

The Annual Quality Assurance Report (AQAR) of the IQAC 2011-2012

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. *(Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)*

Part - A

1. Details of the Institution

1.1	Name of the Institution	:	Rajagiri School of Engineering & Technology
1.2	Address Line 1	:	Rajagiri Valley
	Address Line 2	:	Kakkanad
	City/Town	:	Kochi
	State	:	Kerala
	Pin Code	:	682039
	Institution e-mail address	:	office@rajagiritech.ac.in
	Contact No's	:	0484 2427835, 2428238
	Name of the Head of the Institution	:	Dr. J. Isaac
	Tel. No. with STD Code	:	0484 2427160
	Mobile	:	98467 10815
	Name of the IQAC Coordinator	:	Dr. Vinod Kumar P.B.
	Mobile	:	98957 75409

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IQAC e-mail address : IQAC@rajagiritech.ac.in

NAAC Track ID : **08030**

1.4 Website address : **www.rajagiritech.ac.in**

Web-link of the AQAR :

http://www.rajagiritech.ac.in/home/naac/2011_12.doc

1.5 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	B	2.79	2009	5 years

1.6 Date of Establishment of IQAC : **07/10/2008**

1.7 AQAR for the year (*for example 2010-11*) : **2011-12**

1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC (*for example AQAR 2010-11 submitted to NAAC on 12-10-2011*)

i. AQAR _____ (DD/MM/YYYY)

ii. AQAR _____ (DD/MM/YYYY)

iii. AQAR _____ (DD/MM/YYYY)

iv. AQAR _____ (DD/MM/YYYY)

1.9 Institutional Status

University

State

Central

Deemed

Private

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Affiliated College Yes No

Constituent College Yes No

Autonomous college of UGC Yes No

Regulatory Agency approved Institution Yes No
(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education Men Women
Urban Rural Tribal

Financial Status Grant-in-aid UGC 2(f) UGC 12B
Grant-in-aid + Self Financing Totally Self-financing

1.10 Type of Faculty/Programme

 Arts Science Commerce Law PEI (Phys Edu)

 TEI (Edu) Engineering Health Science

 Management Others (Specify)

1.11 Name of the Affiliating University (*for the Colleges*): **Mahatma Gandhi**

**University, Kottayam,
Kerala**

1.12 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT /ICMR etc

Autonomy by State/Central Govt. / University : **NO**

University with Potential for Excellence : **NO**

UGC-CPE : **NO**

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DST Star Scheme <input type="checkbox"/>	: NO	UGC-CE <input type="checkbox"/>	: NO
UGC-Special Assistance Programme	: NO	DST-FIST <input type="checkbox"/>	: NO
UGC-Innovative PG programmes <input type="checkbox"/>	: NO	Any other (<i>Specify</i>) <input type="checkbox"/>	
UGC-COP Programmes <input type="checkbox"/>	: NO		

2. IQAC Composition and Activities

2.1 No. of Teachers	:9
2.2 No. of Administrative/Technical staff	:6
2.3 No. of students	:0
2.4 No. of Management representatives	:0
2.5 No. of Alumni	:0
2.6 No. of any other stakeholder and community representatives	:0
2.7 No. of Employers/ Industrialists	:0
2.8 No. of other External Experts	:0
2.9 Total No. of members	:15
2.10 No. of IQAC meetings held	:2
2.11 No. of meetings with various stakeholders: No.	:2
Faculty	:1
Non-Teaching Staff	:1
Alumni	:0
Others	:0
2.12 Has IQAC received any funding from UGC during the year? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
If yes, mention the amount	

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos. : 0 International : 0 National : 0
State : 0 Institution Level : 0

(ii) Themes

2.14 Significant Activities and contributions made by IQAC

- IQAC reviewed the academic performance of all departments and suggested steps to improve overall teaching learning.
- The IQAC chalks out an academic plan in the beginning of the semester which helps the faculty and students in making the teaching- learning process more effective.
- The IQAC monitors the activities throughout the year, makes suggestions and incorporates the remedial measures
- Interaction with Heads and faculty members of each and every department for maintaining and sustaining quality education as directed by IQAC

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year *

Plan of Action	Achievements
• Form study groups of students for improving the learning skills.	Achieved through mentoring process
• Faculty should identify topics of social relevance for student projects	Faculty members are motivated to identify the social relevant projects through external lectures
• Insist on each M.Tech Student to	More no of papers were published

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produce at least a conference paper and a journal paper	
<ul style="list-style-type: none"> • More Industry Institute interaction to strengthen and motivate the faculty 	Lectures from Industry experts are organized
<ul style="list-style-type: none"> • For new courses in revised syllabus, arrange workshops for faculty 	Courses relevant to the new topics are organized
<ul style="list-style-type: none"> • Continue the Professional Association activities 	Activities are regularly organized by the all the associations
<ul style="list-style-type: none"> • Prepare teachers and students lab manual 	Teachers manual and students manuals are created for the new courses
<ul style="list-style-type: none"> • Continue Organizing conferences/Workshops/Seminars 	One international conference and several workshops and FDPs were conducted during the academic year
<ul style="list-style-type: none"> • Motivate Project/ Consultancy work 	Project plans have been submitted for the approval
<ul style="list-style-type: none"> • Continue conducting Short term Courses 	Short term courses are conducted regularly

* Attach the Academic Calendar of the year as Annexure.

