of the institution and the Member Secretary serving the governing body clearly stated?</li> <li>(If yes, specify the document where these roles are defined)</li> </ul>	<ul> <li>Yes</li> <li>It is put up on the institute's website</li> </ul>
Does the Governing Body meet regularly? Is there clear evidence that members of the governing body attend regularly and participate actively?  (State the number of meetings in the last year, and the average number of those Board members present and those members absent at those meetings)	• Yes
SUPPORTING OVERALL EVALUATION GRADE FOR 2.1.1C US	ING THE 3-POINT GRADING SCALE AND GRADE DESCRIPTIONS IN ANNEX 4(1)
Section D:Effectiveness and performance review of governing bodies	
• Does the Governing Body keep their effectiveness under regular review and in reviewing its performance, reflect on the performance of the institution as a whole in meeting its long-term strategicobjectives and its short-termindicators of performance/success?  (If yes, give the date(s) of governing body meetings where the minutes show that such are view has been	• Yes
Does the Governing Body ensure that new members are properly inducted, and existing members receive opportunities for further development as deemed necessary?  (If yes, give examples of how these two tasks are carried out)	• Yes
SUPPORTING OV	ERALL EVALUATION GRADE FOR 2.1.1D E AND GRADE DESCRIPTIONS IN ANNEX 4(1)

Section E:Regulatory compliance			
the Governing ensure regulatory compliance* and, subject to this, take all final decisions on lamental matters of the institution.  • Yes, the governing body ensures regulatory compliance and final decisions on the fundamental matters of the intuition			
(If yes, give the date(s) of governing body meetings where the minutes show that regulatory compliance has been discussed)			
Does the regulatory compliance include demonstrating compliance with the 'not-for-profit' purpose of education institutions?	• Yes		
(If yes, give evidence that the governing body has been directly involved)			
Has there been accreditation and/or external quality assurance by a national or professional body? If so, give name, current status of accreditation etc.	To be applied		
(Provide lists of all courses which have already been accredited, all courses where an application has been made, and all courses where no such application has yet been made)			
SUPPORTING OVERALL EVALUATION GRADE FOR 2.1.1E USING THE 3-POINT GRADING SCALE AND GRADE DESCRIPTIONS IN ANNEX 4(1)			
	Over all Evaluation GradeforGovernance2.1.1 A-E Using the3-pointgradingscaleandgrade descriptors in Annex4(1)		

## **ANNEX4: PERFORMANCE AUDIT FORM (2.2)**

#### **COMPONENT2: IMPROVINGSYSTEMMANAGEMENT**

Name of Performance Auditor: Dr Suresh Kumar Dhameja

Name of Institution with Location: College of Engineering Cherthala

Dates of Performance Audit: December 12-14, 2014

## TABLE2.2: PROJECT MANAGEMENT, MONITORING AND EVALUATION

MONITORING AND PROJECT OUTPUT / OUTCOME PARAMENTERS	SUPPORTING EVIDENCE  (Note: Grades must be supported by sound evidence of achievement of the institutional development proposal goals and targets)			
<ul> <li>A. Effectiveness of mentoring, reviews, surveys and audits conducted ,including:</li> <li>Increase in the achievement of the institutions goals and targets set out in the Institutional Development Proposal</li> </ul>	<ul> <li>The institute has achieved 80% of the stated targets of institutional development proposals including procurements.</li> <li>Two PG courses as outlined in IDP have yet to be started for want of enough space. A new building block is being constructed and will be completed by March 2015. These two PG courses namely M Tech in Power Systems (Electrical Engineering), M Tech in Manufacturing Management (Mechanical Engineering) are expected to start from next academic session 2015-16.</li> <li>The institute had planned for purchase of equipment worth Rs.5 crores out of which Rs.4.5 crores have been spent on the purchase of targeted equipment. The remaining amount of Rs. 50 lakhs is being used for the purchase of 20 new software packages after taking the approval of the BOG.</li> </ul>			
B. Effective project management and monitoring, including:     • Precise and reliable information/ data through web based MIS available to stake holders at all time	<ul> <li>Yes</li> <li>Available on the institute's website and can be accessed by all the stake holders.</li> </ul>			
C. Effectiveness of faculty evaluation by students, including:     Percentage/increase in percentage of faculty evaluated by students in one or more subjects	• All 100%			
Are results of evaluation properly used for teacher improvement?  If yes, is the procedure adopted for teacher improvement including counseling appropriate and effective?	<ul> <li>Yes</li> <li>Faculty members getting less evaluation marks are being counselled by the HoDs and principal on regular basis and have also been sent for training, wherever required. As a result the performance of these teachers have improved.</li> </ul>			
	Over all Evaluation Gradefor2.2 Using the3-pointgradingscaleandgrade descriptors in Annex4(1)			

## ANNEX4: (FEEDBACK)

#### PERFORMANCE AND DATA AUDIT FEEDBACK

(Feedback to the institution, state project facilitation units, the national project implementation unit / and relevant Mentor)

Name of Performance Auditor: Dr. Suresh kumar Dhameja Dates of Performance Audit: 13/12/2014

Name of Institution with Location: College of Engineering Cherthala

Key points feedback by the Performance Auditor to the institution at the end of the visit-against the seven aspects of evaluation

- The institute should take up the matter of pedagogical training for faculty members (basic and advanced module) with SPFU on urgent basis.
- Selection of regular faculty members against the vacancies need to be expedited.
- Institute must take up the issue of sanction of funds for construction of additional buildings, hostels and renovation of
  existing buildings with the Govt. of Kerala.
- The institute should get complete academic, administrative and financial autonomy as per the goal of TEQIP II.
- Industry-Institute-Interaction activities need to be strengthened and regular involvement of industry needs to be ensured.
- The placement activities for both UG and PG students need to be strengthened.
- Sponsored research and development and consultancy projects should be under taken by the faculty members for their self-improvement and enhancing IRG by the institution.
- Certain basic facilities like more number of washrooms/toilets, separate staff toilets, waiting room for girl students, all weather road connecting all buildings of the institute, canteen facilities need to be upgraded.
- The library has been equipped with adequate number of books and as per the feedback of students they are satisfied.

Key improvements noticed on short comings reported during earlier Performance Audits

- The teaching-learning process was found to be improved
- Evaluation of faculty members by students have been streamlined and necessary corrective actions are being undertaken.
- There has been improvements in the conduct of remedial classes.

Brief statements on continuing short comings, and reasons

- Industry-Institute interaction activities need further improvements
- Placement activities of UG and PG students need to be improved.
- Pedagogical training of faculty members need to be started.
- · Canteen and drinking water facilities need to be improved.

#### **Recommendations for Mentors**

- To take up the issue of pedagogical training with SPFU Kerala.
- Suggest ways and means for enhanced Industry-Institute interaction.
- Improvement of placement of UG and PG students need to be given consideration.
- Exhort the faculty members to take up sponsored research and development and consultancy activities.

# ANNEX4: (DATA AUDIT FORMS1-8) DATA AUDIT FORMS

Name of the Data Auditor: **Pradeep R**Dates of Data Audit: 11/12/2014

Name of Institution with Location: College of Engineering Cherthala, Alappuzha (Dist), Kerala

## DATA AUDIT FORM (1)

No.	Particulars	Figure in MIS	Year	Verified figure	Institutional data source*	Comments <sup>t</sup>
1	Information in respect to bachelors programmes in engineering/technology					
	a. Number of UG programmes conducted during the latest academic year	3	2014-15	3	AICTE/Universi ty affiliation letters	
	b. Total number of UG students during the latest academic year	807	2014-15	807		
	c. Total number of women students in UG programmes during the latest academic year	444	2014-15	444		
	d. Total number of SC students in UG programmes during the latest academic year	44	2014-15	44	College Admission Register	
	e. Total number of ST students in UG programmes during the latest academic year	1	2014-15	1		
	f. Total number of OBC students in UG programmes during the latest academic year	570	2014-15	570		
	g. Percentage of final year UG students during the latest academic year placed through campus interviews	15.42%	2013-14	15.42%	Placement Records	Placement activities of 2014-15 are going on
	h. Percentage of final year UG students during the latest that passed out with 75% or more aggregate marks	20.57%	2013-14	20.57%	University Result	

i. Percentage of all 1 <sup>st</sup> year students [asat1(b)] during the latest that passed all courses fully and successfully got admitted to 2 <sup>nd</sup> year in the 2012-13 academic year	32.29%	2012-13	32.29%	
j. Percentage of 1 <sup>st</sup> year women students [asat1(c)] during the latest academic year that passed all courses fully and successfully got admitted to 2 <sup>nd</sup> year in the current academic year	35.23%	2012-13	35.23%	
k. Percentage of 1 <sup>st</sup> year SC students [asat1(d)] during the latest that passed all courses fully and successfully got admitted to 2 <sup>nd</sup> year in the current academic year	0	2012-13	0	Examination Result of 2013-14 yet to be published by University. However all first ye
1. Percentage of 1 <sup>st</sup> year ST students [asat1(e)] during the latest that passed all courses fully and successfully got admitted to 2 <sup>nd</sup> year in the current academic year	0	2012-13	0	students will be promoted to 2 <sup>nd</sup> year as CUSAT rules. They have to clear all the subjects by 4 <sup>th</sup> semester.
m. Percentage of 1 <sup>st</sup> year OBC students [asat1(f)] during the latest that passed all courses fully and successfully got admitted to 2 <sup>nd</sup> year in the current academic year	35.04%	2012-13	35.04%	

<sup>\*</sup> This could include how the figure was calculated if appropriate.

t For example, if there are any discrepancies in the figures—the reasons, or whether information is being updated by the institution and if so, when?

## DATA AUDIT FORM (2)

No.	Particulars	Figure in MIS	Year	Verified figure	Institutional data source*	Comments <sup>t</sup>
2	Information in respect to masters programmes in engineering/ Technology					
	a. Number of full-time Masters programmes during the latest academic year	2	2014-15	2	AICTE/University affiliation letters	
	b. Number of part-time and sandwich(Joint)Masters programmes during the latest academic year	Nil	2014-15	Nil		
	c. Total number of students enrolled for all Masters programmes during the latest academic year	96	2014-15	96	Admission Register	
	d. Number of faculty in-house enrolled for Masters programmes during the latest academic year	0	2014-15	0		
	e. Number of students enrolled for all Masters programmes during the latest academic year with scholarship	49	2014-15	49	Admission Register	GATE, SC/ST lumpsum grant etc.
	f. Number of students enrolled for all Masters programmes during the latest academic year with TEQIP assistantship	43	2014-15	43	Payment Register	
	g. Total number of women students in all Masters programmes during the latest academic year	77	2014-15	77		
	h. Total number of SC students in all Masters programmes during the latest academic year	8	2014-15	8	College Admission	
	i. Total number of ST students in all Masters programmes during the latest academic year	0	2014-15	0	Register	
	j. Total number of OBC students in all Masters programmes during the latest academic year	53	2014-15	53		
	k. Percentage of final year Masters students during the latest academic year placed through campus interviews	8.33%	2014-15	8.33%	Placement Records	Placement activities of 2014-15 are going on
	1. Percentage of final year Masters students during the latest that passed out with 75% or more aggregate marks	70.82%	2013-14	70.82%		

<sup>\*</sup> This could include how the figure was calculated if appropriate.

t For example, if there are any discrepancies in the figures—the reasons, or whether information is being updated by the institution and if so, when?

## DATA AUDIT FORM (3)

No.	Particulars	Figure in MIS	Year	Verified figure	Institutional data source*	_ t
3	Information in respect to doctoral programmes	No PhD Programme in the Institution				
	a. Number of Doctoral candidates on rollup to November 30, 2014			NA		
	b. Number of in-house faculty enrolled for Doctoral programmes during the latest academic year			NA		
	c. Number of students enrolled for Doctoral programmes during the latest academic year with scholarship			NA		
	d. Number of students enrolled for Doctoral programmes during the latest academic year with TEQIP assistantship			NA		

## DATA AUDIT FORM (4)

No.	Particular s	Figure in MIS	Year	Verified figure	Institutional data source*	Comments <sup>t</sup>
4	Information in respect to Faculty		1	l		
	a. Total number of regular full-time faculty excluding adjunct and emeritus faculty during the latest academic year	26	2014-15	5 26	Attendance Register / Salary	
	b. Total number of regular full-time faculty in engineering disciplines excluding adjunct and emeritus faculty during the latest academic year	23	2014-15	5 23	statement	
	c. Number of regular full-time faculty in engineering disciplines with Masters degree as their highest qualification excluding adjunct and emeritus faculty during the latest academic year	13	2014-15	13		
	d. Number of regular full-time faculty in engineering disciplines with  Doctoral degree as their highest qualification excluding adjunct and emeritus faculty during the latest academic year	4	2014-15	5 4	Degree Certificates	
	e. Number of regular full-time faculty in engineering disciplines with Bachelors degree as their highest qualification faculty during the latest academic year	6	2014-15	6		
	<ul> <li>f. Number of faculty with Bachelors degree which are enrolled in-house for Masters programmes in parent institution during academic year the latest: <ol> <li>(i) Engineering teachers</li> <li>(ii)Applied Science teachers</li> <li>(iii)Other teachers</li> </ol> </li> </ul>	0 0 0	2014-15	0 0 0		
	<ul> <li>g. Number of faculty with Bachelors degree which are enrolled in-house for Masters programmes at other institutions during academic year the latest: <ol> <li>(i) Engineering teachers:</li> <li>(ii)Applied Science teachers:</li> <li>(iii)Other teachers:</li> </ol> </li> </ul>	1 0 0	2014-15	1 0 0	Admission Letter (NIT, Calicut)	
	h. Number of faculty with Masters degree which are enrolled in-house for PhD programmes in parent institution during academic year the latest:  (i) Engineering teachers  (ii)Applied Science teachers  (iii)Other teachers	0 0 0	2014-15	0 0 0		

<ul> <li>i. Number of faculty with Masters degree which are enrolled in-house for PhD programmes at other institutions during academic year the latest:</li> <li>(i) Engineering teachers</li> <li>(ii) Applied Science teachers</li> <li>(iii) Other teachers</li> </ul>	0 0 0	2014-15	0 0 0		2 faculties are undergoing PhD programme at CUSAT (Enrolled last year)
j. Number of faculty that have attended a professional training programme of 5 or more days duration during the latest academic year	17	2014-15	17	Course	
k. Number of all faculty(irrespective of specialization)that have attended the Basic Module of pedagogy training during the latest academic year	2	2014-15	2		2 faculties attended FDP on "Outcome Based Learning and Teaching".
1. Number of all faculty(irrespective of specialization)that have attended both the Basic and Advanced Modules of pedagogy training during the latest academic year	0	2014-15	0		To be conducted by SPFU / NPIU
m. Number of faculty appraised by students during the latest academic year	26(100%)	2014-15	26(100%)	Student Evaluation Sheet	

<sup>\*</sup> This could include how the figure was calculated if appropriate.

t For example, if there are any discrepancies in the figures-the reasons, or whether information is being updated by the institution and if so, when?

## DATA AUDIT FORM (5)

No.	Particulars	Figure in MIS	Year	Verified figure	Institutional data source*	Comments
5	Information in respect to Accreditation of Programmes					
	a. Number of UG programmes accredited					
	b. Number of UG programmes for which accreditation applied for	2	2013-14	2		Institution has applied for accreditation for 2 eligible programs in 2013.
	c. Number of UG programmes accredited					Fee remitted to NBA in November 2013. SAR to be uploaded by February 2015.
	d. Number of UG programmes for which accreditation applied for					

## DATA AUDIT FORM (6)

No.	Particulars	Figure in MIS	Year	Verified figure	Institutional data source*	Comments <sup>t</sup>
6	Information in respect to research and patents					
	a. Number of research publications in Indian refereed journals during the latest academic year	0	2014-15	0		
	b. Number of research publications in International refereed journals during the latest academic year	10	2014-15	10	Int Jnls available on	
	c. Number of research publications co-authored with faculty/researchers/industry experts from outside the institution	1	2014-15	1	Internet	
	d. Number of patents in engineering related are as obtained during the latest academic year	0	2014-15	0		
	e. Number of patents in engineering related are as filed during the latest academic year	0	2014-15	0		
	f. Number of sponsored research project completed during the latest academic year	0	2014-15	0		
	g. Number of MOUs signed for collaborative programmes with Indian industry and R&D organizations	4	2014-15	4	MOUs	One MOU signed during the year and the other three signed last year having validity for 2 years.
	h. Number of MOUs signed for collaborative programmes with International academic institutions and R&D organizations	0	2014-15	0		

<sup>\*</sup> This could include how the figure was calculated if appropriate.  $\mathbf{t}$  For example, if there are any discrepancies in the figures-the reasons, or whether information is being updated by the institution and if so, when?

