CRITERION 5	FACULTY INFORMATION AND CONTRIBUTIONS	200

CAY 2017-2018

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date of Joining the Institution	Department	Specialization	Academic Research			Sponsored Research (Funded Research)	Consultancy and Product Development
	Degree (highest degree)	University	Year of Graduation						Research Paper Publication	Ph.D Guidance	Faculty Receiving Ph.D during the Assessment Years		
1. Prof Ashok Baruah	M.Tech	IIT B, Mumbai	1992	B.E student 1980					-	-	-	Removal of Arsenic from water under RPS Scheme of AICTE	-
2.Prof Runjun Das	M.S	Tennesse Knoxvile US	1991	B.E student 1981	Assoc. Prof.	19-11-1988	Chemical Engg	Chemical Engineering (Polymer Engineering)	-	-	-	-	-
3.Dr Bandana Chakraborty	Ph.D	IIT, Guwahati	2008	B.E student 1984	Assoc. Prof.	15-10-1992	Chemical Engg	Chemical Engineering (Membrane Separation)	9	3	-	-	-
4.Prof Tapan Jyoti Sarma	M.Tech	IITB, Mumbai	1997	B.E student 1985	Assoc. Prof.	02-05-1994	Chemical Engg	Chemical Engineering (Natural and Synthetic Polymers)	-	-	-	-	-
5.Dr. Kabita Chakraborty	PhD	IIT, Guwahati	2010	B.E student 1986	Assoc. Prof.	13-01-1995	Chemical Engg	Chemical Engineering (Membrane based Separation)	8	-	-	-	-

CAY 2017-2018

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date of Joining the Institution	Department	Specialization	Academic Research			Sponsored Research (Funded Research)	Consultancy and Product Development
	Degree (highest degree)	University	Year of Graduation						Research Paper Publication	Ph.D Guidance	Faculty Receiving Ph.D during the Assessment Years		
6.Dr. Ashim Kumar Basumatary	PhD	IIT, Guwahati	2015	08.01.2007	Asst. Prof	08-01-2007	Chemical Engg	Chemical Engineering (Ceramic Composite membrane based Separation)	10	-	-	-	-
7.Dr. Ujwala Hujuri	PhD	IIT Guwahati	2012	B.E student 1998	Asst. Prof	10-03-2011	Chemical Engg	Chemical Engineering (Plastics Engineering)	9				
8.Mr. Chiranjib Das	M.Tech	IIT Guwahati	2014	B.E student 2008	Asst. Prof Contract	01-08-2014	Chemical Engg	Chemical Engineering (Material science and technology)	1				
9. Ms. Dolly Talukdar	M. Tech	Tezpur University	2013	B.E student 2006	Asst. Prof Contract	01-05-2013	Chemical Engg	Chemical Science (Polymer Science & Technology)	-	-	-	-	-
10.Mr. Rabindra Kangsha Banik	M Tech	Tezpur University	2015	B.E student 2007	Asst. Prof Contract	01-08-2015	Chemical Engg	Energy Technology	-	-	-	-	-

CAY 2017-2018

11. Dr. Sanjay Jadav	Ph.D.	IIT Kharagpur	2018	Since 30 Dec. 2017	Asst. Prof under TEQIP-III	30-12-2017	Chemical Engg	Chemical Engineering (Rheology of Complex fluids)	6	-	-	-	-
12.Nivedita Shroti	M. Tech,	IIT Guwahati	2010	Since 4 Jan 2018	Asst. Prof under TEQIP-III	04-01-2018	Chemical Engg	Chemical Engineering (Fuel cell, catalyst development for electrochemical systems)	7	-	-	1 under IEDC, Indore	-

CAY 2016-2017

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date of Joining the Institution	Department	Specialization	Academic Research			Sponsored Research (Funded Research)	Consultancy and Product Development
	Degree (highest degree)	University	Year of Graduation						Research Paper Publication	Ph.D Guidance	Faculty Receiving Ph.D during the Assessment Years		
1. Prof Ashok Baruah	M.Tech	IIT B, Mumbai	1992	B.E student 1980	Assoc. Prof.	14-03-1988	Chemical Engg	(Chemical Engineering) Petroleum Engineering	-	-	-	Removal of Arsenic from water under RPS Scheme of AICTE	-
2.Prof Runjun Das	M.S	Tennesse Knoxvile US	1991	B.E student 1981	Assoc. Prof.	19-11-1988	Chemical Engg	Chemical Engineering (Polymer Engineering)	-	-	-	-	-
3.Dr Bandana Chakrabarty	Ph.D	IIT, Guwahati	2008	B.E student 1984	Assoc. Prof.	15-10-1992	Chemical Engg	Chemical Engineering (Membrane Separation)	9	3	-	-	-
4.Prof Tapan Jyoti Sarma	M.Tech	IITB, Mumbai	1997	B.E student 1985	Assoc. Prof.	02-05-1994	Chemical Engg	Chemical Engineering (Natural and Synthetic Polymers)	-	-	-	-	-
5.Dr. Kabita Chakrabarty	PhD	IIT, Guwahati	2010	B.E student 1986	Assoc. Prof.	13-01-1995	Chemical Engg	Chemical Engineering (Membrane based Separation)	8	-	-	-	-