2.15 Whether the AQAR was placed in statutory body Yes No
 Management Syndicate Any other body(Academic Council)

Provide the details of the action taken

- After careful investigation of AQAR, the IQAC advised to rectify all the shortcomings in the forthcoming academic year.

Part -B

Criteria-I

1. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD				
PG	6	0	6	0
UG	5	1	6	0
PG Diploma				
Advanced Diploma				
Diploma				
Certificate				
Others				
Total	12	1	12	0

1.2 (i) Flexibility of the Curriculum: **Core/Elective option/Short term courses**

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	12
Trimester	
Annual	

1.2 Feedback from stakeholders*

Alumni ✓ Parents ✓ Employers ✓ Students ✓

(On all aspects)

Mode of feedback : Online ✓ Manual ✓ Co-operating schools (for PEI)

**Please provide an analysis of the feedback in the Annexure*

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

NO

1.5 Any new Department/Centre introduced during the year. If yes, give details.

Mechanical Engineering

Criterion - II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Asst. Professors	Associate Professors	Professors	Others	Total
111	5	20	18	154

2.2 No. of permanent faculty with Ph.D.

No:
8

2.3 No: of Faculty Positions Recruited (R) and Vacant (V) during the year.

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
111	-	5	-	20	-	18	-	154	-

2.4 No. of Guest and Visiting faculty and Temporary faculty

Guest	Visiting	Temporary
3	0	0

2.5 Faculty participation in conferences and symposia

No: of faculty	International level	National level	State level
Attended	44	21	1
Presented papers	10	3	4
Resource persons	1	3	1

2.6 Innovative processes adopted by the institution in Teaching and Learning

- Bridge Courses – Training on software packages like C, Matlab, PIC etc. for students. Usually done during the beginning of the semester.
- Student Enrichment Programmes (SEP) – An hour per week is allocated for SEP activities like talk by external experts from academia and industry.

2.7 Total no: of actual teaching days during this academic year

109

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, and Online Multiple Choice Questions)

Nil

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

Curriculum Restructuring	Revision	Syllabus Development
6	5	4

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2.10 Average percentage of attendance of students

Attendance %
87

2.11 Course/Programme wise distribution of pass percentage:

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
B.Tech in CSE	124	45	58	Nil	NA	83.06
B.Tech in ECE	119	57	43	Nil	NA	89
B.Tech in EEE	60	45	40	Nil	NA	85
B.Tech in IT	60	48	22	Nil	NA	70
B.Tech in AE	58	12	23	Nil	NA	60.34

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes :

- The Evaluation report for the semester is given to the IQAC.
- IQAC evaluates the report and suggest improvements by discussing with the faculty.

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Summer / Winter schools, Workshops, etc.	91

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2.14 Details of Administrative and Technical staff.

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the year	Number of positions filled temporarily
Technical Staff	28	0	1	6
Administrative Staff	33	0	1	0

Criterion - III

3. Research, Consultancy and Extension

3.1. Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number		1	1	
Outlay in Rs. Lakhs		10,44,000	10,44,000	

3.2. Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number		1		
Outlay in Rs. Lakhs		4,00,000		

3.3. Details on research publications (Specify number)

	International	National	Others
Peer Review Journals	3		
Non-Peer Review Journals			

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e-Journals	17		
Conference proceedings	33	20	

3.4. Details on Impact factor of publications:

Range	0.356-2.6
Average	1.71
h-index	
Nos. in SCOPUS	3

3.5. Research funds sanctioned and received from various funding agencies, industry and other organizations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	2011-2014	DST	10,44,000	10,44,000
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College				
Students research projects <i>(other than compulsory by the University)</i>				
Any other(Specify)				
Total			10,44,000	10,44,000

3.6. No. of books published

With ISBN No.	1
Without ISBN No.	
Chapters in Edited Books	

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3.7. Whether received funds from

	Count	Amount
UGC-SAP		
CAS		
DST-FIST	1	10,44,000
DPE		
DBT Scheme/funds		

3.8. Revenue generated through consultancy

- Project Management Consultancy for a Banking Project by Prof K.S. Mathew for Rs.11,70,246/