#### DATA AUDIT FORM (7)

	Particulars	Figure in MIS	Year	Verified figure	Institutional data source*	Comments
	Information in respect to finances					
	a. Amount received as Block Grant during the latest academic year (Rs.in Lakhs)	2.85cr	2014-15	2.85cr		4 <sup>th</sup> & 5 <sup>th</sup> installments of TEQIP
	<ul> <li>b. IRG<sup>s</sup> from student's tuition fee and other charges during the latest academic year(Rs.in Lakhs)</li> </ul>	10.76L	2014-15	10.76L		2% tuition fee of the year 2014-15 - 8.11 lakhs, FDP & Conference registration charges and bank interest up to 09.12.2014
	c. IRG from externally funded R&D projects and consultancies during the latest academic year(Rs.in Lakhs)	0	2014-15	0		
	d. Total IRG during the latest academic year(Rs.in Lakhs)	10.76L	2014-15	10.76L		
	e. Total annual recurring expenditure during the latest academic year (Rs.in Lakhs)	405.40	2013-14	405.40		2014-15 To be finalized at the end of financia year
	f. Amount available in Corpus Fund on December 9, 2014	Rs.425416/-	2014-15	Rs.425416/-		2% students fee deposited on all four funds equally
-	g. Amount available in Faculty Development Fund on December 9, 2014	Rs.234642/-	2014-15	Rs.234642/-	Bank Account	
	h. Amount available in Equipment Replacement Fund on December 9, 2014	Rs.234642/-	2014-15	Rs.234642/-	Statement	
	i. Amount available in Maintenance Fund on December 9, 2014	Rs.234643/-	2014-15	Rs.234643/-		

#### DATA AUDIT FORM (8)

No.	Particulars	Figure in MIS	Year	Verified figure	Institutional data source*	Comments <sup>t</sup>
8	With respect to institutional governance/management					
	Number of Governing Body meetings held during the latest academic year(with minutes on the web)	2	2014-15	2 .	BOG Minutes	
	b. Number of institutional functionaries (Deans, HoDs, senior faculty and senior officials)that have undergone Management Capacity Enhancement training	4	2014-15	4	Course Certificates	

Aly Onders a.

<sup>\*</sup> This could include how the figure was calculated if appropriate.

t For example, if there are any discrepancies in the figures-the reasons, or whether information is being updated by the institution and if so, when?

§ IRG is the total revenue of the institution in a year, whether retained or not

## TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME-II (TEQIP-II)

INSTITUTION RESPONSE FORMS (1) (To be sent from the Head of the Institution to the performance Auditor, 2 weeks before an audit visit)

	PROJECT IMPLEMENTATION					
No.	INSTITUTIONAL MONITORING AND PROJECT OUTPUT/OUTCOMES	RESPONSES				
1.1	Briefly describe the actions taken for obtaining Autonomous Institution status, and the status of your applications as made.	<ol> <li>Applied to the University for forwarding application for autonomous status to the UGC</li> <li>University has forwarded the application to UGC and is under process at UGC.</li> <li>Applied for accreditation for the eligible UG programmes in CSE,ECE</li> </ol>				
1.2	If your institution is already an Autonomous Institution, briefly state actions taken for the following:	Institution is financially autonomous and partially academic autonomous.				
	1. Value addition to courses as per market demand	Curriculum is framed by CUSAT and revised in every four year as per market demand. Last revision was in 2012. Principal is a member of various academic bodies in CUSAT.				

	2. Improvements introduced in student evaluation	<ul> <li>Formative and Summative evaluation methods have been adopted for evaluation of student.</li> <li>Staff Advisory system and peer groups are in place. 3 series test per semester (2 compulsory and one additional).</li> <li>Facility for student counseling by qualified psychologist.</li> <li>Remedial classes have been arranged for academically weak students.</li> <li>Night classes during study holidays.</li> </ul>
	3. Addition of electives	Freedom to chose electives from the curriculum of CUSAT
	4. Carrying out teacher evaluation by students	Online teacher evaluation is conducted twice in a semester.
	5. Starting of new PG programs, as planned	Procurement of equipments and software for new PG programmes is progressing.
	6. For enhancing qualification, deputing to other institutions and/or admitting within the institution those teachers that have a Bachelors degree only	One seat in each PG Programme is reserved for faculty from IHRD.
	7. Conducting continuing education and/or skill enhancement programs for industry	Planned.
	8. Inviting experts from industry and eminent institutions for special lectures	Already 3 programs were conducted and more is planned.
1.3	The amount of financial powers assigned / delegated to the following. If no delegations has been done so far, state the proposed action for each level with the corresponding timeline:	Yes
	1. Governing Body	Above 50 lakhs
	2. Head of Institution for: (a) single purchase of equipment, and (b) recurrent expenditure	50 Lakhs
	3. Dean	As per existing staff pattern, no post of Dean at CE Cherthala.
	4. Heads of Department	1 lakh

1.4	Progress in starting new PG programs, as proposed	Procurement of equipments and software for new PG
1.5	Actions taken to fill up seats in the existing PG programs	programmes is progressing.  1. All the PG seats are filled.
		2. Assistantship for an amount Rs 6000 per month is given to non GATE students
1.6	Actions taken to reduce vacancies in faculty positions	Contract Faculty are appointed against the vacancies.
1.7	Status of faculty appointed on regular basis, and proposed actions to fill up all faculty positions on regular basis	Number of regular faculty: 26 Proposed Action plan to fill up faculty positions:  • IHRD had intimated that recruitment of new faculty to entry cadre and promotions of existing faculty will be effected after the staff pattern for the institution is finalized. The staff pattern has been finalized in the Governing Body of IHRD held on 9.12.2014. The recruitments, promotions and general transfer to fill vacancies is expected soon.
1.8	Progress in getting pedagogical training in both the modules	It was informed that the institute does not have to organize pedagogical training as the SPFU will organize the same. Two junior faculty, Anupama A of the EC Department and Greeshma N Gopal of the CS Department, have attended pedagogical training organized by the Department of Management, College of Engineering Trivandrum.
1.9	New Activities (since project start or the last performance audit) undertaken for enhancing interaction with industry	

1.10	Generation, retention and utilization of the non-tuition fee revenue generated through various activities	Generation: through ICIS 2014, FDPs, workshops, seminars etc. An amount of <b>Rs. 11,29,343.00/-</b> has been generated so far.  Retention: The amount is retained by the institute in the four funds of TEQIP.  Utilization: The amount shall be utilized after the project period.
2.1	Progress in instituting practice of teacher evaluation by students	Two teacher evaluation/semester are being conducted. The procedure is online.
2.2	Current percentage of teachers evaluated by students in one subjects taught	100
2.3	Current percentage of teachers evaluated by students in more than one subjects taught	100
2.4	State the incentives being offered to the faulty for participation in consultancy assignments, R&D, and continuing education programs conducted by the institution for industry	<ul> <li>Since the Institute is located in remote area, some constraints are there in obtaining consultancy work.</li> <li>Requests for seed money to undertake projects have been received. Will be finalized in the meeting of the RGC to be held in January 2014.</li> <li>Dr Vinu Thomas is undertaking a project for Early detection of Breast Cancer using Mammograms, sponsored by the KSCSTE, Govt. of Kerala, the sanctioned fund being 11.4 lakhs. LAKESHORE Hospital Kochi is associating with the work.</li> </ul>
3.1	Are the 4 funds established?	Yes.
3.2	If yes, what is the amount in each fund?	Account is opened on 30.1.2014 Maintenance fund: Rs.234643.00/- Corpus fund: Rs.425416.00/- Faculty Development Fund: Rs.234642.00/- Equipment replacement fund: Rs.234642.00/-
3.3	Is the contribution to each fund as per the requirement in the PIP?	Yes.

3.4	State the quantum of financial powers delegated to: (a) Governing Body; (b) Head of Institution; (c) Deans, and (d) Heads of Departments	A)Governing Body: Above 50 lakhs B)Head of the Institution: Up to 50 Lakhs C) Dean: As per existing staff pattern, no post of Dean at CE Cherthala. D)HoD: 1 lakh
3.5	If less than those recommended in the PIP, state the reasons for the shortfall, and actions planned to comply with the project recommendations.	
4.1	Number of ongoing sponsored projects from industry	
4.2	Number of industry awarded consultancy assignments completed	
4.3	Number of ongoing industry awarded consultancy assignments	==
4.4	Number of organizations and industries with whom MOUs have been signed for joint R&D	3 MoUs.
5.1	List the UG programs accredited on date by name	Applied for accreditation of two eligible UG programmes.
5.2	State program-wise action taken to get accredited the eligible UG program that are yet to be accredited.	<ul> <li>For CSE,ECE Programs:</li> <li>Submitted the application fee</li> <li>Initiated steps to fill up faculty positions</li> <li>Construction ongoing under NABARD scheme for increasing the built up area</li> <li>Represented IHRD for recruitment and promotion.</li> <li>Proposal submitted under RUSA for improvement of Civil infrastructure and Central Computing facility.</li> <li>SAR to be uploaded by 3<sup>rd</sup> February 2015.</li> </ul>

	Describe difficulties faced, if any.	<ul> <li>Shortage of Professor/Associate Professor/Assistant professor.</li> <li>Lack of Hostels.</li> </ul>
5.3	List the PG programs accredited on date by name	No PG programme eligible for accreditation.
5.4	<ul> <li>State program-wise action taken to get accredited the eligible PG program that are yet to be accredited.</li> <li>Describe difficulties faced, if any.</li> </ul>	NA
6.1	Give the number of papers published in national refereed journals from the date of joining the Project.	0
6.2	Give the number of papers published in Foreign refereed journals from the date of joining the Project.	22
6.3	<ul> <li>Number of patents filed since joining the Project</li> <li>List the titles of patents filed since joining the Project along with names of contributors.</li> </ul>	NIL
6.4	<ul> <li>Number of patents obtained since joining the Project</li> <li>List the titles of the patents obtained since joining the Project along with the names of contributors</li> </ul>	NIL
7.1	Actions being taken for identifying weak students	<ul> <li>Diagnostic test has been conducted for identifying weak students</li> <li>For supplementary examination, the students those who were failed in their university examination have been identified</li> <li>For Regular examination, the students those who scored less than 25 marks in their first series test have been identified</li> </ul>
7.2	Number of students that have benefited from remedial teaching since joining the Project/ since the last performance audit	963 (Theory) + 96 (Lab) + 112 (Bridge Course)

performance audit	
<ul> <li>High Intensity Android was a following this through PMS.</li> <li>Employment association wi funds. The res Cherthala, and</li> <li>Training prog and individua</li> </ul>	ool has been established.  y training programme on Java and conducted, 4 students were placed. Invitations have been sent out S for the new HIT programme. Eligibility Test was conducted in th Aspiring Minds, using TEQIP sults have been shared with CE d with the participating students. Trammes (soft skill, tech skills, group I counselling, women's cell have been conducted. Total 1976



Dr. P Suresh Kumar Principal

# ANNEX5: INSTITUTIONAL RESPONSE FORM (2) INSTITUTIONAL RESPONSE FORM (2)

(Engineering disciplines)

#### TABLE-1(A): CONSOLIDATED STATEMENT

No.		F	Pre-TEQIP (201	1-12)	Post-TEQIP (2014-15)			
1	No. of departments		2		3			
2	Levels of programmes	B.Tech	M.Tech	Phd	B.Tech	M.Tech	Phd	
	(Number of programmes)	2	1	-	3	2	-	
3	Collaboration with industry (number of MoUs signed)	Nil				3		

#### TABLE-1(B): DETAILS OF STUDENT ENROLMENT

	Name of the		Pre	-TEQIP (201	1-12)	Post	t-TEQIP (201	14-15)	
No.			B.Tech	M.Tech	Phd	B.Tech	M.Tech	Phd	Increase in percentage
1	ECE	No. of fresh students admitted in the institute	92	18	NA	91	24	NA	
2	CSE	No. of fresh students admitted in the institute	73	NA	NA	72	24	NA	
3	EEE	No. of fresh students admitted in the institute	NA	NA	NA	57	NA	NA	

## TABLE1 (C): FACULTY DETAILS

NT.	Name of the		Pre-T	EQIP (20	11-12)	Post-T	EQIP (20	14-15)	Increase in	T-4-1
No.	department		B.Tech	M.Tech	Phd	B.Tech	M.Tech	Phd	percentage B.Tech. M.Tech.	Total
		No. of faculty having highest qualification								
1	ECE	Regular	2	3	1	4	3	4		
		Contractual	9	0	0	0	13	0		
		Total	11	3	1	4	16	4		
		Regular	6	1	0	2	5	0		
2	CSE	Contractual	6	0	0	0	12	0		
		Total	12	1	0	2	17	0		
		Regular	0	1	0	0	2	0		
3	EEE	Contractual	2	0	0	0	3	0		
		Total	2	1	0	0	5	0		
		Regular	0	3	0	0	3	0		
4	GENERAL	Contractual	1	0	0	0	2	0		
		Total	1	3	0	0	5	0		
		Regular	0	3	0	0	3	0		
5	APPLIED SCIENCE	Contractual	0	4	0	0	4	0		
		Total	0	7	0	0	7	0		

## TABLE1 (D): COLLABORATION WITH INDUSTRY

No.	Name of the department / institute	Name of the industry wi	th whom MoU signed
110.	Name of the department / institute	Pre-TEQIP (2011-12)	Post-TEQIP (2014-15)
1	Electronics and communication department		Walrus marine Engg. Co. Pvt ltd
2	Computer science	Nil	<ol> <li>Cyber Prism Pvt. Ltd.</li> <li>Kites Software Pvt. Ltd.</li> </ol>

#### TABLE2: SUMMARYSHEET FOR REVIEW

Sub-component:1.1

Name of NPIU Official: **Dr Suresh Kumar Dhameja** Name of Institute: **College of Engineering Cherthala** 

Category of Institute: Government

	Strategy/Activities	Indicators	Institutiona 1 Baseline (Pre-TEQIP) in 2011-12	_	Target for 2 Dec 2014)	Proposed B Estima	C	Status due to TEQIP as on 2014	31 <sup>st</sup> Oct	Outcome against	
			Physical	Institutional	TEQIP	Institutiona	TEQIP			Goals	Remarks
			(No.*/%age)	(No.*/%age)	(No.*/%age)	(Rs. Lakh)	(Rs. Lakh)	Physical (No.*/%age)	Financial (Rs. Lakh)	(TEQIP)	
A	Goal: Improve Quality	of Education in Selected Inst	itutions								
A.1	Student										
A.1.1	Improvement in	Percentage of female									
	Students	students against total									
	Knowledge and	engineering students in all									
	Skills	years									
	•Diagnostic test	•Undergraduates	53.77 %	60 %	60 %			55.02 %			
		• Postgraduates	44.44 %	60 %	60 %			80.21 %			
A.1.2		Students transition rate									Examination
	teaching	(percentage) from first									Result of 2013- 14 yet to be
		year to second year of UG									published by
	•E-enabled	programmes(clearing all									University.
	learning	subjects/coursesof1st year									However all
		in first attempt)									first year
	D 1		44 %	60 %	60 %			32.29 %			students will be
	•Research projects at UG levels							(2012-13)			promoted to 2 <sup>nd</sup>
	at UG levels										year as CUSAT rules. They
											have to clear all
	•Assistantships										the subjects by 4 <sup>th</sup> semester.

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A.1.3	Average scores(%/CGPA) at degree completion									
	•Undergraduates	65					71.3%			
	•Postgraduates	-					8.82			
A.1.4	No. of students enrolled in MTech programmes	18	48	48			48			
A.1.5	No. of students registered in PhD programmes in engineering	Institution is not a research centre	NA	NA	NA	NA	NA	NA	NA	
A.1.6	No. of Masters students enrolled with TEQIP teaching assistantship	Nil					43	26.07		
A.1.7	No. of PhD students enrolled with TEQIP research assistantship	Institution is not a research centre	NA	NA	NA	NA	NA	NA	NA	
A.1.8	No. of Research projects taken by UG students	Nil					Nil			
A.1.9	Any other									

	Strategy/Activities	Indicators	Institutional Baseline (Pre-TEQIP) in 2011-12	Proposed Tar years(31stDe	-	Proposed B Estima	_	Status due to TEQIP a 31stOct	as on	Outcome against Goals (TEQIP)	Remarks
				Institutional	TEQIP	Institutional	TEQIP	Physical			
			Physical (No.*/ %age)	(No.*/ %age)	(No.*/ %age)	(Rs. Lakh)	(Rs. Lakh)	(No.*/ %age)	Financial (Rs. Lakh)		
A.2	Faculty										
A.2.1	Capacity Development of Faculty •Recruitment of faculty •Subject Domain training •Qualification up gradation •Pedagogical Training •E-enabled training •Management	%age of faculty positions filled-in(as per AICTEI MHRD required Teacher- Student ratio): •Regular •Regular + Contract  %age of Faculty with B.Tech enrolled for M.Tech against total B.Tech faculty	42.59 % 83.33 % 12.5 %	40 % 97 % 50 %	40 % 97 % 50 %			35.14% 81.08% 33.33 %			
A.2.3	development training •Continuing Education Programme	%age of Faculty with M.Tech enrolled for PhD in engineering against total MTech faculty	12.5 %	20 %	20 %			15.38 %			

A.2.4	%age of regular faculty with Masters degree in engineering against total engineering faculty	21 %	41 %	41 %			56.52 %		
A.2.5	%age of regular faculty with PhD degree in engineering against total engineering faculty	2.7 %	13 %	13 %			17.39 %		
A.2.6	Number of faculty members attended training in subject domain	Nil	48	48	20	20	47	30.1	
A.2.7	Number of faculty members attended management development training	Nil	10	10	10	10	10	1.78	
A.2.8	Number of faculty members attended pedagogical training	Nil	50	50	10	10	2		2 faculties attended FDP on "Outcome Based Learning and Teaching". To be conducted by SPFU/NPIU
A.2.9	Any other								

	Strategy/Activities	Lating	Institutional Baseline (Pre- TEQIP) in 2011-12	Proposed Tayears (31st)		Proposed B Estima	•	Status due to TEQIP as on 2014	31 <sup>st</sup> Oct	Outcome against	Remarks
	Strategy// territies	Indicators	Physical (No.*/ %age)	Institutional (No.*/ %age)	TEQIP (No.*/%age)	Institutiona (Rs. Lakh)	TEQIP (Rs. Lakh)	Physical (No.*/ %age)	Financial (Rs. Lakh)	Goals (TEQIP)	
A.3	Institutional Reform	ns									
A.3.1	Academic reforms     Non-academic reforms     Enhance interaction with industry	%age of NBA accredited UG &PG programmes including Applied- For cases, against total eligible programmes	0	100 %	100 %	10	10	2	8.99		Institution has applied for accreditation for 2 eligible programs in 2013. Fee remitted to NBA in November 2013. SAR to be uploaded by February 2015.

