Peer Review Evaluation Review of the Department of Chemistry

Qualitative Evaluation

Item	Item Description	Assessment by the evaluators	Remarks			
No.		(circle the one which is most				
		appropriate)				
A1	Infrastructure	Good / Satisfactory / Not				
		satisfactory				
A2	Finance	Good / Satisfactory / Not				
		satisfactory				
A3	Curriculum and Courses	Good / Satisfactory / Not				
	offered	satisfactory				
A4	Research Activities	Good / Satisfactory / Not				
		satisfactory				
A5	Motivational environments	Good / Satisfactory / Not				
	for academic works	satisfactory				
A6	Faculty Development	Good / Satisfactory / Not				
	Programme	satisfactory				
A7	Academic Collaboration	Good / Satisfactory / Not				
	(National / International)	satisfactory				
A8	Personality Development	Good / Satisfactory / Not	,			
	Programme for students	satisfactory	100			
A9	External stakeholder	Good / Satisfactory / Not				
	engagement	satisfactory				
A10	Participation in Institute's					
	Administration and other	satisfactory				
	Activities					

Good: 80-100; Satisfactory: 60-80; Not satisfactory: <60

(S. S. Krishnamurthy)

(J. Iqbal

Swapankumnahr

(S. K. Ghosh)

Quantitative Evaluation

Marks (out of 100) obtained against each major item (1-10) above is A_i , Weightage of each major item is W_i

Total marks out of 100 is $\sum_{i=1}^{10} W_i A_i$

 $(W_1 = 0.15, W_2 = 0.15, W_3 = 0.15, W_4 = 0.15, W_5 = 0.10, W_6 = 0.10, W_7 = 0.05, W_8 = 0.05, W_9 = 0.05, W_{10} = 0.05)$

Evaluation Matrix

	Total	a	b	С	d	e	f	g	h	i	J	k	1	TOTAL	WiAi
A1	100	25	25	22	22	-	-	-	-	-	-	-	-	94	14.1
A2	100	95	-	-	-	-	-	-	-	-	-	-	-	95	14.25
A3	100	40	14	13	30	-	-	-	-	_	-	-	-	97	14.55
A4	100	20	10	15	5	10	8	9	10	10	-	-	-	97	14.55
A ₅	100	10	5	5	10	10	9	5	5	19	5	10	5	98	9.8
A6	100	10	13	14	15	15	15	12	-	-	-	-	-	94	9.4
A7	100	0	0	20	15	20	-	-	-	-	-	-	-	55	2.75
A8	100	30	20	40	-	-	-	-	-	-	-	-	-	90	4.5
A9	100	25	30	15	20	-	-	-	-	-	-	-	-	90	4.5
A10	100	59	39											98	4.9
	100	•												$\sum_{i}^{10} W_i A_i$	93.3

(S. S. Krishnamurthy)

(J. Iqbal)

Scapenkamer Bhos.

(S. K. Ghosh)

SUMMARY of ASSESSMENT

Overall Qualitative Evaluation: Excellent

Overall Quantitative Evaluation: 93.3

Additional Comments (on the strengths and weaknesses of the program):

This department has made remarkable progress during the last decade in terms of research and teaching and is emerging as one of the leading chemistry departments in the country.

The research profile and course curriculum are comparable to international standards.

Teaching and Curriculum development – Undergraduate BTech course (CST) developed by the department of chemistry, IIT Guwahati, is considered as a novel approach in imparting fundamental and applied chemistry knowledge in an integrated way. It has inspired other institutes in the country to consider introduction of such

programmes in their curriculum.

Research and Publications – The total number of publications exceed 900 with total citations over 21000, with several publications in very high impact factor journals. The faculty has published on an average > 40 papers per faculty. As per a survey (2012-13) of the Royal Society of Chemistry, the department ranks twelfth in the country in terms of

publications in the top 20 Chemistry journals.

Student output – The department has produced more than a hundred highly trained and skilled PhD students and majority of them are employed in academia as well as in

industry.

Research Grants – The number of research projects in the Department exceeds 120 with a total budget of about 50 crore rupees.

The following may be considered for further improvement of the department.

Infrastructure: the research laboratory space should be doubled if the department is to remain internationally competitive.

Setting up of a **glass blowing facility** would greatly help the researchers in the department.

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The department has not utilized its full potential in reaching out to industry and addressing the problems of chemical and pharmaceutical industries. This is one area in which the department needs improvement. This will also help to raise additional resources.

Overall Recommendation:

The committee is of the opinion that the department of chemistry at IIT Guwahati has performed extraordinarily well in terms of research, teaching and human resource development in a short span of time. This reflects the collective efforts and dedication of the faculty, staff and students.

However, the department should augment its research in interdisciplinary programmes, especially in the areas of chemical biology, energy and materials. In addition, research in specific areas of chemistry such as organometallics, total synthesis, molecular medicine, may be initiated, and experimental physical chemistry may be strengthened.

(S. K. Ghosh)