3.9. No. of conferences organized by the department

Level	International	National	State	University	College
Number	1				
Sponsoring agencies	Springer	The Institution of Engineers (India)	Kerala State Council for Science, Technology and Environment (KSCSTE), Computer Society of India (CSI)- Div IV & Cochin Chapter, Project Management Institute (PMI), Computer Society of India (CSI)- Div IV & Cochin Chapter(IT)	IGNOU	

3.10. No. of faculty served as experts, chairpersons or resource persons

- 5

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3.11. No. of collaborations

International	
National	
Any other	

3.12. Total budget for research for current year in lakhs :

From Funding agency	10,44,000
From Management of University/College	7,11,299
Total	17,55,299

3.13. No. of patents received this year

Type of Patent		Number
National	Applied	
	Granted	
International	Applied	
	Granted	
Commercialized	Applied	
	Granted	

3.14. No. of research awards/ recognitions received by faculty and research fellows

Total	International	National	State	University	Dist	College
1	1					

3.15. No. of faculty from the department

Who are Ph.D. guides	1
Students registered under them	0

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3.16. No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF	
SRF	
Project Fellows	
Any other	

3.17. Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

- Student Project Exhibition 2011 – was held in the RSET campus on July 19 and 20, 2011.(EC)
- International Workshop on Applications of Signal Processing (**I-WASP**) in July 22-24 **2011** (EC)
- International Workshop on Embedded Computing & Communication Systems (I-WECC) on December 22- 23 2011(EC)
- One week social service program for the S3 students (2010 Admission) – Survey in Ambalamugal during June 2011. (EEE)
- RRCC conducts **Year Round Poster Competition** for first year B. Tech students. The students are grouped into the different research groups. They prepare and present a poster on some topic in that area.
- The institution has successfully organized an international conference International Conference on Advances in Computing & Communications (ICACC)

Criterion - IV

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	28.73 acres	Nil	Management	28.73 acres
Class rooms	32 (2701.33 sq m)	2 (133.8 sq m)		34 (2835.13 sq m)
Laboratories	28 (3057.56 sq m)	Nil		28(3057.56 sq m)
Seminar Halls	3 (550.42 sq m)	Nil		3(550.42 sq m)
No. of important equipments purchased (> 1-0 lakh) during the current year.	10			10
Value of the equipment purchased during the year (Rs. in Lakhs)	5008218/-			5008218/-

4.2 Computerization of administration and library

We have internal software called RSMS (Rajagiri Student Management System) for the day to day administration and Library automation is done using the software Libsoft.

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4.3 Library services(1st April 2011 – 31st March 2012):

	Existing		Newly added (2013-14)		Total	
	No.	Value	No.	Value	No.	Value
Text Books (2001 - 31 st March 2013)	19739	6083533.3	660	240614.9	20399	6324148.2
Reference Books (2001 - 31 st March 2013)	2509	2241820.7	321	284242.1	2830	2526062.8
e-Books (2011-12)			McGraw- Hill (363 E- Books)	105342	363	105342
Journals (2009-12)	77	237373	80	180168	157	417541
e-Journals	E- Journal Package 1. IEEE/IE T - IEL(241 journals)	749790	E-Journal Packages 1.IEEE/IET - IEL (241journal s) 2. IEEE ASPP (134 Journals) 3. Springer (134 Journals) 4. Elsevier Science Direct (275 Journals) 5. ASME (26 Journals) 6. JGATE 7. ASTM	1000156	7 E- Journal Package s	1749946
Digital Database	NPTEL Video Lectures , Institutional Repository					
CD & Video(2009- 12)	296		280		576	

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Others (specify) - Back Volumes	
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4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	610 desktops + 97 laptops	10	Reliance-6 Mbps	1	1	01	06	Entire college is Wi-Fi enabled and all computer labs have Internet access.
Added	13 desktop	Nil	Reliance-6 Mbps	Nil	Nil	Nil	Nil	
Total	623 desktop + 97 laptops	10	12 Mbps	1	1	01	06	

4.5 Computer, Internet access, training to teachers and students and any other programme for technology up gradation (Networking, e-Governance etc.)

COMPUTER AND INTERNET ACCESS
<ul style="list-style-type: none"> • Faculty members are provided with Laptops on seniority basis. • All students have separate login accounts to store their data in the college server. • Separate accounts are given to all the staff members to save their data and they may use internet and intranet any time free of cost. • All the staff rooms are equipped with computer and printer with internet access. • Entire campus is Wi-Fi enabled and all computer labs have Internet access. All the staff has access it any time.

- The Wi-Fi facility is available in the college hostels also.
- The institution has a total of 12 Mbps line for internet.