CAY 2016-2017

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date of Joining the Institution	Department	Specialization	Academic Research			Sponsored Research (Funded Research)	Consultancy and Product Development
	Degree (highest degree)	University	Year of Graduation						Research Paper Publication	Ph.D Guidance	Faculty Receiving Ph.D during the Assessment Years		
6.Dr. Ashim Kumar Basumatary	PhD	IIT, Guwahati	2015	08.01.2007	Asst. Prof	08-01-2007	Chemical Engg	Chemical Engineering (Ceramic Composite membrane based Separation)	10	-	-	-	Conducted National conference and workshop
7.Dr. Ujwala Hujuri	PhD	IIT Guwahati	2012	B.E student 1998	Asst. Prof	10-03-2011	Chemical Engg	Chemical Engineering (Plastics Engineering)	9				
8.Mr. Chiranjib Das	M.Tech	IIT Guwahati	2014	B.E student 2008	Asst. Prof Contract	01-08-2014	Chemical Engg	Chemical Engineering (Material science and technology)	1				
9. Ms. Dolly Talukdar	M. Tech	Tezpur University	2013	B.E student 2006	Asst. Prof Contract	01-05-2013	Chemical Engg	Chemical Science (Polymer Science & Technology)	-	-	-	-	-
10.Mr. Rabindra Kangsha Banik	M Tech	Tezpur University	2015	B.E student 2007	Asst. Prof Contract	01-08-2015	Chemical Engg	Energy Technology	-	-	-	-	-

CAY 2015-2016

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date of Joining the Institution	Department	Specialization	Academic Research			Sponsored Research (Funded Research)	Consultancy and Product Development
	Degree (highest degree)	University	Year of Graduation						Research Paper Publication	Ph.D Guidance	Faculty Receiving Ph.D during the Assessment Years		
1. Prof Ashok Baruah	M.Tech	IIT B, Mumbai	1992	B.E student 1980	Assoc. Prof.	14-03-1988	Chemical Engg	(Chemical Engineering) Petroleum Engineering	-	-	-		
2.Prof Runjun Das	M.S	Tennesse Knoxvile US	1991	B.E student 1981	Assoc. Prof.	19-11-1988	Chemical Engg	Chemical Engineering (Polymer Engineering)	-	-	-	-	-
3.Dr Bandana Chakrabarty	Ph.D	IIT, Guwahati	2008	B.E student 1984	Assoc. Prof.	15-10-1992	Chemical Engg	Chemical Engineering (Membrane Separation)	9	3	-	-	-
4. Dr Arup Kr Misra	PhD	Guwahati University	2015	B.E student 1981	Assoc. Prof.		Chemical Engg						
5.Prof Tapan Jyoti Sarma	M.Tech	IITB, Mumbai	1997	B.E student 1985	Assoc. Prof.	02-05-1994	Chemical Engg	Chemical Engineering (Natural and Synthetic Polymers)	-	-	-	-	-
6.Dr. Kabita Chakrabarty	PhD	IIT, Guwahati	2010	B.E student 1986	Assoc. Prof.	13-01-1995	Chemical Engg	Chemical Engineering (Membrane based Separation)	8	-	-	-	-

CAY 2015-2016

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date of Joining the Institution	Department	Specialization	Academic Research			Sponsored Research (Funded Research)	Consultancy and Product Development
	Degree (highest degree)	University	Year of Graduation						Research Paper Publication	Ph.D Guidance	Faculty Receiving Ph.D during the Assessment Years		
7.Dr. Ashim Kumar Basumatary	PhD	IIT, Guwahati	2015	08.01.2007	Asst. Prof	08-01-2007	Chemical Engg	Chemical Engineering (Ceramic Composite membrane based Separation)	10	-	-	-	-
8.Dr. Ujwala Hujuri	PhD	IIT Guwahati	2012	B.E student 1998	Asst. Prof	10-03-2011	Chemical Engg	Chemical Engineering (Plastics Engineering)	9				
9.Mr. Chiranjib Das	M.Tech	IIT Guwahati	2014	B.E student 2008	Asst. Prof Contract	01-08-2014	Chemical Engg	Chemical Engineering (Material science and technology)	1				
10. Ms. Dolly Talukdar	M. Tech	Tezpur University	2013	B.E student 2006	Asst. Prof Contract	01-05-2013	Chemical Engg	Chemical Science (Polymer Science & Technology)	-	-	-	-	-
11.Mr. Rabindra Kangsha Banik	M Tech	Tezpur University	2015	B.E student 2007	Asst. Prof Contract	01-08-2015	Chemical Engg	Energy Technology	-	-	-	-	-