A.3.2	Autonomous institution status concurred by UGC (Yes/No/Applied For)	Non Autonomous	NA	NA			Applied to the University for forwarding ap for autonomouthe UGC University forwarded the application to is under proce	plication us status to versity has	
A.3.3	No. of academic programmes i.e. M.Tech / PhD etc. with industry	NA	NA	NA	NA	NA			
A.3.4	No. of short term programmes with industry	NIL	4	4	1	0.25			
A.3.5	Academic networking with other institutions(No.)	NIL							
A.3.6	ICT(Information communication Technology) enabled learning (No. of programmes/courses)	NIL			20	20		27.31	
A.3.7	Curricular revised/ restructured(No.)	Curriculum is fra revision was in 2	•		•	-		. Last	

A.3.8	Total IRG	304			10.67	2% tuition fee of the year 2014-15 - 8.11 lakhs, FDP & Conference registration charges and bank interest up to 09.12.2014
A.3.9	%age revenue from externally funded R&D projects and consultancies in total revenue					
A.3.10	IRG as %age of annual recurring expenditure	312			405.40 (2013-14)	2014-15 To be finalized at the end of financial year
A.3.11	Any other					

	Strategy/Activities	Indicators	Institutional Baseline (Pre-TEQIP) in 2011-12	Proposed Tayears (31st I		Proposed B Estima	_	Status due to input of TEQIP as on 31st Oct 2014		Outcome against Goals (TEQIP)	Remarks
			Physical (No.*/%age)	Institutional	TEQIP	Institutional	TEQIP	Physical (No.*/%age)	Financial	(== (==)	
			(140. 770age)	(No.*/%age)	(No.*/%age)	(Rs. Lakh)	(Rs. Lakh)		(KS. Lakii)		
В	Enhance Access to K	Knowledge Resources									
B.1	Improvement in Teaching, Training and Learning facilities	Laboratories:  •New laboratory(Nos.) for new PG programmes	NA					NA			
	•New PG programmes	•New laboratory (Nos.) for existing PG						1	16.15		
	Updation     of learning     resources      Equipment	programs •Existing laboratory (Nos.)modernized	1	10	10	150	150	8	206.91		
B.2	details	Library									
	•Modernization	•Books(print)(Nos.)	6426	980(17%)	4683(83%)	3.07577	18.21162	12088	18.21		
	of Labs and class rooms	•e-books(Nos.) •Journals(print)(Nos.)	(G) 20	33	33	0.92816	1299014	33	0.75		
		•e-journals(Nos.)	750		750			488	11.22		
		•Course specific softwares (Nos.)	,00		, 5 0			8	55.10		
B.3		Membership of online									
		1.No.ofjournals	1	6	6	11.00166	10.54563	4			
B.4		2.No.ofconsortium  No. of digitally/virtually accessible courses/									
B.5		Any other									

	Strategy/Activities	Indicators	Institutiona 1 Baseline (Pre-TEQIP) in 2011-12	Proposed Ta		Proposed E Estima	_	Status due to TEQIP as on 2014	31 <sup>st</sup> Oct	Outcome against	Remarks
			Physical	Institutional	TEQIP	Institutional	TEQIP	Physical	Financial	Goals (TEQIP)	
			(No.*I% age)	(No.*I% age)	(No.*I% age)	(Rs. Lakh)	(Rs. Lakh)	(No.*I% age)	(Rs. Lakh)		
C	Enhancement of Rese	arch and Development Activitie	S								
C.1	Promoting R&D culture in the Institution •Modern R&D equipment •Conference s/ Workshops organized	No. of research publications in engineering in refereed journals: •National journals •International journals	0			20	20	0			
	•Conference s / Workshops attended										
C.2		No. of Books published	Nil					Nil			
C.3		No. of Patents obtained / filed	Nil					Nil			
C.4		Any other									

	Strategy/Activities	Indicators	Institutional Baseline (Pre-TEQIP) in 2011-12	Proposed Tayears (31st 1		Proposed Estin	_	Status due of TEQI 31stOc	P as on	Outcome against Goals	Remarks
			Physical	Institutional	TEQIP	Institutiona	TEQIP	Physical	Financial		
			(No.*I	(No.*I	(No.*I	(Rs. Lakh)	(Rs. Lakh)	(No.*I%	(Rs. Lakh)		
			%age)	%age)	%age)			age)			
D	Improve Employabi	lity of Graduates									
D.1	Improving competencies of graduates	Campus placement percentage:  •Undergraduates	25.17 %	60	60	10	10	15.42 %			Placement activities of
	•Industrial collaboration •Finishing School	• Postgraduates	NA	20	20			8.33%			2014-15 are going on
D.2	•Industrial training	Average annual salary (Rs. Lakh)of:  •Undergraduates	2.5 /year					3.0/year			
		• Postgraduates	NA					3.0/year			
D.3		Share of UG students attended industrial internship(percentage)	0					23.17			
D.4		Any other									

#### TABLE-3: INSTITUTIONAL PROJECT BUDGET

#### TEQIP Funds Received (Installment):1st/2nd/3rd/4th/5th

1st Installment: Amount Rs. 100 Lakhs Date: 18/04/2013

2nd Installment: Amount Rs.150 Lakhs Date: 12/10/2013

3rd Installment: Amount Rs. 50 Lakhs Date: 07/01/2014

4th Installment: Amount Rs .250 Lakhs Date: 06/08/2014

5th Installment: Amount Rs. 35 Lakhs Date: 13/11/2014 **Total Funds Received: Rs.585 Lakhs** 

SI	Activities	Project life		Expenditu	re in Financial	Year
No.		allocation	2011-12	2012-13	2013-14	2014-15
	Improvements for teaching, training and learning facilities through:					
	a. Starting new PG programmes	44.14				
	b. Modernization and strengthening of laboratories <sup>+</sup>	221.3			1,03,30,625.00	1,97,64,930.00
	c. Establishment of new laboratories for existing UG and PG programmes and for new PG programmes	66.75				
1	d. Modernization of classrooms <sup>+</sup>	9.3				
	e. Updating of Learning Resources	49.5				
	f. Procurement of furniture	26.7			24,08,061.00	17,04,905.00
	g. Establishment/Upgrading of Central and Departmental Computer Centers+	50.0				
	h. Modernization/improvements of supporting departments+	1.5				

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	Modernization and strengthening of libraries and increasing access to knowledge resources	30.8	69,61,615.00	19,33,278.00
	j. Minor Civil Works	50	13,07,883.00	34,77,832.00
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	60	13,63,938.00	12,43,176.00
3	Enhancement of R&D and institutional consultancy activities	30		
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organizing /participation of faculty in workshops, seminars and conferences)for improved competence	140	16,76,938.00	16,89,077.00
5	Enhanced Interaction with Industry	20	1,14,537.00	
6	Institutional Management Capacity enhancement	30	1,65,898.00	11,728.00
7	Implementation of institutional academic reforms	10	1,12,360.00	7,86,520.00
8	Academic support for weak students	60	5,28,615.00	1,83,835.00
9	Incremental Operating Cost	100	15,17,783.00	6,31,182.00
	Total	1000	2,64,88,253.00	3,14,26,463.00

<sup>\*</sup>Refer IDP +Not applicable for Institutions participating under Sub-component1.2.

Note: Procurement of equipment, minor civil works, furniture etc. is not allowed for Private unaided Institutions. Not Applicable (NA) can be mention if appropriate.

# Interaction with TEQIP Cell.

# COLLEGE OF ENGINEERING CHERTHALA ATTENDENCE STATEMENT OF FACULTY MEMBERS

EVENT: meeting with the TEQIP Project Auditor and Data Auditor

Date and Time: 13.12.2014 Venue: Seminar Hall

CI N		ne :13.12.2014 V		
SI .No.	Name of Faculty	Department	Designation	Signature
1	loshed AGIK	Electronics	MIE co-oxclinal	no As
2	Jayadosc	- 4	FC4RHD (0)	form
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# Attandance Statement UG Student Interation with the Performance Auditor

SI No	Name	Branch	Semester	Signature
1	Aimal T.H	EC.	34	4
2	ARAVIND SANKAR	EE	54	Ravingantes
3	Adibya P Kamath	CS	54	Adaya
4	A Renjith Krushnan	33	SH	Penjelo
-5	Vishm Bose	cs	54	wizai.
6	Aji Vijayan	EE	54	Au Thin
7	Jismal Jamel	EC	Ca	de
8	Sebastian TJ	CS	58	Soften.
9	Ebin Xavley	CS	58	20m
10	Unnikkuttan M	(5	58	Tims
11	Anshad K-J	EC	58	Atod
12	DEVADAS DOMINI	EL	58	Pel
13	YADHU KRISHNAN	EC	58	fede
14	Muhammed Salman	EE	5,5,	1 - Charles
15 -	Vishnu Das 4	EE	5152	John der
16	AKHIL VA	RC	Sa	Alban
17	Anandy	F	Se	2 Sund
18	Alan. C. Bose	cs.	Se.	ARUD
19	Swan and D	CS	56	Erroward .
20	Szeejith Karthikeyan	CS	18	Special
21	Miril. M	F(.	38	A5-
22	Gishny Thompson	EC	S <sub>8</sub>	1 Stay au
- 23	Sivaryas ad. &	CS	5182	Storman
24	Sinho. V. Joseph	C.S	5152	
25	HRIGHI RAI	EC	8, 32	Touring
26		LS	5,52	Olulyn
27	Ajay. P. Victur Greerag. H	EC	54	a.
28	Mohammed Aboo Saleh	EC	8, 82	(Baling
29	ANANON KRISHNAN	EC	5,52	Alad
30	Sarath Chandson P	EC	5152	alk .
31		CS B	56	Albusto
32	Abhyith Agit Kuman	CSB	56	Sudrish
33	Bibin Rg. B.S	CSB	56	Pilineal
34		SEC B	56	No.
35	Vignesh Haci	FEE	56	Vigueshtio

36	KIRAN-K-S	EEE	56	Skop:
37	SUNIL. K. V	CS	54	d
38	Aithoral Done D.K	CS	84	And S
39	R. Sin Roy	CS	54	000
40	VISHAU THANKAPPAN	FC	56	1
41	Manush Mohas	EC	56	Ma
42	Roshing P Roy	· EC	SC	Josh
43	Keerthi Krishna R	£ C	56	Aller (
44	Addisha Pradeep	FEE	56	dedicto-
45	ANISHA. A.S	eec	SG	(ph)
46	Angeline Nina	EEE	56	Anglino
47	Anargha Langadharan	CS	54	JArrage 10
48	Indulation	CS	84	Juda -
49	Alisha Rose Jose	cs	84	and ·
50	Bareira - A	EC	58	OSP !
51	Baniga. K. A	EC	88	All On
52	Kustha Vanuder	cs	SA	Keathi
53	Keerthana Shanty	CS	Sq	greathen.
54	Sheethal k.s	CS	54	M.
55	Reshma - P-R	EC	58	D. Van
56	Anjali Rekumaran	FL	88	Anjali
57	Rakhi. R. Pai	EC	56	FE KL
58	Boraclekshmi S. Nais	EC	S.6	80
59	Mellin.	EC	56	Xestin
60	Nihitha K. Babu	EEE	51	Study.
61	ARORON - O.D	EEC	51	Melsop
62	Rubeena Azecz. A	ECE	58	Kult
63	Aasabi Taled	ECE	88	14
64	Tosomary	CS	Ss	a sear
65	Tosemary	U	11	Ch t.
66	Midhuna	Li	N	hatelo
67	Asya K Jayachendo	an CS	58	alp
68	Bryateize Neethin . P.L	cs	\$8	The state of the s
69	2012t mol Kosky	CS	S8 S2_	Real
70	Some thomas	E(		Jones
71	Supparnika K.S	EC	52	San
72	Lula Snanch	05	82	***
73	Makanandha	Cc	82	Materia

4 V . D	CS	Sa	Verse
4 Vene R	EC	52	Amy of
5 Ameya B 6 Alinea Southon	CS	52	- Market
17 Anna KD	12 B	54	Acyclop
78 Kuishna Henugo pal	PE	54	Inghia
17 Anya KD 18 Kushing Venugo pag 19 Respains Namshad	EC	84	Ruby
80 Equido Majerd.	EC	\$4	Jay May
80 Fayida Majeed. 81 Betry Antony	EC	\$4	314
82 Pouniting	EC	84	1
83 Nigha tabeer	EC	84	Louisine
84 Zarah fathing	EC	54	10/)
85 Aiswacya - Pai	EC	54	The servery of the se
86 Neha Joy	EC	S4	J.C.
87 Telin Tom	CS	56	ar
88 Sonmy	CS	56	9
89 Akhika S	CS	5.6	Aut
90 Ganga Szeekuma	Cs	56	Ran.
91 Surabhi Suresh	CS	56	lu 1
92 Neenu Gennas	EER	.52	Street.
93 Reshma Suresh	es	82	(Rediner.
94 Keinska dodaron	100		
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Attendants Statement

# PG Student Interaction with the Performance Auditor

SI.No.	Name	Branch	Semester	Signature
1	NARENDRAMUDRA-NG	1 5 P	51	Masendsamedin
2	JEFFY JOSE	SP	51	1
3	ASWATHI MURALEECHARA	V SP	SI	amole.
4	Athisa P	SP	SI	Jan 1
5	Nami tha N	· SP	SI	North A
6	Creethy Ann Babu	SP	81	geeding
7	Neethu. K.C	SP	SI	Dec gua
8	Shifana M. Shesiel	SP	Si	Bu
9	Anju Jose Tom	SP	51	The same
10	Bency Mohan	5P	51	Bencomahan
11	Aswathy. T.A	SP	51	Anny
12	Burcumy Backer	SP	SI	Topp
13	Reein Varahese	SP	SI	Posper
14	00 00 11	SP	81	TO I
15	Karrya Karasekhasan	5 P	51	Mincezo.
16	Alswania Sunesh	SP	Sı	<b>A</b> 8.
17	RITHU. C.S	SP	SI	Filler
18		SP	SI	6 Car
19	Aswathy N.H	SP	51	Speed .
20	Specja P Febin. P. Alem	SP	84	o Hille
21		512	Sa	and .
22	Aith AG	SP	SA	Tig and
23	Toseph Thomas	SP	SI	V.E
24	Vishaulal N-B NIAhia Kuriakose	50	51	1 Shin
25		SP	SI	Mahest
	Mahesh M	SP	51	enusta
26	Shalimin AV	SP	SA	dia
27	JINO LAWRANCE	3P	34	Janer
28	ATAN MANOHAR	CIS	53	dayle
29	Jayaksishnan. R		SA	BESS
30	Bright Jacob	CIS	Su	Marie 1
31	Clearly	CIS	54	
32	Rajeswary. R	CIS	SA	Mar
33	Nemisha. M	CIS	Q	OS Pre
34	Assorby Pasophusam		S <sub>A</sub>	elet
35	Chintoly Raymohn		34	Story and
36	Shaxmi's	cus	Si	Perm
37		CIS	SI	Key
38	1	CIS	Si	pars.
39	1/5 0.51	CIS	81	(Pall
40		CIS	81	Marie .
41		CIS	S <sub>L</sub>	05
42		CIS		Name John
43	11044	CIS.	51	XXXX
44	141-111	CIS	51 Si	Dodus
45		CIS	31	1
46	Jincu Mo George	CIS	21-	

47	Anjorly Mohan.	CIS	SI	Any
48	So y y separtion	SP 3	53	Rills
49	JAYAS RGE . J. DAS	//	1	Lyne
50	8208 L to grai. 2	1/	11	Seels
51	PAYONA P. BABU	11	/1	Soucore
52	Robins D	CIS	1/	Juli
53	Dapa S. None	"	Sz	4
54	Rome Mik	11	- 03	
55	60 0 01.0	. 11	//	
56	Roshin KK.	"/	- II - S,	0.87
57	sheemal Ch-	1/	5)	Me.
58	Ilena Hayan	n	89	- Alexander
	Sharns Coolongoon	*	02	O'm
59	100010	10	3,	3
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61	Chincin Thomas		Л	Children of the control of the contr
62	Ammy Naw MD	h	11	Man Man
63	Regi Rinjan	h	11	Replan
64	Jiffy Joseph	CSIS	S1 S1	July .
65	Lak Ohni G	7	81	Ladry
66	Appenal - B	11	3,	A
67	Aila. 8 · Baba	11	+	1
68	Rain Antony	-11	+	
69	Aish orge Rai	tr	4	A Sanda
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# College of Engineering Cherthala