TRAINING TO TEACHERS AND STUDENTS

- Workshop for syllabus revision – Oct 21, 2011.
- 14-20 December 2011 Linux kernel programming.
- 6-10 June 2011 PC Hardware and Networking.
- International conference on Advances in Computing and Communication (ACC-2011) at RSET during 22-24 July 2011
- International workshop on Embedded Computing and Communication Systems(IWECC) at RSET from DEC 22 TO 23 ,2011
- International Symposium on Electronic System Design (ISED) 2011 at RSET from Dec 19-21,2011
- 5-day (10-hour) course on Total Quality Management at RSET - 14-Dec-2011, 16-Dec-2011, 17-Dec-2011, 21-Dec-2011, 22-Dec-2011 - Prof. K. S. Mathew (DCS)
- Workshop on 'Role of Intellectual Property Rights in the Knowledge Era', STIC, CUSAT, 12 October 2011
- FDP on 'Applications in Mathematics' at RSET, 3-15 December 2011.
- 10-hr. FDP on 'Wireless Communication' by Prof. Karthikeyan Chittayil, ECE Dept, RSET, 2011.
- Three day training on 'Innovate ARM 926 kits' at RSET from Feb17-19 by Innovate Software Solutions Pvt. Ltd, Bangalore.
- Fractals Application, Semiconductor Device Technology & Modeling, Semiconductor Devices FDP`s at RSET.
- FDP on Wavelets & its Applications by Prof. Narayana Murthy conducted by RSET Nov-Dec 2011
- Space Time wireless Communication, Wavelets & its applications,

FDP's at RSET during Nov-Dec 2011.

- Two weeks workshop on ADWCT at NITC in June 2011.
- ISTE approved short term training programme on Embedded Systems & VLSI with Practical Applications organized by Department of Electronics and Communication Engineering, Mar Baselios College of Engineering and Technology, Thiruvananthapuram during the period November 21st to 25th, 2011.
- International Workshop on "Embedded Computing and Communication systems", Dec 22, 2011 to Dec 23, 2011.
- International workshop on Application of signal processing (I-WASP-2011) at RSET during 22-24 July 2011
- A Session on "Cognitive radio opportunities and Challenges" in the FDP on "System level Modeling, Design and Analysis: A Practical Approach" at CUSAT, kochi, during 6-17 June, 2011.
- One day training on 'ARM9 board' for faculty members at RSET on June 15, 2011.
- Three Day Hands on Workshop on "OrCAD" at RSET ,Dec 2011 (RA and RRA)
- Introduction to MATLAB, July - Dec 2011
- Course on PLC and Industrial Automation, Jan 17 - 20, 2012
- Course on PIC Microcontroller, March 2, 2012
- FDP on "Modern Trends in Industrial Automation" - April 23 - 27, 2012
- 2-week FDP on "Applications of Mathematics" by the Department of Mathematics held from 03-15/01/2012 at RSET.
- 1 week FDP on "Dynamic Programming" by Dr. Abraham Thomas, DEC, RSET, held from 02-06/01/2012 at RSET.
- FDP on 'Mobile Application Development' at TCS, Cochin on Jan10,2012

4.6 Amount spent on maintenance in lakhs (1st April 2011 – 31st March 2012) :

i. ICT	19.84
ii. Campus Infrastructure and facilities	54.61
iii. Equipments	1.69
iv. Others	1.52
Total:	77.30

Criterion - V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about student support services

- The academic handbook published by the institution contains information about the institute, list of teaching and non teaching staff, details about undergraduate and post graduate programmes, fee structure, rules and regulation of the college and its library, the various committees, clubs and associations, NSS, the Alumni, PTA , internal assessment and the pattern of evaluation, the tutorial system, hostel facility, various endowment funds, placement training, mentoring etc.
- The institution facilitates students to avail Scholarship & other financial assistance from state government, central government and other authorities
- Each department publishes news letter every academic year.
- Enrichment of library by adding new books and journals.
- Grievance Re-dressal Cell is working for student support
- Fee concessions are provided to needy and meritorious students

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- Different student clubs are established for various extracurricular activities.

5.2 Efforts made by the institution for tracking the progression

- Conducts regular internal tests and meet parents to update them on students progress
- Remedial classes are arranged for slow learners
- Timely feedback on academic performances
- The academic council and the college council meets regularly to discuss various matters on the college particularly on student progression
- Organizing coaching classes for competitive exams
- Training classes for placement interviews.
- Result Analysis after the announcement of university exam results.
- Initiated steps to start a career guidance cell in the college.

5.3 a) Total number of students

UG	PG	Ph.D	Others
1722	90		

b) No. of students outside the state : **0**

c) No. of International students : **270**

Men		Women	
No	%	No	%
776	42.8	1036	57.2

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Last year						This Year					
General	SC	ST	OEC	Physically Challenged	Total	General	SC	ST	OEC	Physically Challenged	Total
1679	21	1	6		1707	1786	18	0	8		1812

Demand ratio : **5.95**

Dropout % : **1.10**

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

- College provides GATE coaching for the students. Resource persons are from college itself. Classes are handled from 4.30 to 6 pm.
- Placement training is given for final year students.