Student-Faculty Ratio (SFR) (20)

(To be calculated at Department Level)
No. of UG Programs in the Department (n): one No. of PG Programs in the Department (m): nil No. of Students in UG 2 nd Year= u1 = 66
No. of Students in UG 3 rd Year= u2 = 66
No. of Students in UG 4 th Year= u3 = 66
No. of Students in PG 1st Year= p1 = -
No. of Students in PG 2 nd Year= p2 = -

No. of Students = Sanctioned Intake + Actual admitted lateral entry students

(The above data to be provided considering all the UG and PG programs of the department)

S=Number of Students in the Department = UG1 + UG2 +.. +UGn + PG1 + PGn

F = Total Number of Faculty Members in the Department (excluding First Year faculty)
Student Teacher Ratio (STR) = S/F

Year	CAY	CAYm1	CAYm2
u1.1	66	66	66
u1.2	66	66	66
u1.3	66	66	66
UG1	198	198	198
PGm	-	-	-
Total No. of Students in	198	198	198
No. of Faculty in the	12	10	10
Student Faculty Ratio	SFR1=S1/F1=16.5	SFR2= S2/F2=19.8	SFR3= S3/F3=19.8
Average SFR	SFR=(16.5+19.8+19.8)/3=18.7		

Table B.5.1

Note: 75% should be Regular/full time faculty and the remaining shall be Contractual Faculty / Adjunct Faculty / Resource persons from industry as per AICTE norms and standards.

The contractual faculty will be considered for assessment only if a faculty is drawing a salary as prescribed by the concerned State Government for the contractual faculty in the respective cadre and who have taught over consecutive 4 semesters.

Marks to be given proportionately from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 20:1, and zero for average SFR higher than 20:1.

Faculty Cadre Proportion (25)

The reference Faculty cadre proportion is 1(F1):2 (F2):6 (F3)

F1: Number of Professors required = 1/9 × Number of Faculty required to comply with 15:1 Student-Faculty ratio based on number of students (N) as per 5.1

F2: Number of Associate Professors required = 2/9 × Number of Faculty required to comply with 15:1 Student-Faculty ratio based on number of students (N) as per 5.1

F3: Number of Assistant Professors required = 6/9 × Number of Faculty required to comply with 15:1 Student-Faculty ratio based on number of students (N) as per 5.1

Here,

Number of Faculty required to comply with 15:1 Student-Faculty ratio based on number of students (N) as per 5.1 = F = ~~,~~ Therefore

Year	**Professors**		**Associate Professors**		**Assistant Professors**	
	Required F1	**Available**	**Required F2**	**Available**	**Required F3**	**Available**
CAY (2017-18)	1	0	3	5	9	7
CAY*m*1 (2016-17)	1	0	3	5	9	5
CAY*m*2 (2015-16)	1	0	3	5	9	5
Average Numbers	RF1=1	AF1=0	RF2=3	AF2=5	RF3=9	AF3=5.67

Table B.5.2

F1= 1/9 × 13 =1.44 , F2= 2/9 × 13 =2.88 , F3= 6/9 × 13 =8.67

Cadre Ratio Marks $\frac{A\,1}{1}\ \frac{A\,2\ 0.6}{2}\ \frac{A\,3\ 0.4}{3}$

$$= \frac{5\ 0.6}{} \quad \frac{5.67\ 0.4}{}$$

$$= 15.65$$

Faculty Qualification (25)

FQ = 2.5 × [(10X + 4Y)/F)], where

X is number of regular Faculty with PhD

Y is number of regular Faculty with M Tech

F is number of regular Faculty required to comply with 1:15 Faculty-Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1).

Years	X	Y	F	FQ =2.5×[(10X + 4Y)/F)]
CAY (2017-18)	5	7	13	15
CAY*m*1(2016-17)	4	6	13	12.31
CAY*m*2(2015-16)	4	6	13	12.31
Average Assessment				13.21

Table B.5.3

Faculty Retention (25)

No. of regular faculty members in CAY*m*2 (2015-16) =10, CAY*m*1 (2016-17) = 10, CAY(2017-18) =12

Item	Marks
>= 90% of required Faculty members retained during the	25
>= 75% of required Faculty members retained during the	20
>= 60% of required Faculty members retained during the	15
>= 50% of required Faculty members retained during the	10
< 50% of required Faculty members retained during the	0

Description	2015-16	2016-17	2017-18	Average
No. of faculty retained	10	10	12	100
Total No. of faculty	10	10	12	
% Retention	100	100	100	

Table B.5.4

Innovation by the Faculty in Teaching and Learning (20)

Following are the innovative tools and method used by the Faculty in Teaching and Learning Process

1. Presentations: For certain subjects, at the end of the course, students use power point presentations and explain subject topics on their own which indicates whether they have understood the concepts.