# Attandance Statement Faculty Interation with the Performance Auditor

Sl No	Name	Department	Designation	Signature
1	Elizwa Laiju	ERE	Asst - Professor	Totayor
2	Veena Mathew	EEE	Most Paulessus	Ours.
3	SONY.P.	CSE	A sof Asolehus	Some
4	Greeshura N. Gotsal	CSE	Agt Rofins	
5	Anjali-R	PCE	Ast Profesion	digate
6	Anupama A	ECE	1) 19 530	Ausery
7	LAKSHMY SASIDHARAND NAIR	ECE	Asst Prof	Salahany & Novie
8	Daria M.D	ECF	Lest Probe	A STONE
9	Fathima. N	CSE	Asst Prof	
10	Aswathy V Shaji	CSE	Arst Pool	48
11	Radha Balakorshnan	Applied Cair		TABL
12	Sandhya-P. Crops	Mech Enga	Asst. Prod.	Span
13	Joyce Jose	CSE 3)	Asst · Prafesso	Odesso
14	Asha Thomas	CSE	Asst. Properson	Ala
15	Josna Jose	CSC	Asst-Professor	199
16	Admea. S. Kumas	CSIE	Aget - Professor	& sa
17	Anaswara. V Nath	ECE	Asst. Prodesson	
18	Rijimol Mathers	ECE	Asst: professor	To and
19	Sheeba P.S	Applied Science	Le coloni inhomely	Stube.
20	Suman Elizabeth Daniel	CSE	Asst Professor	2
21	Rohini TM	CSE	Acat. Professor	P
22	Sreedly T. Scal	ECE	Asst Professor	Sich
23	Joymon Emmanuel	EEE	Asst · Profeser	790
24	Dr. Ashak kumar.T	ECE	Assoc. Prest.	THE .
25	Muhammed Eliga H	CSE	Assl. pnol.	Hlyail
26	ATAY NATH S.A	ECE	Assk prof	Alaki
27	Pramod Mathew Jacob	CSE	Asst. Prof	19 ramoan
28	Porakach Sam Thomas	ME	Asst- Prof	Storcash
29	Taffin Antonia	ECE	Assl. Prof	
30	Nidhin. K.	EC	Asst. Prof	Allena
31	LOMIN JOYV	CSF	ASST. Prot	Ah
32	Vishmy Pradrep K	ECF	ABST-Prof	Vichnu
33	Steel Komare K.	ECE	Asst. Poof.	SETTO-
34	behad Ali 7.5	RCE	Aug. Prof.	-14.
35	pmalam T.N	Applied sun	Amount my	of al
36	Testi Franci	ill acc	Asit-Prof +	F.
37	Mary Mathou	CS75	AP	Frence
38	Ashitha. 21	5 CE	.11	Still
39 40	Abdulkaseenv	.,	.,	1
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# College of Engineering Cherthala

# Attandance Statement Staff Interation with the Performance Auditor

Sl No	Name	Department	Designation	Signature
1	xelshmi V. R	Electronics	Demonstrator	attime"
2	Bhavana Mohan	Comp. Science	System Anglist	R.Be_NA
3	Ancy Poul	Library	Librarian	As-
4	Secriamol P.M.	3,	Libranian	BALL.
5	Replakernan R	· office	JOA	Dentor
6	Asha Madhavan-s	Offdce	Head cline.	Ctro
7	Anitha Soman	Flectorical	Technician Gri	Andre .
8	Radhalarishnan NS	Mechanical	Poreman (He	h) 10
9	Jithin-T	Electronics.	Technician Grit	and friend
10	Amaldov.G	Electrical	workshop Assisted	Aralla
11	Lileesh. PG	Compuler Science	Computer programmer	Lon
12	PRASANTH C.R.	1)	W/s Assistant	CRE.
13	RAJESH. C.D	office	500	Rajes
14	RAJESH.N.D	Adeministrati		lly
15	Abon Taleel	Electoonics	W/S A8818/an	+ Caram
16	Tanalaisman. C.	Electronics	WRASTIAN	And -
17	George C. Karamel	Flestronics	Technicalle	I He
18	SUNDAKESAN. YL	nechamical		medany
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# COLLEGE OF ENGINEERING CHERTHALA ATTENDENCE STATEMENT

EVENT: meeting with the TEQIP Project Auditor and Data Auditor

SI.No.	Name	Department	Designation	Signature
1	Dr. Johnnol Jacob	Electrical & Elet		april -
2	Sara Kutty K. 7	Applied Scure	HOD	42
3	Devanand CN.	General debt	H.OD	P
4	Pradein M.	Chilo mo	1285,12ml	*
5	Manufall DL	Campula Sum	HOD D	100
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# College of Engineering Cherthala

# Attendance Statement Interaction of BOG with the Performance Auditor

Date: 13.12.2014

SI No	Name	Branch	Signature
1	Dr C P Girijavallabhan	Chairman	CRM
2	Prof Manilal D L	Institutional member	9/2
3	Prof. Pradeep M	Institutional member	R

# II.PERFORMANCEAUDIT-CE CHERTHALA

College of Engineering Cherthala Pallippuram



# **Preamble**

- This power point presentation contains slides showing the improvement in
  - (a) student performance
  - (b) faculty contributions
  - (c) facilities and technical support
  - (d) academic support units and teaching learning process
  - (e) Governance, Institutional Support and Financial Resources of Participating Institutions of TEQIP-II

during the project period.

• The above parameters are selected from Evaluation Guidelines of National Board of Accreditation for UG programs-Tier-II.

#### **TEQIP CELL**

• Dr P Suresh Kumar: Principal

- Dr Vinu Thomas: TEQIP Coordiator

• Prof. Manilal D L : Procurement Coordinator

• Prof. Jayadas C K: Finance Coordinator, R& D Coordinator

• Dr Jobymol Jacob : Academic Coordinator

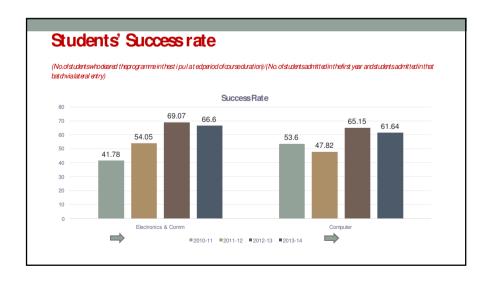
· Sri Irshad Ali T K : M& E Coordinator

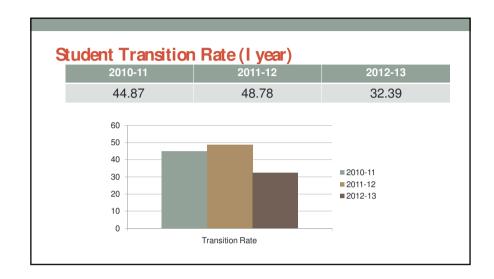
· Prof. Sarakutty K J: EAP Coordinator

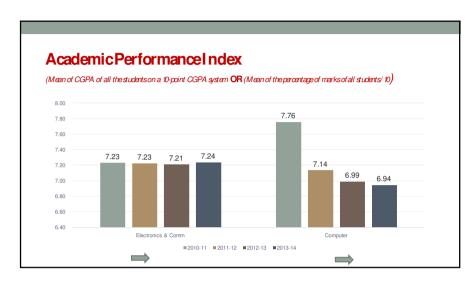
• Prof. Priyakumar T N : Civil works Coordinator

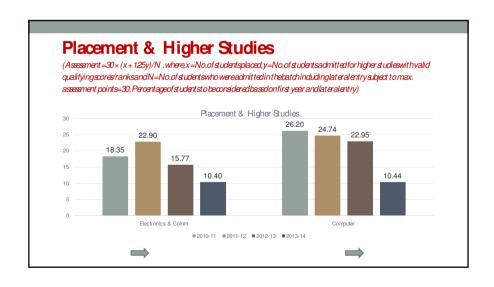
• Sri Sreekumar K: IIIC Coordinator

• Smt Greeshma N Gopal : Finishing School Coordinator, Placement Cell In Charge









## **Faculty Position**

The following Faculty has joined College of Engineering Cherthala since the last Performance Audit:

- •Sri Jayadas C K, Associate Professor, HOD Electronics & Communication
- •Smt Remya S, Asst. Professor in Electronics Engineering
- •Smt Anupama A, Asst. Professor in Electronics Engineering

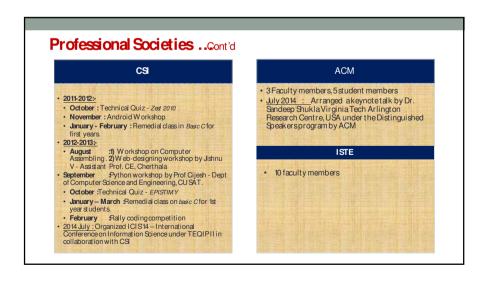
The following Faculty has re-joined College of Engineering Cherthala after leave:

•Dr Ashok Kumar T, Associate Professor in Electronics Engineering

#### **Faculty Position** Pre-TEQIP (2011-12) Post-TEQIP (2014-15) Name of the department Highest Qualification :→ B.Tech M.Tech B.Tech M.Tech Phd Regula ECE Contractual 13 0 Total Regula 0 2 CSE Contractua 12 0 Total Regular EEE Contractual 0 Total 0 0

	Name of the		Pre-TEQIP (2011-12)				Post-T EQI P (2014-15)		
No.	department	Highest Qualification :→	B.Tech	M.Tech/MSc.M. Phil	Phd	B.Tech	M.Tech	Pho	
	Gen. Engg	Regular	0	3	0	0	3	0	
1		Contractual	1	0	0	0	2	0	
		Total	1	3	0	0	5	0	
		Regular	0	3	0	0	3	0	
2	Applied Science	Contractual	0	4	0	0	4	0	
		Total	0	7	0	7	0	0	

# Professional Societies CS 4 Faculty members, 75 student members 2010-11 August: Technical Quiz September: Hacksec - Workshop on athical hacking by TechDefence October: Initiated in organizing events like CodeDebugging, Gaming, Virus Programming etc. for ZEALOUS 2K 10, intercollege tech-fest conducted by the college. November: Paper presentation training. December-March: Remedial class on C programming for first year students.



#### Publications by Students - EC No PAPER JOURNAL ISSUE AUTHORS International Journal of Vol. 3 Issue 1, Sreedhu T Sasi "Directional steering of audio signal using parametric array in air" Engineering Research January - 2014 Anaswara V Nath and technology (IJERT) Archana V R "Digital Face recognition technique Surya Raj, Navya Jose International Volume 9, I ssue 2, for matching with sketches" Organization of (Mar - Apr. 2014), Scientific Research "A new transform for irregular ROI International Volume 9, Issue Anaswara V. Nath, 2, (Mar - Apr. Archana V. R., coding of two dimensional image" Organization of 2014) Sreedhu T. Sasi, Scientific Research Prasanth C. R "Change detection algorithm in International Journal of October 2013 multitemporal images" Engineering Research and technology (IJERT)

No	PAPER	JOURNAL	ISSUE	AUTHORS
5	"Contrast Enhancement for Remote Sensing Images using Discrete Wavelet Transform, Brightness Level Analysis and Lapped Transform"	International Journal of Engineering Research & Technology (IJERT)	Vol. 3 Issue 3, March - 2014	Anaswara.V. Nath, Prasanth C R,Sreedhu. T. Sasi
6	"Sudy of H.264/Avc Algorithm and It's Implementation In Matlab "	IOSR Journal of VLS and Sgnal Processing (IOSR-JVSP)	Volume X, Issue X, Ver. I (Jan. 2014)	Prasanth C. R, Lekshmi P.R, Shanti K.P
7	Study of Various Histogram Equalization Techniques	IOSR Journal of Electronics and Communication Engineering (IOSR- JECE)	Volume 8, Issue 1 (Sep Oct. 2013),	Prasanth C. R
8	"Matrix Based Ramanujan Sums Transforms for image coding"	ICIS 14	July 2014	Anaswara V. Nath, Archana V. R

No	Student Name	Title	Batch	ISBN	Month &	Conference
1	Baby C J	Anaphoraresolution in Malayalam using machine learning approach	CSIS 2012-14	ISBN 978-93- 80095-46-2	Feb-14	NCRTKM - 2014
2	Rishal Rasheed, Abhilash K Pai	A survey on secure key sharing mechanisms that can be used in wireless sensor networks	CSIS 2012-14	ISBN: 9789351072478	Jun-14	ACCIS-14
3	Rishal Rasheed	Cloud Based Cheque Clearance System	CSIS 2012-14	ISBN 978-93- 83459-57-5	Jul-14	ICIS14
4	Asjad Nabeel	Redefine and accelerate video streaming for cloud gaming	CSIS 2012-14	ISBN 978-93- 83459-57-5	Jul-14	ICIS14
5	Archana Sasi, Vidhu Kiran G	Survey on Association rule mining algorithms in medical domain	CSIS 2012-14	ISBN 978-93- 83459-57-5	Jul-14	ICIS14
6	Shailesh S	Advanced session password authentication scheme using soundsfor blind computer users	CSI S2013-15	ISBN 978-93- 83459-57-5	Jul-14	ICIS14
7	K SSreeja	Enabling and implementation of fairness in a peer to peer system using a deficit based algorithm in P2P simulator	CSIS 2012-14	ISBN 978-93- 83459-57-5	Jul-14	ICIS14

No	Student Name	Title	Batch	ISBN	Month & Yr	Conference
8	DivyaMohandas	User Intension based anomaly detection approach to identify anomalous DN Straffic	CSIS 2012-14	ISBN 978-93- 83459-57-5	Jul-14	ICIS14
9	Rishal Rasheed, Abhilash K Pai	A security architecture in wireless sensor networks with mobile sinks	CSIS 2012-14	ISBN 978-93- 83459-57-5	Jul-14	ICIS14
10	Jane George	Parallelizing Markov clustering using CUDA and CSR Sparse Format	CSIS 2012-14	ISBN 978-93- 83459-57-5	Jul-14	ICIS14
11	VinithaMol K B	Map Reduce based pattern listing algorithm applied in Motif detection for social networks	CSIS 2012-14	ISBN 978-93- 83459-57-5	Jul-14	ICIS14
12	MeeraM	Multilingual Machine Translation With Semantic And Disambiguation	CSIS 2012-14	10.11.09/ICACC.20 14.60	Aug-14	ICACC 2014
13	VinithaMol K B	Survey On Open Source Cluster Management Systems	CSIS 2012-14	10.11.09/ICACC.20 14.60	Aug-14	ICACC 2014
14	DivyaMohandas	A Study on Detection of Botnets With DNSas Command and Control	CSIS2012-14	10.11.09/ICACC.20 14.60	Aug-14	ICACC 2014

## Entrepreneurship initiatives

No	Name	Batch	Name of firm	details
1	Appu S,Jophin John, Anto K Antony, Arun Mathew, Abhilash Nazer, Jenson PP	2010 admission	Forerunners	www.forerunners.in
2	Ansar Abdul Kareem	2009 admission	Willwo technologies	www.willwo.in
3	Kannan P V	2007 admission	Graceland IT solutions	www.graceland.co.in
4	Sivahari Nandakumar	2006 admission	Appropriate Technology promotion Society	www.atps.in
5	Anoop Jose Mohd. Mishal	2009 admission	Tecque solns pvt Itd	www.tecque.com
6	Nidhin Chandran	2008 admission	Mob	www.mobsoul.com
7	Nebu John Thaliyath	2008 admission	Conflicus software solutions	
8	Shyju B	2007 admission	Omega designs	designsomega.in

### Entrepreneurship initiatives ..cont'd

- The Entrepreneurship Development Club was started in September 2014
- The Following is the committee that will oversee the functioning of the EDC:
  - ·Staff Coordinator: Sreekumar K
  - •Student Coordinator: Jishnu Thampan

Members:

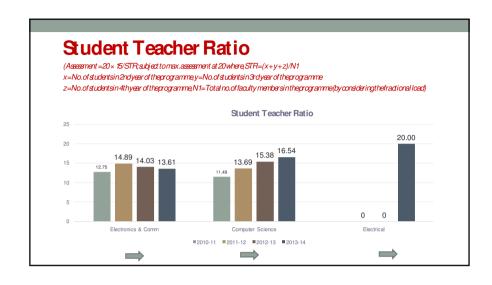
- ·Chairman, BOG
- Principal.
- •HODs of EC, CS and EE

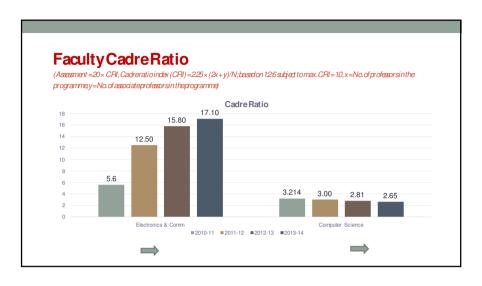
#### Awards/Prices (Inter-collegiate/State level/National)

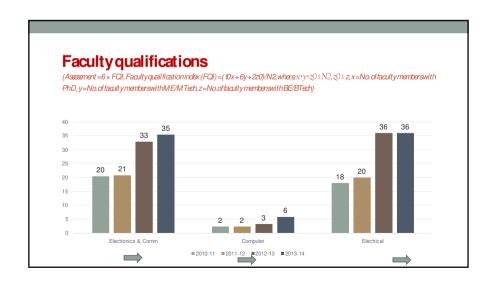
- First & second rank in CUSAT M.Tech (C & IS) examination 2014
- First & third rank in CUSAT M.Tech (SP) examination 2013
- First rank in CUSAT B.Tech (EC) examination 2013
- 1 CIVIL SERVICE SELECTION IN 2013(for a student of 2009 batch)
- HEXAPOD- AN AGRO-TECHNICAL PROJECT WAS SELECTED IN THE FINAL ROUNDS, AMONG 13 PROJECTS IN SRISHTI 2014 AICTE-IPS SPONSORED ALL KERALA PROJECT EXHIBITION AND COMPETITION
- First runner up in CUSAT inter college football tournament 2014
- Third place in 400 m in CUSAT inter college annual sports meet 2014
- Best Paper award for paper co-authored by Dr Vinu Thomas, at the International Conference on Advances in Image Processing, ICAIP-2014, Bangkok, Thailand, October 10-12, 2014.
- Best Paper award for paper co-authored by Dr Vinu Thomas, at the National Conference on Emerging Vistas of Engineering and Management (NCEVEM'14), Viswajyothi College of Engineering, Nov.24-24, Kerala, India