No. of students beneficiaries 8

5.5 No. of students qualified in these examinations

NET SET/SLET GATE 28 CAT 0

IAS/IPS etc State PSC UPSC Others

5.6 Details of student counseling and career guidance

- The student welfare officer (SWO) of the college provides counseling services to the students with personal and psycho-social problems.. As a rule of the thumb, academically backward students are usually referred to SWO to explore for stress factors in the students' life and to help them out in coping with the stress factors or resolving the stressful situations. Depending upon the nature of problems, the

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students are given different types of therapy like cognitive behavior therapy, assertive training, social skills training, supportive therapy etc. In order to establish rapport with the students, the SWO is allotted 4 – 5 sessions with the first year students every year.

No. of students benefitted

5.7 Details of campus placement

On Campus			Off Campus
No. of organizations visited	No. of students participated	No. of students placed	No. of students placed
21		350	

5.8 Details of gender sensitization programme

- Women's Grievance Redressal cell is constituted and talks are arranged on issues related to women welfare and empowerment. The services of this committee can be availed of by all female students as well as teaching and non teaching staff of the college

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level National level International level

No. of students participated in cultural events

State/ University level National level International level

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5.9.2 No. of medals/awards won by students in Sports, Games and other events

Sports:	State/ University level	<input type="text" value="1"/>	National level	<input type="text" value="0"/>	International level	<input type="text" value="0"/>
Cultural:	State/ University level	<input type="text" value="11"/>	National level	<input type="text" value="0"/>	International level	<input type="text" value="0"/>

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	61	Rs. 35,59,000
Financial support from government	132	Rs.19,40,846
Financial support from other sources	21	RS.20,16,000
Number of students who received International/National recognitions		

5.11 Students Organised/ initiatives

Fairs:	State/ University level	<input type="text" value="2"/>	National level	<input type="text" value="0"/>	International level	<input type="text" value="0"/>
Exhibition:	State/ University level	<input type="text" value="01"/>	National level	<input type="text" value="0"/>	International level	<input type="text" value="0"/>

5.12 No. of social initiatives undertaken by the students

➤ 9

5.13 Major grievances of students (if any) redressed: Nil.

Criterion – VI

6. Governance, Leadership and Management

6.1. State the Vision and Mission of the institution

VISION

To evolve into a premier technological and research institution, moulding eminent professionals with creative minds, innovative ideas and sound practical skill, and to shape a future where technology works for the enrichment of mankind.

MISSION

To impart state-of-the-art knowledge to individuals in various technological disciplines and to inculcate in them a high degree of social consciousness and human values, thereby enabling them to face the challenges of life with courage and conviction.

6.2. Does the institution has a management Information system

- YES, The institute has its own internally developed management information system (Rajagiri Student Management System (RSMS)) to manage general administration, academic activities of students & faculty members, various feedback reports and other RSET activities.

6.3. Quality improvement strategies adopted by the institution for each of the following:

6.3.1. Curriculum Development

- Rajagiri School of Engineering & Technology is affiliated to Mahatma Gandhi University, Kottayam, Kerala. The institute does not have any

flexibility of curriculum other than to follow the curriculum by the university to which it is affiliated. Faculty members from the college have contributed significantly to the development of curriculum during syllabus revision meetings conducted by M. G. University.

6.3.2. Teaching and Learning

- Semester plan is prepared and disseminated in RSMS in accordance with the academic calendar published by university prior to the start of a semester.
- Dissemination of curriculum book and course hand out in the website
- All faculty members prepare and update the course plan in RSMS regularly
- Mentoring: Each faculty is assigned with a group of student mentees. Periodic interaction with mentees is carried out for proper monitoring and guidance.
- Previous year question papers and study materials are available in digital library.
- Industrial Visits, Internships, Invited talks, Mini & Major projects.
- Students' performance is monitored through continuous assessments like class assignments, tutorials, mid semester & model examinations.

6.3.3. Examination and Evaluation

- Students must take all the examinations and tests conducted in the college. Absence from an examination/test will result in the forfeiture of their sessionals.
- There are two series examinations and one model examination in the first year; and a mid-semester examination and one model examination in each of the higher semesters. They form part of the Internal Assessment. Comprehensive examination is given to those

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students who had taken prior permission from the class teacher and HoD under valid medical grounds.