2. Assignments: a. Term Project- Field level survey leading to a case study.

b. Visual Project- Conceptualization in making a short film on the subject matter given

Faculty as participants in Faculty development/training activities/STTPs (15)

- A Faculty scores maximum five points for participation
- Participation in 2 to 5 days Faculty development program: 3 points
- Participation > 5 days Faculty development program: 5 points

Faculty as participants in Faculty development/Training Activities/STTPs Academic Year: 2016-17					
Sr No.	**Faculty Name**	**Title of the Course**	**Duration of the course with Month and Date**	**Whether approved by AICTE**	**Name of the Institute & Department where the Course was conducted**
1.	Prof Ashok Barua	Sustainable Solid Waste Management practices	2 days, 31st Aug to 1st Sept, 2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
2	Prof Runjun Das	1.Pedagogy	2 days, 5-6, May/2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
		2.Sustainable Solid Waste Management practices	2 Days, 31st Aug to 1st Sept, 2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
3	Dr Bandana Chakrabarty	1.Pedagogy	2 days, 5-6, May/2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
		2.Sustainable Solid Waste Management practices	2 Days, 31st Aug to 1st Sept, 2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
4	Prof Tapan Jyoti Sarma	1.Pedagogy	2 days, 5-6, May/2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
		2.Sustainable Solid Waste Management practices	2 Days, 31st Aug to 1st Sept,	AICTE-NEQIP	Assam Engineering College, Deptt, of

			2017		Chemical Engineering
5	Dr Kabita Chakrabarty	1.Pedagogy	2 days, 5-6, May/2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
		2.Sustainable Solid Waste Management practices	2 Days, 31st Aug to 1st Sept, 2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
6	Dr Ashim Kumar Basumatary	Sustainable Solid Waste Management practices	2 Days, 31st Aug to 1st Sept, 2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
7	Dr Ujwala Hujuri	1. Pedagogy	2Days, 5- 6 May/2017.	AICTE-NEQIP	Assam Engineering College, Dept of Chemical Engineering
		2.TEQIP-III orientation workshop on start-up and innovation	2Days, 22-23 Dec/2017	TEQIP	Centre for Educational Technology, IITG, Guwahati
8	Mr Rabindra K Banik	1.Pedagogy	2 days, 5-6, May/2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
		2.Sustainable Solid Waste Management practices	2 Days, 31st Aug to 1st Sept, 2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
9	Mr Chiranjib Das	1.Pedagogy	2 days, 5-6, May/2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
		2.Sustainable Solid Waste Management practices	2 Days, 31st Aug to 1st Sept, 2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
10	Ms Dolly Talukadar	1.Pedagogy	2 days, 5-6, May/2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
		2.Sustainable Solid Waste Management practices	2 Days, 31st Aug to 1st Sept, 2017	AICTE-NEQIP	Assam Engineering College, Deptt, of Chemical Engineering
12	Ms Nivedita Shroti	1.Waste to wealth: recent trends and advances in development of value added products from waste	2 Days, 01-02 March/2016.	DST, Govt. of M.P.	Department of Chemical Engineering, IES-IPS Academy, Indore (M.P.)

		2. Intellectual Property Rights	2Days, 8-9 April/2016	DST, Govt. of M.P.	Department of Computer Science & Engineering, IES-IPS Academy, Indore (M.P.)
Academic Year: 2015-16					
1.	Prof Ashok Barua	1.Cross-Cultural Analysis and Capacity Building in construction Management practices on Housing and Infrastructure sector in Assam and Australia	4 days , 13th to 16th Dec'2016	Yes	Assam Engineering College
2.	Prof Runjun Das	Advances **i**n Renewable Energy and Its Application	One week, 7-11 March/2016.	AICTE-NEQIP	Assam Engineering College, Deptt. of Electrical Engg., Guwahati
3.	Dr Bandana Chakrabarty	1.Advance Materials for Engineering Application	One week, 25th to 29th April/2016.	AICTE-NEQIP	Assam Engineering College, Deptt. of Chemical Engineering
		2.Advances **i**n Renewable Energy and Its Application	One week, 7-11 March/2016.	AICTE-NEQIP	Assam Engineering College, Deptt. of Chemical Engineering
4.	Prof Tapan Jyoti Sarma	Advance Materials for Engineering Application	One week, 25th to 29th April/2016.	AICTE-NEQIP	Assam Engineering College, Deptt. of Chemical Engineering
5	Dr Kabita Chakrabarty	1.Advance Materials for Engineering Application	One week, 25th to 29th April/2016.	AICTE-NEQIP	Assam Engineering College, Deptt. of Chemical Engineering
		2.Advances **i**n Renewable Energy and Its Application	One week, 7-11 March/2016.	AICTE-NEQIP	Assam Engineering College, Deptt. of Chemical Engineering
6	Dr Ashim Kumar Basumatary	1.Surfactant Mediated Pollutant Removal Techniques	One week, 19-23 Jan/2016.	TEQIP	Centre for Educational Technology, IITG, Deptt. of Chemical Engg., IITG
		2.Advances in Renewable Energy and its Applications	One week, 7-11 March/2016.	NEQIP-AICTE	Assam Engineering College, Guwahati, Deptt. of Electrical Engg.
		3.National Course on 'Biological Treatment of Solid Waste'.	3Days, 8-10 February/2016.	TEQIP	Centre for Educational Technology, IITG, Guwahati
Academic Year: 2014-15					
1.	Prof Ashok Baruah	Introduction to Numerical, Computational and Experimental Mechanics	One week, 9-13 Dec/2014	AICTE	Assam Engg. College, Dept. Of Mechanical Engg.