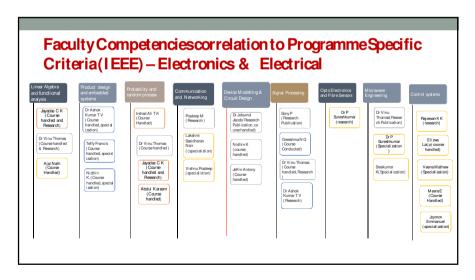
#### Awards/Prices(Inter-collegiate/Statelevel/National)..cont'd

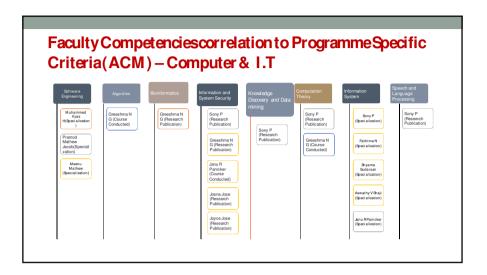
- First prize in grey cell ruffle- CET Drishti 2013
- Labview workshop- CET Drishti 2013
- Ethical hacking workshop- CET Drishti 2013
- Android workshop-FISAT Nautilus 2013
- Second prize in maze 2k13- RAJAGIRI KOCHI
- "INTELLIGENT WHEEL CHAIR"-A project selected by "CENTRE FOR DISABILITY STUDIES" IN 2012
- Group first in Cochin University youth festival 'sargam -12'
- · Group second in Cochin University youth festival 'sargam -12'
- Selected as the best public institution under vegetable development programme 2012-13 by the Department Of Agriculture Kerala
- Microchip-master certification for 2009-10

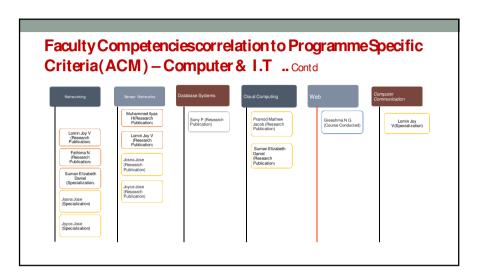


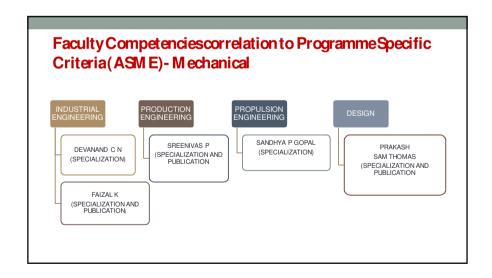


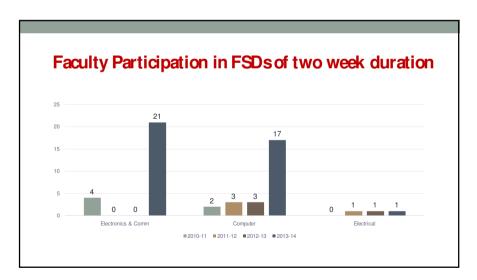


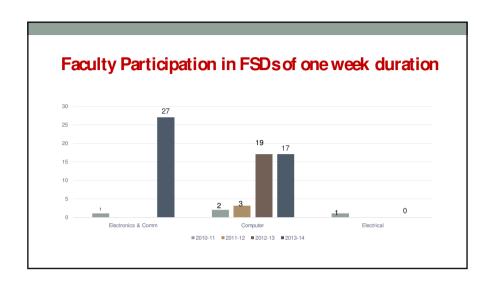


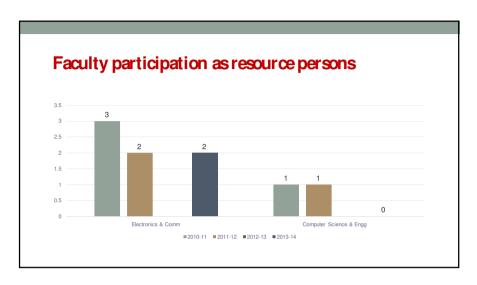


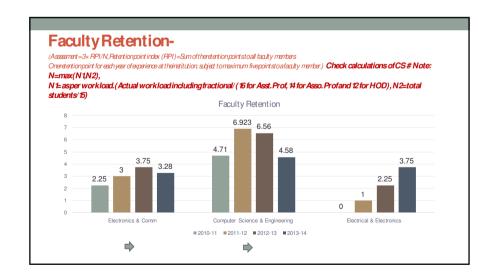


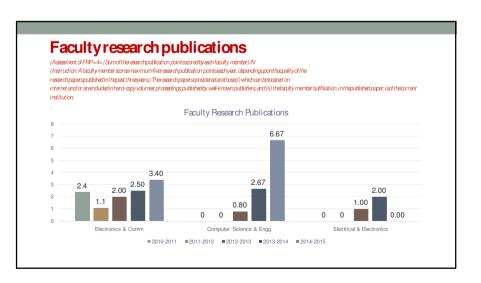


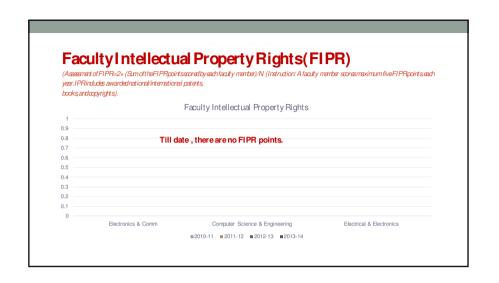


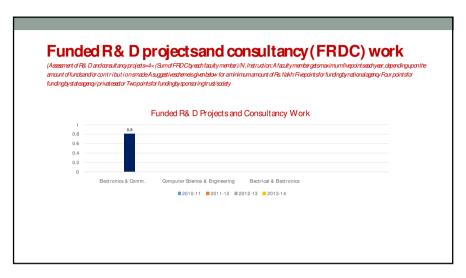


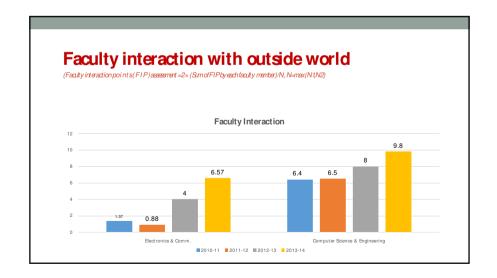


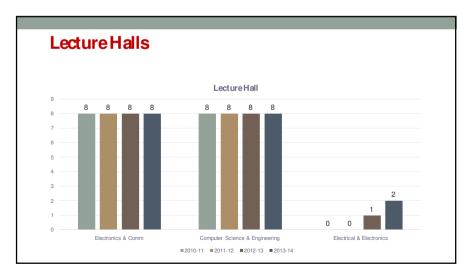


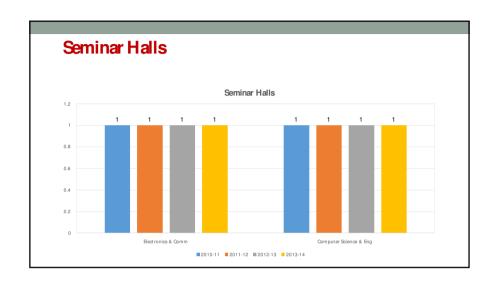


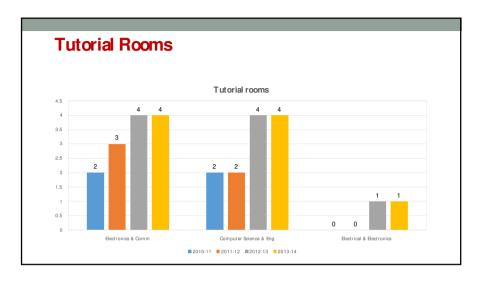


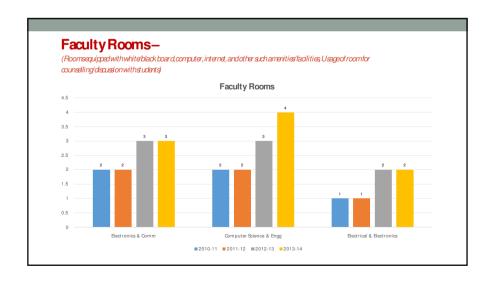


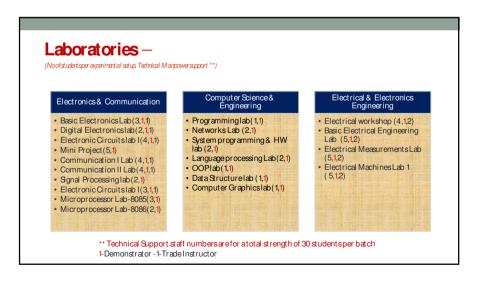












#### Lab manuals-

(Laboratoriesfor which lab manualsare available)

#### Electronics & Communication

- Basic Electronics Lab
- 8085 Microprocessor Lab
- Signal Processing Lab
- Electronics Circuits
   Lab I
- Electronics Circuits lab
- · Digital electronics lab
- Communication Lab II

#### Computer Science & Engineering

- Programming lab, Networks Lab
- System programming & HW lab
- Language processing Lab
- Object Oriented Programming lab
- Data Structures lab
- Computer Graphics lab

#### Electrical & Electronics Engineering

- Electrical workshop
- Basic Electrical Engineering Lab
- Electrical
   Measurements Lab
- Electrical Machines Lab 1

#### Language Lab — (How do you use it ?)

- As per curriculum Language lab is being conducted for first year students-one hour per week
- During Saturdays extra lab of 3 hours is being conducted for first year students
- Lab is being given to students for the soft skill training sessions of the finishing school.

#### **Tutorial Classes**

(Subject, no of students in a tutorial dass, hours)

## Computer Science

- 35 Subjects
- 1hour/ week
- 15 students/class

#### Electrical

- 35 Subjects
- 1hour/ week
- 15 students/ class

#### Electronics

- 35 Subjects
- 1hour/ week
- 15 students/

#### Mentoring System

(howdoyoument or student sindividually?)

- Constituting peer group
- Assigning ment or for each peer group of 15
- Open discursions within the group
- Attention given to the weak students by the group leader
- · Mentor meeting students individually once in two weeks
- Diary is maintained for each mentee showing details of issues, corrective measures etc...
- Mentor keeping contact with parents (at least twice in a semester)

#### Feedback analysis

(howdoyoudoit?Reward/correctivemeasures)

- Faculty evaluation twice in a semester by
  - Students
  - HOD
- Open discussion individually with faculty member by HOD regarding the evaluation
- Faculty member is directed to take necessary corrective measures based on the score for each points in the evaluation
- Best teacher award based on the overall performance (each department)

#### Scope for self learning

(Generation of self-learning facilities, and availability of materials for learning beyond syllabus)

- Open course wares from sites of MIT
- NPTEL lectures
- Attending online courses
- · Subscribing e-books, e-journals etc...

#### Career Guidance, Placement Unit

(Availability of Well furnished Seminar Hall, Central Computing Facility, Soft skill development, employability assessment)

#### The seminar hall

- · latest Audio and Visual equipments
- · fully air conditioned
- video conferencing facilities
- · Accommodating capacity- 120 persons.

#### Computing Facility

- · more than 300 computers
- · connected across a LAN and internet facility with NKN
- two powerful servers with 2X Intel Xeon E5 -26020 2.00 GHz Processors and
- servers such as HP-HPE2000 MS certified server, Zenith-SP(NSI) 5 PDS server and HCL infinity-global line 1450 server.
- The entire centre is efficiently powered by a backup power supply system.

#### Career Guidance, Placement Unit

Soft skill training conducted for the current Final Year Students

SI No	Soft skill Training	No of Days	
1	QUANTITATIVE APTITUDE	3days	
2	LOGICAL REASONING	3days	
3	VERBAL REASONING	2 days	
4	INTERVIEW TRAINING	1days	
5	MOCK INTERVIEW	2 days	
6	GROUPDISCUSION	2 days	
7	TECHNICAL TRAINING IN JAVA	5 days	
8	ENGLISH TRAINING	3days	
9	COMMUNICATION SKILLS	3days	

Employability Assessment

•Through AMCAT conducted by Aspiring Minds

#### Co-curricular activities

- · Conducted two Inter College Technical Fests in 2010 & 2013
- The technical events conducted under CS are 2010-2011:-
- · August : Technical Quiz
- · September: Hacksec Workshop on ethical hacking by TechDefence
- October: Training on events like Code De-Bugging, Gaming, Virus Programming etc. for ZEALOUS 2K10, inter-college tech-fest conducted by the college.
- November: Paper presentation training.
- · 2011-2012:-
- · October: Technical Quiz Zest 2010
- November: Android Workshop
- 2012-2013:-
- · August: Workshop on Computer Assembling, Web-designing workshop
- September: Python workshop
- · October : Technical Quiz EPISTIMY
- · February: Rally coding competition

#### Extra-curricular activities

#### ACTIVITIES CARRIED OUT BY THE NSS UNIT

- COLLEGE CAMPUS CLEANING EVERY YEAR
- PREVENTIVE MEASURE AGAINST
- CHICKENPOX
- A DAY AT OLD AGE HOME
- AIDING HAND
- **BLOOD DONATION**
- SEMINAR ON PERSONALITY DEVELOPMENT
- PLACED DUST BINS AROUND COLLEGE CAMPUS
- · ANNUAL SPECIAL CAMP

#### NATURE CLUB - BHOOMITHRA SENA

- Vegetable cultivation was done in campus
   CEC was awarded best public Institute in 2012-13 by Govt. of Kerala, Dept of Agriculture
- TECH FESTS (conducted in 2008,2010,2014)
- ARTS DAY
- SPORTS DAY
- College magazine

#### Facilities for Sports and Games

- Cricket and football ground 6000 m<sup>2</sup> area
- Accessories for cricket, football, volleyball, badmint on and chess
- Equipment for high jump, javelin and shot-put
- Play Ground construction (MLA Fund) 113024 Sq. Ft.

#### Campus Development and Management -

The following committee oversees the Campus Development proposals and activities:

- · Chairman, BOG
- Principal
- · HOD, EC Department
- · HOD CS Department
- . HOD EEE Department
- · Academic Coordinator
- Administrative officer
- PTA Vice President
- · College Senate Chairman

A Campus management Software is being procured under TEQIP

#### Campus Development and Management -

Main Block: 2015 sq:metres

#### Administration

Principal's room Conference room Exam Cell Administrative Office

#### **Academic**

Class rooms: 2 numbers EC labs- 5 numbers Central Computing Facility CS labs: 3 numbers Seminar Hall – 1 number

#### **Amenities**

Faculty rooms- 3 Ladies W aiting Room Toilets – 5

#### Campus Development and Management -

Academic Block I – 1005 square metres Class rooms: 9 Faculty rooms: 2 Toilets: 2

Library Block – 860 square metre Reading Room

Reference Section Lending Section PG Labs: 2 Class Rooms: 4 Toilet: 1 Academic Block II – 330 square metres Class rooms: 4

Administrative Block–
II- 400 square metre
Faculty rooms – 3
TEQIP Office
Cooperative Society
Research Lab-1
Toilets: 3
Cafeteria
Seminar Hall-1

T & P Cell office

Workshop Block – 562 square metre Mechanical W/S 1 Electrical W/S 1 Electrical Lab: 2

Generator Room – 20 square metre

Toilet Blocks - 50 square metre 2 no:s

#### Campus Development and Management –

New Academic Block (1980 Sq. Metre)

Facilities in the proposed block

#### **Ground Floor**

Class rooms - 2 Nos.
Staff room - 1 No.
Laboratory room-3
Seminar Hall - 1 No:
Toilet - 1 No.
Staircase: 2 No.s

#### First Floor

Class rooms - 4 Nos. Staff room - 1 No. Laboratory room-3 Toilet - 1 No:

#### Campus Development and Management -

All class rooms equipped with overhead multimedia projectors

4 smart class rooms

Video Conferencing Equipment

EPABX - 64 extension line, expandable upto 128 lines, 5 IP phone license

#### Projects awaiting sanction under RUSA

Faculty cabins 1938 Sq. Ft.
Tile laying work (GF of Main building) 21528 Sq. Ft.
Renovation of toilets including 1800 Sq. Ft.
ladies toilets
Space for Central Computer facility 3768 Sq. Ft.
Auditorium 3768 Sq. Ft.

## Campus beautification works being undertaken by PTA

Garden - 3550 Sq. ft. Laying of interlocking tiles - 8178 Sq. ft. inn the front yard and parking area

#### Hostels

Hostel facility is not available at present

#### Canteen -

Existing canteen facility will be augmented with 1350 Sq. ft. area (Under RUSA)

#### Transport facilities

#### Buses plying in following routes

- Bus no 1: CE Cherthala Cherthala town- Aroor-Poochakal-CE Cherthala
- Bus no 2: CE Cherthala Aroor-Vytilla- Edappally Model Engg college
- Bus no 3: CE Cherthala Cherthala town- Alappuzha
- Maruthi omni van office purposes

## ELECTRICITY, POW ER BACKUP, TELECOM AND VIDEO CONFERENCE SYSTEM

- Equipped with dedicated 250A 3 phase transformer from 110 KV to college main distribution panel.
- UPS back up facility for labs
- Diesel generator backup -62.5 KVA procured under TEQIP. All laboratories, seminar halls, having generator backup
- All labs, staffrooms, workshops, library & office are connected with EPABX with VoIP technology with 64 Analog lines and 5 IP lines.
- Equipped with video conferencing system.