- The sessional marks breakup is as given below:

Breakups	Marks
Examinations	30 (marks will be allotted proportionately)
Assignments	10
Attendance	10
Maximum Marks	50

- For the first years', the first series examination will be conducted after completion of Modules 1 and 2, the second after completion of Modules 3 and 4, and the model examination will include the whole syllabus. For the higher semesters, the mid-semester examination shall be conducted after completion of Modules 1 to 3, and the model examination will include the whole syllabus.
- Late/non submission of assignments (which are part of the Internal Assessment) will result in reduction of sessionals.
- The progress report of the students will be sent to the parent/guardian after each test, and Open House will be conducted to facilitate parent-teacher interaction.
- Internal assessment marks of each theory subject should have a class average limited to 80%.
- Semester-end examinations are conducted by M. G. University.
- A candidate shall be declared to have passed in an individual subject of a semester examination if he/she secures not less than 40% marks for the subject in the university examination and not less than 50% of the total marks of the subject i.e. university examination marks and sessional marks in that subject put together.

6.3.4. Research and Development

- Research is considered as an integral part of the academic activities of the college.
- RSET management promotes research by granting incentives for publications in journals and conferences.
- Rajagiri Research and Consultancy Center (RRCC) coordinates the research activities of the various research groups within the institution in view of institutional and industrial projects and consultancy.

6.3.5. Library, ICT and physical infrastructure/instrumentation

- Rajagiri School of Engineering & Technology (RSET) has 28.73 acres of land with 26813 m² built up floor space.
- Academic ambience is enhanced by modern furniture, improved infrastructure & state of the art facilities in classrooms and laboratories.
- Daily academic activities start with prayer.
- Hostel accommodation for boys and girls.
- The college has transportation facilities to major parts of Ernakulam district.
- The college has canteen facility with seating capacity 300.
- College has telecom facility of BSNL with 11 lines are in use and every department, section, lab and all supporting service locations are having telephone access through intercom network of 138 lines.
- The College has its own security services to provide safety and 24 hours protection to the college, hostels and its belongings.
- RSET campus is networked and internet enabled through a 24/7, 12 Mbps leased line (6 Mbps X 2). Leased lines are connected through firewall. RSET also has 10 Mbps NMEICT connectivity on fiber.
- 12. RSET has a well-furnished central library with modern amenities with a total area of 937 m² with a seating capacity of 201.

Library functions from 8.00 a.m. to 8.30 p.m. on all working days and 9.30 a.m. to 4.00 p.m. on Sundays and holidays.

- RSET has a digital library equipped with institutional repositories (Faculty collection, Previous University question papers, etc.), video lectures and E-Journal packages like IEEE ASAP, Elsevier Science Direct, Springer, ASTM, ASME, J-Gate(JET), McGraw Hill (Access Engineering Library) – E-books.)

6.3.6. Human Resource Management

- Manpower planning is carried out every year in the month of May by considering the faculty workloads in each department. The HoDs prepare the department workload as per the guidelines for the coming academic year (both odd and even semesters) before one month of odd/even semester. The principal scrutinizes the department faculty work load and after necessary modifications, if required, gets it approved by the Director. A copy of consolidated faculty requirement, along with a copy of the approved department faculty work load, is submitted to the Principal by Heads of departments. Department faculty workload and faculty requirements will be presented to the Director for final approval.

6.3.7. Faculty & Staff recruitment

- Vacancies arising from time to time shall, as required, be mentioned in the leading newspapers as decided by the management. The advertisement specifies the minimum qualifications and other requirements for the post(s) subject to meeting the norms prescribed by AICTE or other competent authority

6.3.8. Industry Interaction/Collaboration

- Industry institute cell has been setup with the objective of promoting interaction between industry and institute.
- Cell organizes industrial visits, industrial training, seminars, workshops, technical talks etc.
- Coordinators: Prof. Dominic Mathew, Mr. Krishna Kumar K. P., Mr. Biju Abraham, Mr. Anoop Thomas, Mr. Vinu Thomas, Ms. Neeba E. A., Mr. Manoj G. Tharian.

6.3.9. Admission of students

B. Tech Programme

- Admission is strictly on the basis of merit.
 - Students having a pass in Higher Secondary Examination of the Board of Higher Secondary Education of Kerala or an examination recognized equivalent thereto with at least 50% mark in Mathematics separately, and 50% marks in Mathematics, Physics and Chemistry put together are eligible for admission.
3. He/She should be qualified in Kerala Engineering Entrance Examination for being eligible for admission in all seats, other than NRI quota.
4. 50% of the total seats in B. Tech courses are set apart for centralized allotment by the Commissioner for Entrance Examinations. 15% of seats within sanctioned intake is provided for NRI category and is given on the basis of marks obtained for PCM in 12th standard. Remaining seats are Management seats, allotted on merit by ranking applicants on the basis of marks obtained for PCM (12th standard only) and for Kerala Engineering Entrance Examination.
- Nationality: - Candidates must be Citizens of India.