2.	Prof Runjun Das	1.Introduction to Numerical, Computational and Expt. Mechanics	One week, 9-13 Dec/2014	AICTE	Assam Engg. College, Dept. Of Mechanical Engg.
		2. Environmental Impact Assessment: A tool for Sustainable Development.	9th to 13th eb' 2015	NEQIP	Assam Engineering College, Jalukbari, Deptt. of Chemical Engg.
3.	Dr Bandana Chakrabarty	1.Introduction to Numerical, Computational and Experimental Mechanics	One week, 9-13 Dec/2014	AICTE	Assam Engg. College, Dept. Of Mechanical Engg.
		2.Environmental Impact Assessment: A tool for Sustainable Development.	9th to 13th eb' 2015	NEQIP	Assam Engineering College, Jalukbari, Deptt. of Chemical Engg.
4.	Prof Tapan Jyoti Sarma	Environmental Impact Assessment: A tool for Sustainable Development.	9th to 13th eb' 2015	NEQIP	Assam Engineering College, Jalukbari, Deptt. of Chemical Engg.
5.	Dr Kabita Chakrabarty	1.Introduction to Numerical, Computational and Experimental Mechanics	One week, 9-13 Dec/2014	AICTE	Assam Engg. College, Dept. Of Mechanical Engg.
		2.Environmental Impact Assessment: A tool for Sustainable Development.	9th to 13th eb' 2015	NEQIP	Assam Engineering College, Jalukbari, Deptt. of Chemical Engg.
6.	Dr Ashim Kumar Basumatary	1.National workshop on 'Technical Writing'	2Days 6-7 December/ 2014	TEQIP	Centre for Educational Technology, IITG, Guwahati
		2.National Course on 'MembraneTechnology and Application'	2Days 9-10 December/ 2014	TEQIP	Centre for Educational Technology, IITG, Guwahati
		3.Emerging Micropollutantsin the Environment: Occurrence, Transportation Monitoring and Treatment	4Days, 2-5 March/2015	TEQIP	Centre for Educational Technology, IITG, Departmrnt of Chemical Engg., IITG.
7.	Dr Ujwala Hujuri	1.National School on Sustainable Polymers	One week, 6-9 Jan, 2014	AICTE	IIT Guwahati
		2.Introduction to numerical computational and experimental mechanics	One week, 9-13 Dec, 2014	AICTE	AEC, Guwahati
		3. Transport processes and optimization techniques in polymers	One week, 15-20 Dec, 2014	AICTE	IIT Guwahati

		4. Recent trends in power Engineering and management	One week, 19-23 Jan, 2015.	AICTE	AEC, Guwahati
		5.Environmental Impact Assessment: A tool for sustainable development	9th to 13th eb' 2015	AICTE-NEQIP	Assam Engineering College, Jalukbari, Deptt. of Chemical Engg.
8.	Dr Sanjay Kumar	School on neutron as probes of condensed matter.	One week, 27th – 31st Jan, 2015.	Deptt. of Atomic Research Centre	Bhaba Atomic Research Centre, Mumbai

Name of Faculty	**Max. 5 per Faculty**		
	CAYm1	**CAY*m*2**	**CAY*m*3**
Prof Ashok Baruah	3	3	3
Prof Runjun Das	3	3	5
Dr. Bandana Chakrabarty	3	5	5
Prof Tapan Jyoti Sarma	3	3	3
Dr. Kabita Chakrabarty	3	5	5
Dr. Ashim Kumar Basumatary	3	5	5
Dr. Ujwala Hujuri	3	-	5
Mr. Chiranjib Das	3	-	-
Ms Dolly Talukdar	3	-	-
Mr. Rabindra Kangsha Banik	3	-	-
Nivedita Shroti	3	-	-
Dr Sanjay Jadav	-	-	3
Sum	33	24	34
RF = Number of Faculty required to comply with 15:1 Student-Faculty	13	13	13
Assessment=3×(Sum/0.5RF)	15.2	11.1	15.7
Average Assessment over three years (Marks limited to 15) = 14			

Table B.5.6

Research and Development (30)

Academic Research (10)

Academic Research includes research paper publications, Ph.D. guidance and faculty receiving Ph.D. during the assessment period.