## ELECTRICITY, POW ER BACKUP, TELECOM AND VIDEO CONFERENCESYSTEM

LABS	UPSCAPACITY	EXISTING	TEQIPPURCHASE
CIRCUITSLAB, DIGITAL LAB & COMMUNICATION LAB	5KVA-1NO.	5KVA- 1NO.	5KVA-1NO.
DSPLAB	5KVA-1NO.	NIL	5KVA
COMPUTER LAB1	5KVA-2 NOS 6KVA-1NOS 3KVA-1NOS	10KVA-1NO.	5KVA-2 NOS 6KVA-1NOS 3KVA-1NOS
COM PUTER LAB2	5KVA-2 NOS	5KVA-1NO.	5KVA-1NO.
COM PUTER LAB3	5KVA-I NO.	NIL	5KVA-1NO.
OFFICE& PRINCIPAL ROOM	5KVA 1NO.	NIL	5KVA-1NO.
M.TECH LAB EC & CS,NKN SERVER AND LIBRARY	5KVA-2 NOS. 3KVA-1 NO.	3KVA-1NO.	5KVA-2 NOS. 3KVA-1 NO.
SEMINAR HALL	3KVA-1NO.	NIL	3KVA-1NO.

#### **Drinking Water**

#### Existing Facilities

- 1. Two no. of RO water purifiers.
- 2. One water cooler connected to RO water purifier.

#### Proposed Plan

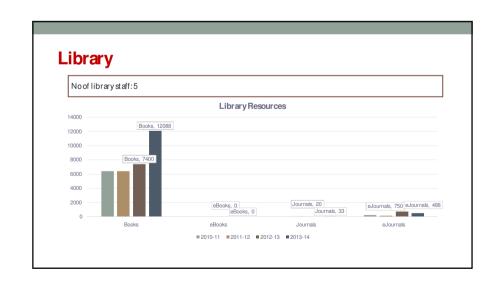
MINERAL RO WATER PURIFER(15 Lt/Hr) - 4 Nos. (Initiated under TEQIP)

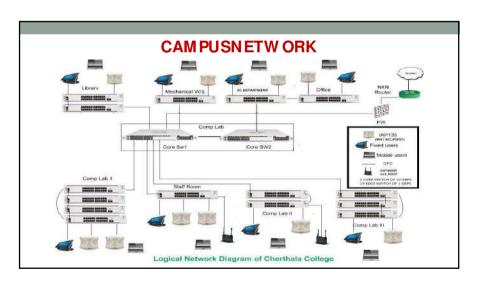


#### Grievance redressal forums

• Provision for Online Grievance Lodging & Monitoring System through the college website.

#### **Budget & Expenditure** 2013-14 2010-11 2011-12 2012-13 Amount Received as Block Grant 1177572 4144000 2500000 Student Fee 20971400 28007955 37288545 46581416 IRG From Externally funded project/consultancy **TEQIP** Grant 3 Crore Total Annual recurring 22576088 31628526 38720512 31293591 expenditure Scholarship 717465 20375 402160 37288545 Procurement and Training using 2.65 Crore TEQIP funds





#### Campus Network .. Cont'd

- Campus dat a net work of eight net work broadcast sub domain.
- The sub domains connected with single mode six cores optical fiber cable backbone and a 10 Gbps core switch. (One more 10 Gbps core switch provided as standby).
- The sub domains consist of 1 Gbps edge switch of 15 numbers and indoor wifi access of 10 numbers. It can connect up to 360 numbers of UTP outputs
- The front and rear sides of main building block have outdoor wifi access service.

#### Campus Network .. Cont'd

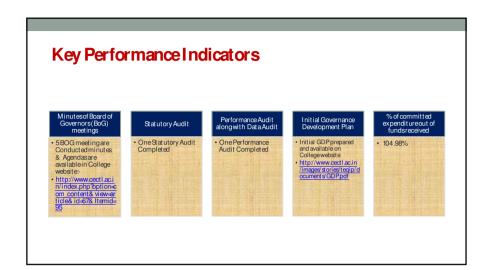
- National Knowledge Network (NKN) with 100 Mbps line and BSNL broadband are the Internet Service Providers
- Up to 500 students can use internet facility simultaneously.
- The sub domains are Library, Mechanical/electrical workshop, computer lab1, computer lab2, computer lab3 (R& D lab), Office, Electronics department, General staff room.
- Facility to make normal and IP phone calls all over the campus
- Invested up to 37 lakh rupees on Campus N/w.

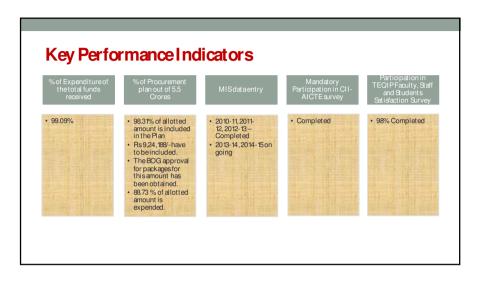
#### Safety norms and checks

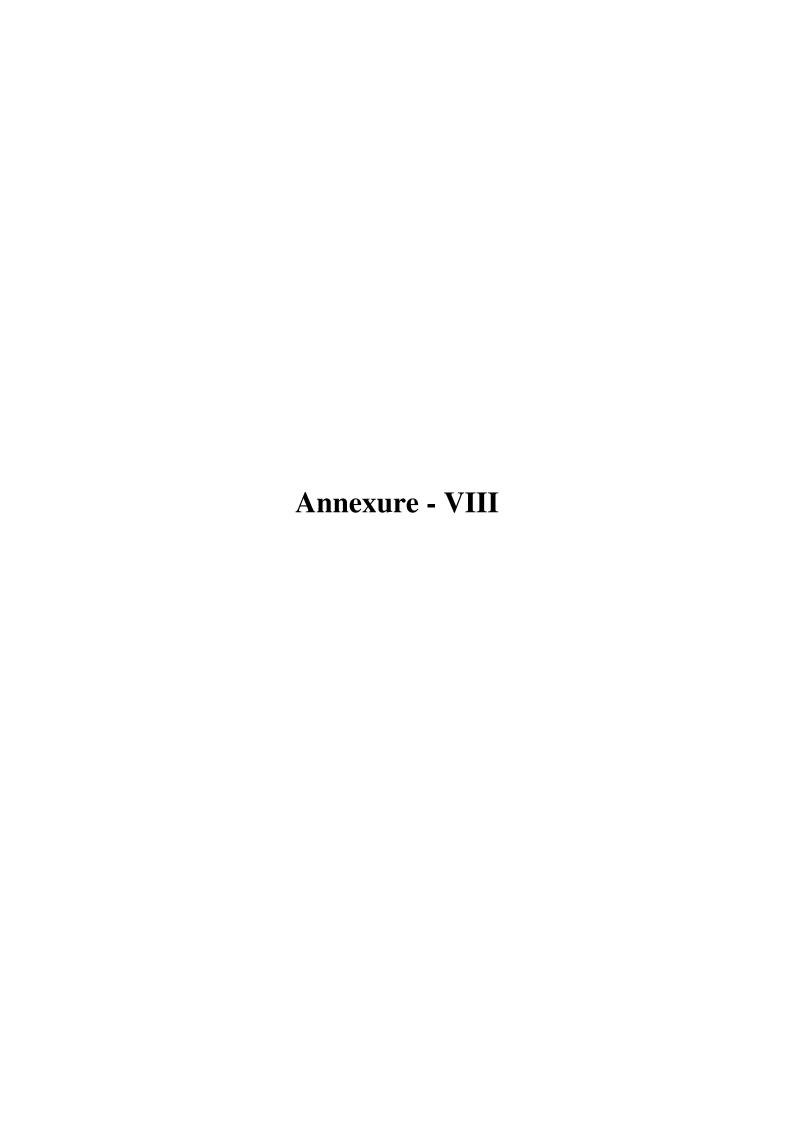
- work is initiated for fitting fire extinguishers in the campus, under TEQIP
- work is initiated for fitting lightning arrester under TEQIP

#### Counselling & Medical Care

- Class wise counselling and motivation sessions were conducted for all S4 and S6 students during last semester (Jan.14-Mar.14)
- During this academic year counselling and motivation sessions are scheduled to be conducted on 16,20,21,23/10/14 to first year students(4 batches)
- Sgned an MoU with the S.H. Hospital Mathilakam P.O., Cherthala for in patient and out patient care, ambulance facility, pharmacy services, diagnostic equipments etc for students and staff.

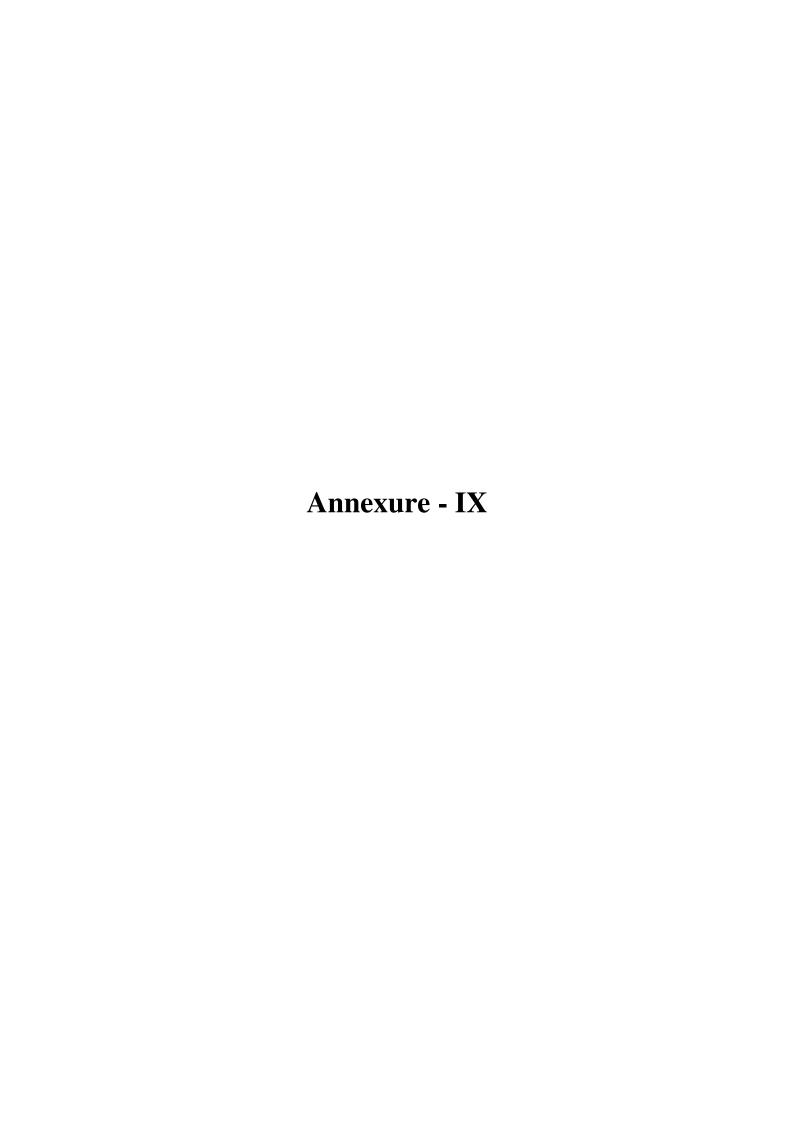






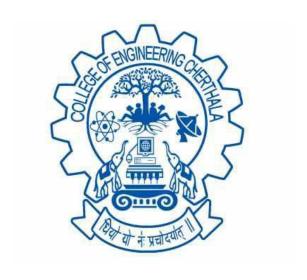
	Self-Assessment Re	port		
No.	Parameter	EC	CS	Max
1	Student Success Rate	19.2	16.2	30
2	Academic Performance	14.45	14.26	20
3	Placement & Higher Studies	19.22	21.64	30
4	Professional Activities	19.22	10	20
	Tiolessional Activities	12	10	20
	Faculty			
1	STR	17.59	12.29	20
2	Cadre Ratio	10.36	2.6	20
3	Faculty Qualification Index	14.21	9.5	30
	Faculty Competency in correlation of Programme specific	17.21	7.5	30
4	criteria	10	10	15
5	Faculty as Participants/Resource Persons in FDP	7.9	5.48	15
6	Faculty Retention	8	7.53	15
7	Research Publications	2.47	1.11	20
8	FIPR	0	0	10
9	Funded Projects	1	0	20
10	Interaction with outside world	6.11	5.21	10
	Facilities and Technical Support			
1	Class rooms	25	25	30
2	Faculty Rooms	8	8	20
3	Laboratories	33	33	60
4	Technical Man power	14	14	15
	Academic Support Units and Teaching Learning			
1	First Year Student Teacher Ratio	7.5	7.5	10
2	Assessment of Faculty Qualification in teaching first year Common Course	15	15	15
3	Language Lab	2	2	2
4	Basic Science and Engineering Labs	5	5	8
4	Dasic Science and Engineering Laus		3	0
5	Teaching Learning Process	24	24	40
	Governance, Institutional Support, Financial Resources			
1	Campus Infrastructure & Facility	7	7	10
1	Campus initastructure & Facility	/	/	10

2	Organization, Governance and Transparency	6	6	10
3	Budget Allocation, Utilization and Public Accounting	8	8	10
4	Programme Specific Budget Allocation & Utilization	7	7	10
5	Library	16	16	20
6	Internet	5	5	5
7	Safety Norms and Checks	4	4	5
8	Counselling, Emergency Medical Care & First Aid	4	4	5
1	Mission and Vision, PEO	50	50	75
2	Programme Outcomes	85	85	150
3	Programme Curriculum	90	90	125
4	Continuous Improvement	45	45	100
	TOTAL	603	576.3	1000



#### COLLEGE OF ENGINEERING CHERTHALA

# GOVERNANCE DEVELOPMENT PLAN



Institution   1.1   Educational Programmes   1.2   Organizational Structure   1.3   Regulating Authorities   1.4   Board of Governors   1.5   Organizational Structure for administration of the institute   2   Mission, Vision and Values   3   Our Governance Purpose   3.1   The Beneficiaries   3.1.1   Students   3.1.2   Faculty   3.1.3   Institution   3.1.4   Society   3.1.5   Industry   4   GOVERNANCE VALUES   4.1   Primary accountabilities   4.2   Openness and transparency in the operation   4.3   Effectiveness and performance review of governing body   4.4   Regulatory Compliance   5   STRATEGIC PLAN FOR GOVERNANCE   5.1   Procedure Adopted For SWOT Analysis   6   FORMULATION OF STRATEGIES FROM GOALS AND OBJECTIVES   6.1.1   Educational Processes   6.1.2   Human Resources   6.1.3   Financial Resources   6.1.4   Physical Resources	1 2 2 3 3 5 6 7 7 7 7 8 8
1.2 Organizational Structure 1.3 Regulating Authorities 1.4 Board of Governors 1.5 Organizational Structure for administration of the institute 2 MISSION, VISION AND VALUES 3 OUR GOVERNANCE PURPOSE 3.1 THE BENEFICIARIES 3.1.1 STUDENTS 3.1.2 FACULTY 3.1.3 INSTITUTION 3.1.4 SOCIETY 3.1.5 INDUSTRY 4 GOVERNANCE VALUES 4.1 Primary accountabilities 4.2 Openness and transparency in the operation 4.3 Effectiveness and performance review of governing body 4.4 Regulatory Compliance 5 STRATEGIC PLAN FOR GOVERNANCE 5.1 Procedure Adopted For SWOT Analysis 6 FORMULATION OF STRATEGIES FROM GOALS AND OBJECTIVES 6.1.1 Educational Processes 6.1.2 Human Resources	2 3 3 5 6 7 7 7 7 7 8 8
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#### 1. THE INSTITUTION

College of Engineering Cherthala, a relatively young institute, was established in the year 2004 by the Government of Kerala, under the aegis of the Institute of Human Resources Development (IHRD). The institute is located at Pallippuram village 8 km north to Cherthala town in the district of Alappuzha in Kerala. With the continuous and prompt effort of all of its stake holders, the institute is on its way to become a premier institution offering quality Engineering Education in Kerala. The institution is affiliated to CUSAT, a prominent university in India's technical education scenario. Right from its inception, the College has been maintaining high standards in both academic and extracurricular performance. The institution has consistently reaped equal or above average success as the university level even amidst the general degradation in academic standards in Engineering Education all over the nation.

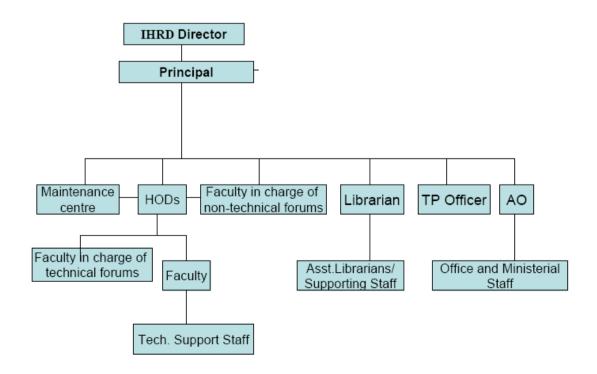


#### 1.1 EDUCATIONAL PROGRAMMES

- The college offers the following UG programs in Engineering.
  - B. Tech. in Electronics & Communication Engineering
  - B. Tech. in Computer Science & Engineering
  - B. Tech. in Electrical & Electronics Engineering
- The college also offers the following PG programs in Engineering.
  - M. Tech. in Signal Processing
  - M. Tech. in Computer and Information Science

#### 1.2 ORGANISATIONAL STRUCTURE

College of Engineering Cherthala is managed by Institute of Human Resources Development, A Govt. of Kerala Undertaking. The College has an organization structure as shown below.