M. Tech Programme

- Eligibility will be subject to the rules and regulations of Mahatma Gandhi University/AICTE
- The candidates shall be citizens of India.
- The candidates shall have acquired the prescribed qualification from an institution approved by the AICTE and Mahatma Gandhi University.
- Candidates should have a minimum of 60% aggregate marks in BE / B. Tech in the respective discipline.
- For SC/ST candidates a pass in the above mentioned degrees is sufficient.
- Candidates, who have passed AMIE/AMIETE examinations and satisfying the following conditions, are eligible for admission to institutions under Universities of Kerala.
 - * They must have valid GATE score.
 - * A minimum of 55% marks for Section B in AMIE/ AMIETE examination
 - * Minimum three years of professional experience in the field of specialization after acquiring the qualifying degree.
 - * Non GATE candidates have to appear for a test conducted by the Institution.
 - e. Candidates who have qualifying degree awarded from universities other than M. G. University shall submit Eligibility Certificate from Mahatma Gandhi University as well as Migration Certificate at the time of admission.
 - * Candidates who have appeared for final examination of any of the qualifying examinations may also apply provided he/she has passed all the subjects up to and including 7th semester. Selection of such candidates shall be subject to the production of qualifying degree at the time of admission.

Annual Quality Assurance Report

6.4. Welfare Schemes for

Teaching	Gratuity, Staff Welfare Fund
Non teaching	Staff Welfare Fund
Students	Merit Scholarships

6.5. Total Corpus fund generated

6.6. Whether annual financial audit has been done

Yes No

6.7. Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Agency
Academic	No	NA	Yes	IQAC
Administrative	No	NA		

6.8. Does the University/Autonomous College declare result within 30 days?

For UG Programmes Yes No

For PG Programmes Yes No

6.9. What efforts are made by the University/Autonomous College for Examination Reforms?

➤ NA

6.10. What efforts are made by the University to promote autonomy in the affiliated/constituent colleges

NA

6.11. Activities and support from the Alumni Association

Each department has a faculty advisor for coordinating alumni activities

Alumni association

- a. Arrange periodic meetings of alumni
- b. Ensure alumni registration
- c. Prepare alumni news letter
- d. Maintain records of alumni & the meets that take place
- e. Proposing annual budget

6.12. Activities and support from the Parent-Teacher Association

- PTA has an executive committee comprising the parents of students' branch wise and year wise and the representatives of the faculty including Director and the Principal
- Committee meets at least twice in a year to discuss all matters of interest.

6.13. Development programmes for support staff

- To improve the skill of the support staff, the college deposes the members of the staff to undergo training and workshops organized by other institutions, universities and govt. organizations.
- In house training programmes are also arranged by various departments to cater the needs of the support staff.

6.14. Initiatives taken by the institution to make the campus eco-friendly

- Plenty of trees and plants are planted and properly maintained to make the campus eco friendly. Exclusively appointed gardeners take care of the lawn and the greenery of the campus.

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

- Rajagiri software development unit has been formed to fulfill all the software needs of RSET.
- The RSET website and associated framework for automating the Rajagiri Students Management System (RSMS), RSET Digital library, RSET payroll management system ,RSET online examination system ,Admission automation system and Exam automation system(PRAGATI) have been upgraded for smooth functioning of the institution.
- Institutional repository (GYAN) as intranet facility is accessible to students and faculty with additional features.
- Rajagiri Incubation Centre (RIC) provides RSET alumni and students with facilities that help them design and develop the working models of their innovative ideas and concepts.
- Coaching classes are conducted for students for GATE examinations.
- College initiated the training programmes, workshops and guest lectures in various domains for students by industrial experts through Industrial Institute Interaction Cell (IIIC)

Annual Quality Assurance Report

- The placement cell organised different activities for preparing students for recruitment by providing trainings.
- Remedial classes are conducted for weak students for improving their academic performance.
- RSET language lab initiated activities to help students to overcome language deficiencies and improve their command over language.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year.

Plan	Action
To encourage faculty to publish a conference/journal paper	More no of papers were published
More Industry Institute interaction to strengthen and motivate the faculty and to inculcate Entrepreneurial culture in students.	Lectures from Industry experts are organized
Continue the Professional Association activities	Activities are regularly organized by the all the associations
Continue Organizing conferences/Workshops/Seminars	One international conference and several workshops and FDPs were conducted during the academic year
To get external funding from agencies like AICTE, DRDO	Project plans have been submitted for the approval
To conduct classes for competitive exams	Aptitude Class and GATE classes are conducted and improvement in no of students qualified for GATE exam

7.3 Give two Best Practices of the institution (*please see the format in the NAAC Self-study Manuals*)

Best Practice-1

- To encourage technical interaction with outside world and to enhance research potential in faculty members, consultancy were initiated.

Best Practice-2

- GYAN-The institutional repository was created with features for enhancing technical updates among faculty and students.