- No. of quality publications in refereed/SCI journals, citations, Books/Book Chapters, etc. (6)
- Ph.D. guided/Ph.D. awarded during the assessment period while working in the institute (4)

esearch Paper Publications

Academic Year:2017-18					
Sr No.	**Faculty Name**	**Title of the paper**	**Name of the Journal / Conference**	**Volume /Issue**	**Year of Publication**
1.	Dr Bandana Chakrabarty	Separation of oil from oily waste water using low cost ceramic membrane	Korean J. Chem. Engineering	34 (10)	2017
Academic Year: 2016-17					
1.	Dr Bandana Chakrabarty	Preparation and Characterization of novel ceramic membranes for micro-filtration applications	Ceramics Internationals	42	2016
2.	Dr Ashim Kumar Basumatary	Performance assessment of MCM-48 ceramic composite membrane by separation of AlCl3 from aqueous solution	Ecotoxicology and Environmental Safety	134	2016
3.	Dr Ashim Kumar Basumatary	Fabrication and performance evaluation of Faujasite (FAU) zeolite composite ultrafiltration membrane by separation of trivalent ions from aqueous solution	Environmental Progress & Sustainable Energy	35	2016
4.	Dr Ashim Kumar Basumatary	Cross flow Ultrafiltration of Cr (VI) using MCM-41, MCM-48 and Faujasite (FAU) zeolite ceramic composite membranes	Chemosphere	153	
5.	Dr Ashim Kumar Basumatary	Removal of FeCl3 from aqueous solution by ultrafiltration using mesoporous MCM-48 ceramic composite membrane	Separation Science and Technology	51	

6.	Dr Ashim Kumar Basumatary	Removal of trivalent metal ions from aqueous solution via cross flow ultrafiltration system using zeolite membranes	Journal of Water Reuse Desalination	6	
7.	Dr Ashim Kumar Basumatary	Iron(III) removal from aqueous solution using MCM-41 ceramic composite membrane	Membrane Water Treatment	7(6)	
Academic Year: 2015-16					
1.	Dr Ashim Kumar Basumatary	Synthesis and characterization of MCM-41-ceramic composite membrane for the separation of chromic acid from aqueous solution	Journal of Membrane Science	475	2015
2.	Dr Ashim Kumar Basumatary	Performance assessment of analcime-C zeolite-ceramic composite membrane by separation of Cr (VI) from aqueous solution	RSC Advances	5	2015
3.	Dr Ashim Kumar Basumatary	Development and characterization of mcm-48 ceramic composite membrane for the removal of Cr (VI) from aqueous solution	ASCE Journal of Environmental Engineering	11	2015

Table 5.7.1.A

Ph.D Awarded

Sr. No.	**Faculty name**	**Year of Award**	**University/ Institute**	**Area of Research**
1.	Dr Ashim Kumar Basumatary	2015	IIT, Guwahati	Fabrication, Characterization of Zeolite Ceramic Composite Membranes and Their Application in separation of Metal Ions from Aqueous Solution

Table 5.7.1.B

Ph.D Guidance

Sr. No.	Faculty name	Name of Student	University	Topic of Research	Registration No.	Status
1.	Dr Bandana Chakrabarty	Mr Bipul Das	Gauhati University	Ceramic membrane – Its Synthesis, Characterization and Application in Industrial Waste water treatment	ENGG-01/13	Thesis Writing
2.	Dr Bandana Chakrabarty	Mr Hemanta jeet Medhi	Gauhati University	Investigation of various prospects of Gasifier generated Biomass Tar for utilizing as Activated Carbon and CNT	ENGG-02/13	Ongoing
3.	Dr Bandana Chakrabarty	Ms Dolly Talukdar	Gauhati University	Performance Characteristics of Vegetable oil based Epoxy Nano Composite using different Nano materials	ENGG-01/14	Ongoing

Table 5.7.1.C

Sponsored Research (5)

Funded research:
(Provide a list with Project Title, Funding Agency, Amount and Duration

Sl No	Project Title	Funding Agency	Amount (in Rupees)	Duration	Year of sanction
1	Fabrication of Tubular Ceramic membrane	NEQIP	10.65 L	1 year	2017
2	Solid waste management in AEC	ASTEC	10,000	1 year	2017-18

Table 5.7.1.D

Development Activities (10)