#### 1.3 REGULATING AUTHORITIES

The institution is regulated by multiple authorities. The approval is done by All India Council for Technical Education and the Degree is granted by Cochin University of Science and Technology.

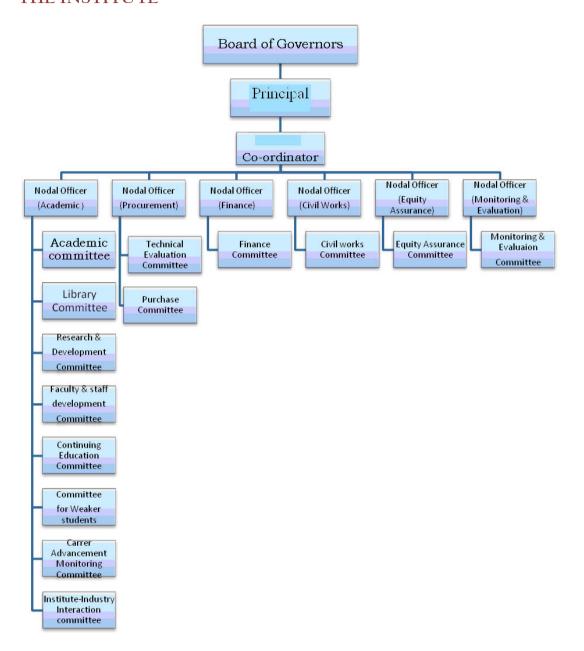
#### 1.4 BOARD OF GOVERNORS

Government of Kerala Via G.O. (Ms.) No: 473/2012/H.Edn Dated, 28.09.2012 has constituted a Board of Governors (B.O.G) as per the guidelines of UGC/AICTE. All stakeholders are adequately represented in the Board of governors. There are representatives from the statutory bodies, Government, faculty and industry. The composition of the B.O.G is as below.

Sl.	Name of Member of	Qualification and position in	Position in	Catagory	Nature
No	BoG	the current engagements	the BoG	Category	Nature
1	Dr. C .P. Girijavallabhan	PhD Professor Emeritus, International School of Photonics, Cochin University of Science & Tech., Cochin	Chairperson	Educationist	Nominated by the State Government
2	Jacob Mathew	B Tech, MBA Vice-President, Idea Mobiles India Ltd	Member	Industrialist	
3	Dr. V. P. Devassia	PhD Principal, Model Engineering College, Thrikkakara, Kochi	Member	Educationist	
4	Pradeep M	M Tech Associate Professor and Head of Electronics Department	Member	Educationist	Nominated by the
5	Manilal D L	M Tech Associate Professor and Head	Member	Educationist	Institution

		of Computer Science			
		Department			
		B. Tech, MBA			
		Managing Director,			Nominated
6	Salim.M.K	Assure Tech Business Solution	Member	Professional	by the
	ouiiii.ivi.iv	Pvt Ltd	ivicinger	Troresoronar	Institution
		,Thejaswany,Technopark,			inocicación
		Thiruvananthapuram			
		Additional Secretary, Higher			State
7	Sherif M	Education, Govt. of Kerala	Member		Government
		25353315131, 6 6 7 6 7 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 7 7 6 7 7 7 6 7 7 7 6 7 7 7 7 6 7			Nominee
	James Joseph	Joint Secretary, Finance, Govt.			State
8		of Kerala	Member		Government
					Nominee
		PhD			
	Dr.Philip Kurian	Professor, Department of			
		Polymer Science and Rubber			
9		Technology, former Controller	Member	Educationist	University
		of Examination And Dean of			Nominee
		Faculty of Engineering Cochin			
		University of Science and			
		Technology, Cochin, Kerala			
		PhD			
10	Dr.P.Suresh Kumar	Principal,	Member	Educationist	Ex-officio
		College of			
		Engineering,Cherthala			

## 1.5 ORGANIZATIONAL STRUCTURE FOR ADMINISTRATION OF THE INSTITUTE



- ➤ The Board of Governors will meet as required to take all-important policy decisions.
- ➤ Various committees under the Board of Governors will implement institutional level development plan.

## 2. MISSION, VISION AND VALUES

The college has established specific objectives and strategies to achieve the goals with explicit mission and vision.

#### Our mission

To create professionals with competency and values who will be the forerunners in technology, contributing to the Society and the Country

#### Our vision

To evolve into a contributing centre of excellence in knowledge and technology, to create globally competitive professionals who would contribute profusely to the society.

#### Values

- Excellence
   Our educational programs will be of the highest quality.
- Openness

We will communicate openly and treat everyone fairly as we value the opinions and respect the needs of all.

- Ethics
  - High ethical standards and sound decision-making will be at the heart of our activities and financial practices.
- Diversity
  - Diverse people and ideas produce lasting solutions and we will encourage diverse ideas from all stake holders and the society in general, for the solution of various problems the institution may face.
- Co-operation

We will forge partnerships on and off campus in our drive to solve society's complex problems and improve the quality of life.

#### 3. OUR GOVERNANCE PURPOSE

To achieve calibrated improvement in quality of technical education at UG and PG levels by building on existing strengths and exploiting the emerging opportunities.

The institution governance is to strengthen its facilities to improve learning outcomes, employability of graduates and to uplift the standard of UG & PG education through the support from Govt. of India and Govt. of Kerala, by way of infrastructural development, faculty and staff development, R & D activities and industry-institute interaction.

#### 3.1 The Beneficiaries

The main beneficiaries are the students, faculty, staff, institution, the society and industry. Some of the benefits for each of the stakeholders are described in brief as follows:

#### 3.1.1 Students

- > Improved employability
- Increased industry-institute interaction
- > Better adaptability to industry needs
- Better academic ambience
- > Scope for research activities
- Support to financially and academically weaker students

#### 3.1.2 Faculty

- > Better opportunity for enhancement of knowledge and management capacity
- Quality Improvement
- > Industrial exposure
- ➤ Consultancy, testing and R & D opportunities

#### 3.1.3 Institution

- Motivated, creative and qualified faculty
- > Sustained efforts to accomplish the Vision
- > Better adaptability to global needs
- > Recognition at National and International level
- > Academic Autonomy
- > Enhanced IRG

#### 3.1.4 Society

- > Opportunity for better education
- ➤ Skill development opportunities
- > Better accessibility to technical environment
- > Easy availability of technical support

#### 3.1.5 Industry

- ➤ Availability of high quality human resource satisfying their pre-requisites
- ➤ Result oriented sponsored R & D projects
- > Technology transfer
- > Exposure to the academic environment and expertise

#### **4.GOVERNANCE VALUES**

#### 4.1 PRIMARY ACCOUNTABILITIES

- To approve the mission and strategic vision of the institution
- To enable the institution to achieve and develop their mission and primary objectives for learning, teaching and research through strategic planning
- To ensure the establishment and monitoring of proper, effective and efficient systems of control and accountability
- To monitor institutional performance and quality assurance arrangements
- To put in place suitable arrangements for monitoring

#### 4.2 OPENNESS AND TRANSPARENCY IN THE OPERATION

- Publishing an annual report on institutional performance
- Providing as much information as possible to students, faculty, public and potential employers on all aspects of institutional activity related to academic performance, finance and management.
- Ensuring that all reported information, including that conveyed in marketing campaigns, is truthful.
- Conducting proceedings of governing bodies in an open manner as much as possible that is permissible by statute
- Student admission information to ensure public trust and confidence
- 5. Maintaining a register of interests of members of its governing body Ensuring that vacancies are widely publicized both within and outside the institution

## 4.3 EFFECTIVENESS AND PERFORMANCE REVIEW OF GOVERNING BODY

• Effectiveness is measured against both an institution's statement of primary accountabilities

• Structures and processes will be revised accordingly, as part of the governing body's ongoing regular review processes

#### 4.4 REGULATORY COMPLIANCE

- The Governing body ensures compliance with the statutes, ordinances and provisions regulating their institution, including regulations by statutory bodies, such as the AICTE and UGC, as well as regulations laid out by the State government and affiliating university and takes all final decisions on matters of fundamental concern to the institution.
- The regulatory compliance includes demonstrating compliance with the 'not-for-profit' purpose of education

### 5. STRATEGIC PLAN FOR GOVERNANCE

The college realizes the need for strengthening its activities to improve the learning and employability of the students, the need to improve the research outputs and involvement with consultancy assignments by the faculty members of the institution and the need to enhance the collaboration with industries. A strategic plan has been prepared with the objective of elimination of its weakness while further consolidating its strength based on a SWOT exercise.

#### 5.1 PROCEDURE ADOPTED FOR SWOT ANALYSIS

The SWOT analysis involved strategic sampling from a domain of all stake holders, viz. students, faculty and staff as well as parents. A technical analysis of the data thus collected was conducted for identifying the internal factors, viz. strengths as well as weaknesses and for pinpointing the external factors, viz. opportunities available for exploitation and threats that were to be overcome by the institution.

A workshop on SWOT was conducted where all faculty, representatives from support staff and student representatives from each class participated. Subsequently a brain storming session for SWOT analysis was conducted by the participants separately in all departments with a facilitator in each group. The institutional BOG members took the lead in the deliberations.

The SWOT exercise undertaken has helped to identify the key strengths, weakness, opportunities and threats. The salient features derived from the SWOT analysis are summarized below:

# Dedicated, young and relatively well experienced faculty with ample motivation and potential to grow. Five faculty in the Dept. of Electronics Engineering have Doctoral degrees. Integrity in Appointments of Faculty and Staff Integrity in the admission process, where merit is the only criterion. Effective teaching with personalized interaction with students leading to good student teacher rapport Availability of vast tracts of land for developing new infrastructure facilities

	Insufficient funds for Development and Training: Financial Model of the
	institute is self financing. Salaries and other overheads have to be met from fee
	collected, with only limited Govt. funding, leaving little for infrastructure
	development and training of faculty and staff.
_	Number of permanent faculty need to be enhanced
Weakness	Partnership with industry and premier research and academic institutions
	need to be improved for potential development.
	Digital library facilities need to be improved.
	Placements are to be enhanced.
	Lack of Hostel Facility for students
	Increased demand for PG / Research programmes due to escalation in number
	of under graduates, and increased requirement for qualified personnel with
	specializations, for academia and industry
	NABARD funding for construction of additional academic block.
	Proximity to Info park, Cherthala and various industries in Cochin and
	Alappuzha viz. SILK,AUTOCAST, Keltron Controls
	Located nearer to KSIDC where lot of industrial and infrastructural
Opportunities	development projects of central and state governments are proposed
	Scope to provide quality education in cost effective manner
	Demand for industry oriented research and innovation.
	Availability of TEQIP funds to enhance laboratory infrastructure, faculty and
	staff training and finishing school for the students.
	Opportunity to attain academic autonomy
	Availability of standards and Accreditation Processes for Quality Assurance
	Insufficient funds for starting innovative and need based programs.
	Inadequacy in resources to retain the staff by addressing their intellectual
	needs
er.1	Disproportionate increase in no. of engineering seats in the state
Threats	Obsolescence of current laboratory equipment
	Lack of academic flexibility.
	Growing number of Private Institutions, with better civil infrastructure
	facilities in the vicinity
<u> </u>	

The features in each category (Strength, Weaknesses, Opportunities and Threats) were noted, collected and abridged. Strategies were developed based on four combinations

- 1. Strength and Opportunities
- 2. Strengths and Threats
- 3. Weakness and Opportunities
- 4. Weakness and Threats

These strategies were considered as a guideline for the preparation of action plan for the development of the institution. The strategic plan for the development of the institution is derived from the following observations in the SWOT analysis.

College of Engineering Cherthala is equipped with the resources for project planning and implementation. It is having well experienced, motivated and relatively young faculty and good students are obtained as input. Its laboratory facilities are being utilized well.

However, lack of funds has been a major hindrance for training, modernization and setting up of new laboratories. Limited interaction with industry and lack of research activities and consultancy services are also regarded as weakness. The infrastructure facilities need to be improved. Vacancies in the top management at the level of Professors and Associate Professors and entry cadre at the level of Assistant Professors need to be filled up by promotion of eligible faculty and recruitment.

From SWOT analysis, 4 strategies – SO strategy, WO strategy, ST strategy and WT strategy – were developed for the institution and are summarized below.

	S-O STRATEGIES		W-O STRATEGIES
1	Emphasis on research, tie-ups with national and international Universities; collaboration and joint ventures with industry, setting up of a research centre in Electronics Engineering.	1	Procure sophisticated equipment and improve lab facilities in thrust areas.
2	Student and faculty exchange programmes and promoting eligible faculty to improve the morale and motivation.	2	Devise avenues to retain faculty with potential, and enable the use of creative student potential
3	Development of the student's potential through	3	Become an autonomous institution,

	soft skill and professional		financially and academically
	skill development programs conducted under the		
	aegis of a finishing school		
4	Catering for the demand of industry centric specialized workforce, by revision of curricula to suit industry requirements, once autonomy is achieved.	4	Adequate training programmes for staff and students
5	Enhancement of learning resources and facilities by availing ICT learning, and improving E learning	5	Add new UG programs in Core Engineering subjects and PG Programs

	S-T STRATEGIES		W-T STRATEGIES
1	Incentive for faculty doing research and R&D work; conducting remedial classes	1	Library facilities should be improved.  Procure more text books and subscribe to more number of online International  Journals
2	Academic autonomy should be obtained at the earliest	2	Finishing school should be started to improve the soft skill of students
3	Faculty development for effective teaching and research competence	3	Explore the possibility of entering into collaboration with R&D Institutions and Industry
4	Regular updation of lab cycles and improvement in lab equipment.	4	Regular orientation courses on emerging trends in job markets to strengthen the placement activities.
5	Starting of add on courses with practical orientation.	5	Obtaining Non Plan Grant funds from the Govt. for infrastructure development including hostels and play grounds, Raising funds from government agencies, starting new courses, consultancy and government funded projects.

# 6. FORMULATION OF STRATEGIES FROM GOALS AND OBJECTIVES

Following the SWOT analysis, the institution has acquired the capability to monitor the micro and macro environmental factors that could affect its functioning. SWOT analysis is a subjective approach and now that it has been undertaken, the institution has moved onto specific "Goal Formulation" for the development of a strategic plan. The Goals have been formulated following a specific hierarchy, from the most important to the least important. Care has been taken to ensure that the Goals are realistic. These Goals, derived from the subjective portion of the SWOT analysis are statements of direction of effort towards achieving the Mission and the long term Vision.. It is observed from the SWOT analysis that the institution has the opportunity for the enhancement of research activity, development of faculty & staff and starting of new PG & UG programmes which will help in attaining its long term vision of becoming a centre of excellence in knowledge and technology. Insufficient funds for starting innovative and need-based programmes, obsolescence of lab equipments, lack of civil infrastructure including hostel facility etc are perceived as major threats. An important factor is the demand for more research facilities in Engineering and technology in the state and country to bridge the gap between supply and demand of Engineering Post Graduates and Ph.Ds. As the institution is having a pool of well-qualified and experienced faculty, the same may be tapped to equip the institution with courses and research opportunities in most demanding areas.

Once the Goals were formulated, they were mapped on to specific precise and tangible Objectives, milestones that are to be realized in order to achieve the Goals. Care was taken to ensure that the Objectives so framed were specific, measurable, attainable, relevant and time bound. The Strategies were formulated by listing out the Goals, mapping them onto specific and tangible objectives and by listing out the strategies for achieving the goals.

#### The Goals were broadly grouped into essential categories concerning the following:

- Educational Processes
- Human Resources
- Financial Resources
- Physical Resources
- Relationship building
- **4** Governance

#### The Goals in the category Educational Process were identified as below,

- 1.Improving Academic Performance
- 2.Improving the teaching learning process
- 3. Enhancing research and consultancy
- 4. Scaling up of PG Programmes

#### The Goals in the category Human Resources were identified as below,

- 1. Improving the input quality of the institute
- 2. Training for faculty and staff
- 3. Improving Employability of the Graduates
- 4. Improving morale and motivation of Faculty and Support Staff
- 5. Recruitment of faculty and support staff

#### The Goals in the category Financial Resources were identified as below,

- 1. Consultancy work by Faculty
- 2. Undertaking sponsored research projects from funding agencies
- 3. Increasing intake of students to improve revenue
- 4. Continuing Education Programmes for students and practising Engineers to improve revenue

The Goals in the category Physical Resources were identified as below,

- 1. Improving Civil Infrastructure facilities
- 2. Improving Laboratory facilities
- 3. Improving Campus networking

The Goals in the category Relationship Building were identified as below,

- 1. Improving industry interaction
- 2. Improving interaction with Reputed Academic Institutions
- 3. Alumni for leveraging their contributions to their Alma Mater

The Goal in the category Governance were identified as below,

1. Achieve Autonomy

These Goals were mapped onto tangible objectives and strategies to achieve the objectives were devised after deliberations among the various stake holders, viz. the Board of Governors, Faculty and Support Staff, Student Representatives and Representatives of the parents. This mapping is illustrated in the following tables.

.