****Provide the details in annexure (annexure need to be numbered as i, ii,iii)***

7.4 Contribution to environmental awareness / protection.

Environmental friendly Campus

- Each block of the building and playgrounds are surrounded by large green lawns, and plants which maintain healthy and balanced environment.
- RSET TREE (Together Restoring Environment Effectively) Nature club organizes nature conservation activities, study trips, Quizzes, Bird watching trips etc.
- Cycle campaigning trip and trekking are the specialties.

NSS & Nature Club activities to support environmental awareness

- 5 days NSS programme in association with Rajagiri Outreach, Kalamassery.
 - Suchitwa Bodhana Yajnam –Always.
 - (Exhibition, inter school competitions, street play & padayatra)
- Students participate in quiz competitions sponsored by BPCL and ENCON club.

- Made green campus by planting more than 50 saplings every year

Energy Conservation

- The college has been conscious about the energy conservation for which it constituted Energy Conservation and ENCON club to promote energy conservation awareness among students and society.
- College also promotes procurement and installation of efficient electrical systems to save electricity.

Use of Renewable Energy

- The College has a tie-up with Renewable Energy Centre MITHRADHAM Chunangamveli, which promotes Solar Energy awareness among student community.
- A Bio-Gas plant is maintained at hostel and canteen to produce cooking gas from bio-degradable waste.
- A Solid-waste management unit is functional to segregate plastic, glasses, papers etc

Water harvesting

- A network of ponds is maintained in the campus to ensure continuous recharging of ground water table.

7.5 Whether environmental audit was conducted?

Yes No

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

- Faculty Retreat program was conducted at College-campus where brain storming session among faculty for SWOT Analysis was done during June 2012 for academic year 2011-12.

Annexure-i

Best practice -1

1. Title of the Practice: Initiation of consultancy work.

2. Goal:

- To encourage technical interaction with outside world and to enhance research potential in faculty members consultancy were initiated.

3. The Context

- To improve the confidence level of faculty and students in academic and research activities.
- To upgrade technology practised currently in industries.
- To imbibe the research culture among faculty and students

4. The Practice

- The technical requirement of the industry/organisation is collected and based on the technical support that could be provided from RSET faculty the consultancy proposals are framed and executed.

5. Evidence of Success

- Project management Consultancy, RSET offered to NeST group, CEPZ , Kakkannad for their Banking projects under the guidance of Prof. K.S Mathew, Dept of Computer Science and Engineering.Total fee of this counsultancy is 18 Lakhs per year, from 1st March 2011 to 29th Feb 2012.
- RSET Digital repository was created by Mr Binu.A,Asst. Professor, IT Department during the academic year 2011-12.

6. Problems Encountered and Resources Required:

- Inadequate number of faculty with Ph.D affected the number of consultancy proposals.

7. Notes (Optional): Nil

8. Contact Details:

Name of the faculty: Prof. K.S. Mathew, Mr.Binu.A

Name of the Institution: Rajagiri School of Engineering and Technology

City: Kochi

Pin Code: 682 039

Accredited Status: NAAC with B grade

Work Phone :+91 484 2427835, Fax:+91 484 2426241

Website: www.rajagiritech.ac.in , E-mail : office@ rajagiritech.ac.in

Annexure-ii

Best practice -2

1. Title of the Practice: GYAN-The institutional repository was created with features for enhancing technical updates among faculty and students.

2. Goal:

- To enhance the self learning ability of the students and to technically update them with current scenario in various engineering disciplines.
- To technically equip the faculty for enhancing their regular academic activities and research activities.

3. The Context

- As the faculty members are involved in various academic and research activities optimal time management is very essential. Easy access to technical information through GYAN helps them effectively to fulfill their academic activities.
- Teaching –learning process is enhanced through the different course materials available in GYAN.
- The previous year university/ internal examinations question papers are made available through GYAN which helps the students in improving their academic performance.

4. The Practice

The following features are provided in the institutional repository (GYAN) and can be accessed through intranet facility within the campus to faculty and students.

- RSET course materials, RSET-News letters
- IIT course materials
- NPTEL course materials, Video Lectures
- RRCC-Posters

- Virtual Campus
- RSET Wiki
- MIT course materials
- Digital library-OPAC
- Video library
- E-Journal package-IEEE, Springer, ACCESS, Elsevier, J-Gate, ASME, ASTM, ASCE

5. Evidence of Success

- Improvement in the teaching-learning process reflected in university results
- Enhanced performance of students in co-curricular activities

6. Problems Encountered and Resources Required:

- Advanced Computing facilities
- Collaboration with reputed academic institutes

7. Notes (Optional): Nil

8. Contact Details:

Name of the faculty: Mr. Binu.A

Name of the Institution: Rajagiri School of Engineering and Technology

City: Kochi

Pin Code: 682 039

Accredited Status: NAAC with B grade

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