Product Development

Sr. No	Name of faculty	Name of Product	Year	Product details
1	Tapan Jyoti Sarma	Distillation Column	2017	A lab distillation set-up was developed. The set-up consists of the following components. a) Round bottom flask: capacity=1000ml, two necks, category NO.197/7 b) Fractionating column: category No.281/2, length=400 mm,Socket-B24,Cone-B24 c) Davies condenser: Category No-183, effective length-300mm d) Heating mantle: Capacity=1000ml e) Thermometer: 0-300°C f) Cone fitting : Cone fittingflask-B24, Cone fitting condenser-B19 g) Insulating material: Asbestos wool.
2	Rabindra Kangsha Banik	Solar water heater	2016	Solar water heating system is the conversion of sunlight into useful heat. A parabolic trough solar thermal collector has been developed for water heating. The solar water heating system has two parts; a) Solar collector (5ft*2.5ft). Thickness of collector plate (Al Sheet) = 1 mm. b) Supporting stand (5.2ft*2.1ft*2ft), Thickness of the MS bar = 5 mm. Absorber tubes consist of copper pipes (OD = 6mm).
3	Runjun Das	Solar dryer	2015	Solar drying system is the utilization of direct or indirect solar energy as an alternative method for drying. Drying of food items (e.g. betelnut, chilli, ginger) have been performed. The direct solar dryer has these components: Drying chamber (52.5cm*36.5cm*30cm) Height of stand = 6 cm, Insulation thickness = 2 cm Cover plate (50.5cm*35.5cm), glass thickness = 3mm Absorber Plate (GI Sheet) coated in black Sieve Tray (10BSS SS) = 48.5cm*33.9cm Reflector (Al Sheet): 4 numbers (Top & Bottom = 52.8cm*50.5cm; Right & Left = 55cm*38cm)

Research laboratories

Final Year Students and Research Scholars do their Project work/Research work in various areas by using following facilities. Equipment and analytical instruments are available in various laboratories for project works. Following facilities are available in the department.

SL No	Major Equipments for project works and its analysis
1	UV –Spectro photometer
2	Atomic Absorption Spectroscopy
3	Sonicator Bath
4	Water analysis kit
5	Step wise microprocessorMuffle Furnace
6	Ceramic Extruder Machine
7	Gas Chromatograph
8	Blow Moulding Machine
9	Injection Moulding Machine

To support research, some regular tools like PH meter, Magnetic Stirrer, Conductivity meter, Electronic Balance, Hot Air Oven, etc are available in the Department.

Instructional Materials

1. Laboratory Manuals

2. Operating manuals for instruments

3. Power point presentation & Class notes

4. Handouts

5. Laboratory Safety Instructions

6. Instructional Sheets for Chemical Plants

7. Display of Plant Layout, Process Equipments, etc.

Working models/charts/monograms, *etc*.

Charts are displayed in laboratories:

Laboratory	Chart
Mass Transfer Operation	Distillation Column, Packed Bed Column

Heat Transfer Operation	Heat Exchangers
Chemical Reaction Engg	Reactors
Petroleum Refinery and Production	CDU, VDU
Mechanical Operation	Crushers
Fluid Flow Operation	Pumps, Flowmeters
Process Dynamics and Control	Control valve, PID Controller

Activities and external duties performed

Sl No	Faculty Name	Faculty Development Program (FDP)/ Workshop/ Conference Conducted	Responsibilities beyond Institute
1	Dr. Ashim Kumar Basumatary	FDP, Workshop, Conference	Paper Setter for Assam Public Service Commission (APSC) & Meghalaya Public Service Commission Paper examiner for APSC Expert for selection of Lecturer in Polytechnics under Director of Technical Education (DTE)
2	Tapan Jyoti Sarma	FDP	Committee member of DTE, Govt. of Assam, for proposed Engineering College at Golaghat. Paper Setter for Assam Public Service Commission (APSC) & Arunachal Pradesh Public Service Commission (APPSC) Paper examiner for APSC
3	Ms. Runjun Das	FDP, Workshop	Moderator Assam Public Service Commission (APSC) Paper Examiner of APSC Centre-in-charge of CEE conducted by DTE Paper setter for LJEE
4	Dr. Bandana Chakrabarty		Paper Setter for Assam Public Service Commission (APSC) Paper Setter of GET for Numaligarh Refinery Limited Paper examiner for APSC Expert for selection of Lecturer in Polytechnics under Director of Technical Education (DTE)
5	Dr. Kabita Chakrabarty		Paper Setter for Assam Public Service Commission (APSC) Paper Setter for Arunachal Pradesh Public Service Commission (APPSC) Paper Setter of JE for Numaligarh Refinery Limited

			Moderator APSC Expert for Assistant Professor recruitment under TEQIP-III
6	Ashok Baruah	FDP, Workshop	Paper Setter for Assam Public Service Commission (APSC) Paper Setter of GET for Numaligarh Refinery Limited AICTE Expert Visit Committee (EVC) Expert for Assistant Professor recruitment under TEQIP-III

Consultancy (From Industry) (5)

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Faculty Performance Appraisal and Development System (FPADS) (30)

An effective performance appraisal system for Faculty is vital for optimizing the contribution of individual faculty to Institutional Performance.