#### 6.1.1 Educational Processes

GOALS	OBJECTIVES	STRATEGIES	Key Performance Indicators
1.Improving Academic Performance	Avoid loss of contact hours by compensating for classes lost due to unforeseen circumstances	Compensate for lost working days by working on the following Saturday	Pass percentage improved by 5 % per year and 10 % in two years
	Reduce Absenteeism in the class by 50%	Effective staff advisory system for interacting with students and parents, campus automation software to convey daily attendance of students	
	Improve pass percentage by 5 % in two years	Remedial coaching for weaker students	
		Conduct Scholar classes by Expert Academicians and Scientists for introductory sessions for analytical subjects in the curriculum	
2.Improving the teaching learning process	All faculty members to utilize multimedia facilities for teaching	Install Multimedia projectors in all class rooms, install Interactive white boards in all seminar halls	Student Feedback indicating improved imparting of knowledge in class room.

	Use of Simulation software (especially Open Source) to be promoted among faculty and students and at least 50% of Engineering faculty to use such tools for lectures	Faculty and Students to be given extensive training on such software	
	Promote the use of learning platforms such as Moodle	Provide a Moodle server and encourage faculty and students to develop e-content	
3. Enhancing research and consultancy	All faculty with MTech registering for PhD within two years	Increase number of faculty deputations for research	All regular faculty acquiring PhD in 7 years
	All senior faculty to undertake one industrial consultancy/sponsored research project from funding agencies	Allocate points for such activities while awarding grade promotions	All senior faculty at the level of Associate Professor or above undertaking at least one consultancy work/sponsored project

	All faculty to attend in house and external IIIC workshops		
4. Scaling up of PG Programmes	Curriculum revision of current PG programmes	Achieving Academic Autonomy  In the short run (before Academic Autonomy is achieved, approach Board of Studies of CUSAT for curriculum revision)	The curriculum for the current PG programmes being revised in two years.
	Start PG Programmes in Manufacturing Management and Power Systems	Submit proposal to State Govt., Affiliating University and AICTE for necessary administrative sanctions	The new PG Programmes commencing in two years.

## 6.1.2 Human Resources

GOALS	OBJECTIVES	STRATEGIES	Key Performance Indicators
1. Improving the input quality of the institute	All students admitted on general merit to have entrance rank better than 10000, in five years	providing hostels, improved transport and recreational facilities	Improved results and placements
2 Turinin a fan	All faculty to undergo basic and advanced pedagogical training in two years	Utilize the training programmes conducted by NITTRs	Improved teaching as reflected in student satisfaction survey
2.Training for faculty and staff	All faculty to undergo subject domain training every year	Utilize the training programmes organized by IITs and other reputed Institutes	
3. Improving Employability of the Graduates	Setting up of Finishing school to provide soft skill training to all students	Conduct diagnostic tests to identify students who require greater attention to improve their soft skills. Procure services of a reputed trainer to provide soft skill training	Improved placements

	Every student in the final and pre-final year to undertake Industrial visits .Conduct Industry Interaction programmes for all students to make them aware of Industrial practices and requirements	Make Internships in Industry mandatory for the final and pre-final students	
4. Improving morale and	Timely award of service benefits	Modify service rules appropriately, Convene meetings of the Department Promotion Council for award of benefits to eligible faculty and staff	Improvement in faculty/staff satisfaction survey
motivation of Faculty and Support Staff	Avoiding red tapism in the administrative setup	Ensure file movement, sensitize administrative staff, strict monitoring of file movement	
5. Recruitment of faculty and support staff	Ensure timely recruitment process once autonomy is achieved	Complete formalities for achieving academic autonomy	At least 70 % of faculty positions to be filled by regular faculty

In the interim, fill vacant positions on one year contract basis	Represent the parent body for the same	
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# 6.1.3 Financial Resources

GOALS	OBJECTIVES	STRATEGIES	Key Performance Indicators
1. Consultancy work by Faculty	All regular faculty to undertake consultancy work	Give service incentives by way of points for awarding grade promotion, and allow the concerned faculty to retain 20% of the fund generated through consultancy	Number of consultancies undertaken
2. Undertaking sponsored research projects from funding agencies	All faculty with Doctoral Degrees to undertake sponsored research from funding agencies	Provide seed money to conduct initial studies, utilize student projects at PG level, submit to funding agencies for approval	Number of Sponsored research projects and revenue generated
3. Increasing intake of students to improve revenue	Start additional batch of 60 students in BTech Electrical Engineering, and increase intake of students in BTech Computer Science from 90 to 120 in next academic year	Submit proposal to Govt of Kerala, CUSAT and AICTE	Increased revenue
4. Continuing Education Programmes for students and practising Engineers to improve revenue	All Departments to conduct at least one Add on Certification Programme, open to students of other colleges and practicing Engineers	Advertise in Leading state dailies	Number of programmes and revenue generated

# 6.1.4 Physical Resources

GOALS	OBJECTIVES	STRATEGIES	Key Performance Indicators
	Providing Hostel ,Canteen facility for students and staff		
1. Improving Civil Infrastructure facility	Providing Additional Built up space for Laboratories , Class rooms, Auditorium and Toilet Block	Utilize PTA funds, plan funds from State Govt, and seek assistance from MLA and MP funds	Better quality in the intake of students
	Improving the recreational facilities including playground and Amphitheatre facility		

2. Improving Laboratory facilities	All obsolete equipments in existing laboratories to be replaced	Utilize TEQIP-II funds for procurement to modernize laboratories and setup new laboratories	Number of laboratories modernized and number of new laboratories established
3. Improving Campus networking	Provide networking through OFC backbone and Wi-Fi	Utilize TEQIP-II funds for procurement of equipments and installation	Percentage of Total Campus area that has been networked, data rates, number of access points

# 6.1.5 Relationship Building

GOALS	OBJECTIVES	STRATEGIES	Key Performance Indicators
1. Improving industry interaction	Joint projects with Industry in all Departments	Explore possibilities for associating with Info Park Cherthala and Info Park Kochi, and neighbouring industries	
	Internships for final year and pre-final year students in Industry		Number of joint projects, Number of training programmes conducted for local industry, Number of student
	At least five Major and Mini Projects will be carried out in collaboration with industry		projects in association with locl industry, Number of talks delivered by Experts from Industry
	Special training programs in relevant areas shall be conducted for the benefit of local industry		

	Invited talks by experts from Industry		
	Industrial visits for all final year and pre- final year students		
2. Improving interaction with Reputed	Invited talks by Experts from Academia	Explore possibilities for associating with IITs, IISc etc for mentoring CE Cherthala	Number of talks conducted
Academic Institutions	Joint Research with reputed Academic Institutions	iso de la menering de diletendia	Number of joint research publications
3. Alumni for leveraging their contributions to their Alma Mater	Conduct Alumni meet every December	Utilize social media to connect with Alumni and activate the Alumni Chapter	Alumni meet conducted every year

Invite Distinguished Alumni to deliver lectures		Number of talks conducted by distinguished Alumni
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## 6.1.6 Governance

GOALS	OBJECTIVES	STRATEGIES	Key Performance Indicators
1. Achieve Autonomy	Achieve Managerial, Financial, Academic and Administrative Autonomy in two years	Delegate Additional Financial powers to the Principal and Head of Departments. Train all senior faculty in Institutional Governance by deputing to Management Capacity Development Programs at IIMs and other reputed Institutions	Obtain Autonomous status. Obtain 12B and 2F status of UGC
		All eligible Programmes to be accredited.	Obtain Accredited Status from NBA

Considering all the above inputs along with the SWOT analysis the goals and objectives – both short term and long term are developed.

### 6.2.1 LONG TERM GOAL

- Become a contributing centre of excellence in the field of Signal Processing
- Cater to the needs of the society in the areas of our expertise.
- Run UG and PG programs in the areas relevant to the times.

By 2024, the institution will be in a position to achieve the above Goals.

# 6.2.2 SHORT TERM OBJECTIVES FOR THE NEXT THREE YEARS, I.E., 2014-2017

- To have in place processes for monitoring the quality of teaching and learning, and within institutions for improving that quality with appropriate student involvement
- Utilizing the available expertise, new PG programs will be started in the fields of

Power Systems

Manufacturing Management

- Acquiring basic facilities for starting UG programs in Mechanical engineering
- Up-gradation of existing Labs
- Setting up of new labs

Electrical Machines Lab

Power Electronics Lab

Advanced Electrical Engineering Lab

Electrical PG Lab

Advanced Computing Centre

Project Lab

Advanced Communication lab

Advanced Signal Processing lab

### Advanced Computing Lab

 Promote research among UG & PG students by providing financial aid for Paper presentation and live projects.

Industrial visits

Project support

Include students in funded projects.

- Enhancing the facilities of UG lab to undertake research oriented projects.
- Furnishing the new Academic block Furnishing the labs, class rooms and faculty rooms
- •Training faculty in pedagogical methods, research methodology, and subject knowledge up-gradation and management capacity development.
- Promotion of open source software to the maximum possible extent, to encourage students to incorporate their own contributions without inhibitions.
- Deputing more number of faculty for Masters / Doctoral programmes/Post Doctoral Programmes
- Promoting Publication & patents
- Developing learning resources
- Obtaining ISO Certification and NBA accreditation
- Setting up of language lab
- Conducting remedial programs for weaker students to improve results.
- •Promotion of research among UG & PG students and enhancing the facilities of

UG lab to undertake research oriented projects.

## 6.2.3 SHORT TERM OBJECTIVES AFTER 2017

- Revenue generation for the sustainability of established PG and Research

  Labs by
  - # Encouraging Faculty to undertake Funded Projects
  - # Encouraging faculty to undertake consultancy work
  - # Conducting training programmes for other institutions
- Extending the facilities acquired at nominal rates (rental) to industry/society.

- Empowerment of other institutions in the similar areas of technical Excellence.
- Emerge as a nodal institution to co-ordinate academic activities in the cluster institutions
- Produce patents and publications in the areas of excellence.
- Create environment for the students to become entrepreneurs
- Establish an entrepreneurship development cell acting as a launch pad for various start ups

# 6.3 CHALLENGES IN IMPLEMENTING THE STRATEGIC PLAN

- Shortage of faculty
- Time consuming approval process of University, AICTE and NBA
- Slow response of industry for enhancing interaction
- Disturbance in academic schedule due to frequent faculty transfers among IHRD institutions
- Time consuming process of appointment of faculty

### **6.4 SUMMARY**

The strategic plan developed here is not a fixed plan. It was developed following a brain storming session in which representatives of all the stake holders participated. The plan will be suitably updated to take into account the changes that might occur in the environment, through short term and long term adaptation.

## 7. GOVERNANCE PLAN

## 7.1 GOVERNANCE DURING TEQIP PHASE

This phase which extends to the end of TEQIP project is the most crucial in terms of the development of a successful governance plan in the post TEQIP phase. The governance plan is conceptualized towards achieving Administrative, Managerial, financial and Academic Autonomy after the completion of the TEQIP-II project at C E Cherthala.

The institution enjoys substantial financial and administrative autonomy, but lacks managerial and academic autonomy. TEQIP phase envisages granting all these autonomies. At the end of TEQIP phase, it is expected that institution will be able to rationalize the fee structure, will receive *Block grant* for recurring expenditure, on a generally agreed formula based on the institutional parameters such as number of students, faculty and staff, infrastructural facilities etc. During this phase the governance of the institution will be done various committees formed for the institutional development will oversee the transition.

The following Committees formed for the implementation of the TEQIP project will guide the transition to an autonomous Institute.

Sl.	Heads & Nodal	Name & Designation of	Roles &
No	Officers	faculty in position	Responsibilities
1	Head	Principal Dr. P Suresh Kumar	Overall Implementation under the guidance of BOG. Will be the chief executive officer
2	Coordinator	Dr. Vinu Thomas Associate Professor	Overall Monitoring, Monitoring of Performance
3	Nodal Officer (Procurement)	Prof. Manilal D L Associate Professor	Institutional Procurement plan Procurement Arrangements

			Procurement audit
4	Nodal Officer ( Finance)	Prof. Pradeep M Associate Professor	Financial Plan Fund Allocation Finance Audit
5	Nodal Officer (Academic)	Dr. Jobymol Jacob Associate Professor	Academic Plan Implementation of institutional reforms
6	Nodal Officer (Equity Assurance)	Prof. Sarakutty K J Associate Professor	Equality for gender and cast, equal opportunities to faculty, staff, students and departments
7	Nodal Officer (Monitoring & Evaluation)	Mr. Irshad Ali T K Assistant Professor	Monitoring of Targets for deliverables as per development plan, Performance Audit
8	Nodal Officer (Civil works)	Prof. Priyakumar T N Associate Professor	Monitoring of Civil works

## **SUB-COMMITTEES**

The following sub-committees are formed under the respective nodal officers for the effective implementation of the development plan.

Sl. No	Committee	Responsibilities
1	Academic Committee Academic Plan, Implementation of Institutional reforms etc	
2	Finance Committee	Financial Plan, Fund allocation, Audit etc.
3	Purchase Committee	To make purchase of goods, works and services as per Procurement guidelines
4	Civil Works	Prepare, plan and coordinate Civil Works

	Committee	
5	Technical Evaluation Committee	To evaluate the procurement proposals technically and commercially
	Monitoring &	Commercially
6	Evaluation committee	Monitoring of Targets for deliverables
7	Library Committee  Plan for digital library, books & LR's, Journals, software needed etc.	
	Research &	Promotion of research and consultancy, giving R & D
7	Development	guidance, planning R & D projects and UG/PG sponsored
	Committee	project
	Faculty & Staff	Training Plan based on TNA, Short Term, Long Term
8	Development	Trainings, Seminars, Workshop etc.
	Committee	
9	Continuing Education	Plan and conduct CEP programmes as per needs.
	Programmes	Conducting skill development programmes for society
	Committee	
10	Committee for Weaker	Identify weaker students,
	Students	conduct bridge courses, etc as per PIP
	Career Advancement Monitoring Committee	Planning & Implementing Career advancement
11		programmes
		Conduct of Finishing schools
	Industry-Institute Interaction Committee	Arranging Lectures by industrial experts
		Collaborative projects, Field studies
		Tutoring by Industry experts for Campus
12		Faculty visits to industry
12		Memoranda of Understanding with industries
		Instituting Scholarships /fellowships and Awards by
		industries for students and
		faculty
13		Equality for gender and cast
	Equity Assurance	Equal opportunities to staff, faculty, Departments and
	Committee	students
		Equal opportunities to staff, faculty, Departments and
		students

## 7.2 GOVERNANCE IN POST TEQIP PHASE

It is assumed that by the end of the project, the institution will be autonomous in all aspects as required. Governance plays a major role in achieving the strategies defined by the mission of the institution. Changes in the organizational structure will help in improving work culture, decision making and the overall performance of the institute. The institution enjoys substantial autonomy in managerial, administrative and financial areas at present, as the administration is not done directly by the State Government. All internal revenue generated in terms of tuition fee, consultancy etc can be retained in the institution. Almost all the managerial and administrative matters are done at the institutional level except faculty and staff recruitment. Academic autonomy is aimed to be achieved by the end of the project. Considering the above, the institutional activities will be streamlined by introducing the following units.

#### 7.2.1 PRINCIPAL

The Principal will be the chief executive of the institution, responsible for advice to the governing body in relation to strategic direction and is accountable to the governing body for the effective management of the institution. The governance functions and of BOG and the executive responsibilities of the principal will be clearly demarcated.

#### 7.2.2 CONTROLLER OF EXAMINATION

This office will be responsible for conducting the examination including preparing the question papers, valuation publishing the grades. The office will be responsible for introducing modern automation tools to reduce administrative work. The office has to periodically review the evaluation process and suggest modifications in tune with emerging trends such as

- Peer evaluation of assignments
- > online submission of assignments
- ➤ Automated quizzes

This office will not be confined to just conducting the written examination, but will also devise innovative methods for student evaluation.

## 7.2.3 DEAN (ACADEMIC)

The office of the Dean is the most important in the context of Academic Autonomy. The office of the Dean will be responsible for all academic matters, including curriculum revision, faculty training etc. Dean will also be responsible for innovating instruction delivery, equity assurance etc.

#### 7.2.4 ACADEMIC COUNCIL

An academic council will be formed with representatives from all disciplines, giving special emphasis on experts from industries. The body will be responsible for the following

- 1. Revising the curriculum
- 2. Credit transfer
- 3. Introducing new courses based on the needs of the society as well as industry

# 7.2.5 REGISTRAR (ADMINISTRATION, PLANNING & FINANCE)

Registrar will be responsible for most of the administrative matters.

In addition to the routine administration the following functions will be entrusted with the registrar

1. Ensuring the block grant for the institution based on an acceptable formula

- 2. Formulate the budget
- 3. Establish incentives for the faculty and staff for performance
- 4. Rationalize the fee structure
- 5. Creating and attracting endowments
- 6. Interact with funding agencies, including UGC, AICTE, CSIR to attract projects for the institution

#### 7.2.6 CONFLICT RESOLUTION AND REDRESSAL

A committee for conflict resolution and redressal will be instituted with the following functions.

- 1. Resolve the conflicts among various functional unit that may arise due the introduction of new governance structure
- 2. Redress the grievances of faculty, staff and students
- 3. Resolve the differences of opinions among the stakeholders

#### 7.2.7 INDUSTRY INSTITUTE LINKAGE

The unit will be having responsibilities including

- 1. Student internship
- 2. Establishing consultancy centre
- 3. Establishing Incubation and innovation centre
- 4. starting tailor made programmes for industrial personals
- 5. Skill development centre