(A) Being a Government Institution, there exists a system of taking Faculty Appraisal every year in the form Annual Confidential Reports (ACRs) from all faculties by the Head of the Institution (Principal) which are subsequently forwarded to the Dept. of Higher Education, Govt of Assam. The format is attached in Table 5.8A

Table 5.8A

ANNUAL CONFIDENTIAL REPORTS

(For ACS & all other Technical/ Non-Technical Class I to III Officers of the State)

[See Rule 4(2) of the Assam Services (Confidential Rolls) Rules, 1990]

Report for the period from:_____

Part-I	**PERSONAL DATA** **(To be filled up the Office)**		
1.	Name of the Officer/Employee	:	
2.	Name of the Service to which belongs	:	
3.	Date of Birth	:	
4.	Present Designation	:	
5.	Period absence from duty on leave, Training etc. during the period	:	
6.	Description of work on which engaged during the period	:	
7.	Any special knowledge/ experience/ training/ which facilitate to discharge the allotted work of the officer/ employee	:	

Part-II	**ASSESSMENT BY THE REPORTING AUTHORITY**		
1.	Name(s) and Designation of the Reporting Authority	:	
2.	Period of Service to the incumbent under the Reporting Authority	:	
3.	State of Health	:	
4.	What is your opinion about his/ her	:	
(a)	Aptitude, initiative, drive and efficiency for		
	(i) Arrangement for work	:	
	(ii) Execution for work	:	

	(b)	Intelligence	:	
	(c)	Attendance / Conduct and amenability to Discipline	:	
	(d)	Character, with particular references to Reliability and integrity.	:	
	(e)	Knowledge of laws/ rules and relevant Office procedure	:	
	(f)	Capacity of supervision, inspection and to create team spirit (where applicable)	:	
	(g)	Spirit service for and relationship with public /subordinate staff and superior officers	:	
	(h)	Physical stamina and aptitude for hard touring (where applicable)	:	
	(i)	General remarks, if any	:	
	(j)	What is your opinion about his/her fitness or otherwise for advancement for next higher rank?	:	
		(FOR TECHNICAL OFFICERS ONLY)		
	(k)	Professional ability	(i) Preparation of estimates and projects	
	(l)	Promptness and correctness	(i) Design	
			(ii) Accounts	
			(iii) Control of expenditure	

Date: Recording Authority

Part-III	**OPINION OF THE REVIEWING AUTHORITY**	
1.	Name and designation of the Reviewing Authority	
2.	Period of service the incumbent under the Reviewing Authority	
3.	General opinion of the Reviewing Authority	
4.	Graded	
Date		Reviewing Authority
Part-IV	**REMARKS OF THE ACCEPTING AUTHORITY**	
……..…… ……...		
……..…… ……...		
……..…… ……...		
	Name and Designation of the Accepting Authority	

(B) The Faculty Performance on department basis is evaluated by the HOD for every Academic Year based on the list of attributes given in the **Appraisal Form** shown below:

Table 5.8.B

Faculty Appraisal Form

Rating: 5 - Outstanding. 4 – Very Good. 3 – Good. 2 – Fair. 1 – Poor

Sl No.	Attributes	Rating
1	Helping Student in Academic and Co-curricular activities	
2	Involvement in departmental activities.	
3	Involvement in Institutional activities	
4	Sense of responsibility	
5	Loyalty towards Department and Institution	
6	Leadership qualities	
7	Responsibility towards society	
9	Relationship with other faculties and staff	
10	Keeping abreast with latest technological	
TOTAL MARKS SECURED		
MAXIMUM MARKS		50
% VALUE		
Comments by the HOD of the Department:		

(C) Student feedback is also considered for faculty appraisal. A sample format is given in **Table 5.8.C**

Department of Chemical Engineering
Assam Engineering College
Jalukbari, Guwahati 781013
Assam, India

Semester_____ Session_____

Please **fill in the points (rating from 1 to 5) as per your opinion for the subjects below.

Sl No.	Questionnaire	Subject Name				
		Teachers Name				
		Points	1-5	1-5	1-5	1-5
1.	How do you rate the contents of the curriculum					
2.	Completes the entire course syllabus in time					
3.	Was the classroom delivery audible and understandable					
4.	Discusses the outcome of class-test in the class					
5.	Helping approach towards varied academic interest					
6.	Helps students in providing study material which is not readily available in the text books					
7.	Approach towards developing professional skills/career awareness among students					
8.	Scheduled organization of assignments, class tests and seminars					
9.	Were opportunities provided for questions and discussions					
10.	Helps the students in conducting experiments through set of instructions or demonstrations **[For Subjects having Lab Classes]**					

***Rating Points (1= Poor, 2 = Average, 3 = Good, 4 = Very Good, 5 = Excellent)**

Table 5.8.C

Visiting/Adjunct/Emeritus Faculty etc. (10)