

<b>CRITERION 5</b>	<b>Faculty Information and Contributions</b>	<b>200</b>
<b>Marks Claimed</b>		<b>147.36</b>

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is "No")	Nature of Association (Regular/Contract)
	Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
Dr. Mohd. Noor Salam Khan	Ph.D	IIT Roorkee	2005	Permanent	Professor	8-09-2013	16-05-1989	Chemical	Biochemical	08	04	No	Y	Regular
Dr. Fasil Qayoom Mir	Ph.D	IIT Delhi	2015	Permanent	Associate Professor	9-10-2018	8-03-2002	Chemical	Membrane Science	11	02	No	Y	Regular
Dr. Mushtaq Ahmad Rather	Ph.D	NIT Srinagar	2017	Permanent	Associate Professor	9-10-2018	30-12-2006	Chemical	Energy, Environment	33	05	Yes	Y	Regular
Dr. Tanveer Rasool Dar	Ph.D	NIT Srinagar	2018	Permanent	Asstt. Professor	-	8-03-2002	Chemical	Biomass conversion	12	05	Yes	Y	Regular
Dr. Malik Parvez Ahmad	Ph.D	NIT Srinagar	2018	Permanent	Asstt. Professor	-	30-12-2006	Chemical	CFD	16	03	Yes	Y	Regular
Dr. B. Krishna Srihari	Ph.D	IGCAR	2016	Permanent	Asstt. Professor	-	05-11-2018	Chemical	Micro Channels & CFD	03	0	No	Y	Regular
Dr. Kurella Swamy	Ph.D	IIT Kharagpur	2017	Permanent	Asstt. Professor	-	31-10-2018	Chemical	Industrial Pollution Control	08	01	No	Y	Regular
Dr. Shashikant Kumar	Ph.D	(ISM) Dhanbad	2016	Permanent	Asstt. Professor	-	18-10-2018	Chemical	Membrane Science	01	01	No	Y	Regular
Dr. Fatima Jalid	Ph.D	NIT Srinagar	2020	Permanent	Asstt. Professor	-	08-01-2016	Chemical	Catalysis	09	0	Yes	Y	Regular
Dr. Leela Manohar Aeshala	Ph.D	IIT Guwahati	2014	Permanent	Asstt. Professor	-	15-03-2021	Chemical	Electrochemical synthesis	11	0	No	Y	Regular
Dr. Asma Iqbal	Ph.D	AMU	2019	Permanent	Asstt. Professor	-	15-03-2021	Chemical	Distillation, Modelling & Simulation	14	0	No	Y	Regular
Dr. Brajesh Kumar	Ph.D	IIT Roorkee	2018	Permanent	Asstt. Professor	-	15-03-2021	Chemical	Thermodynamic Analysis, Modelling & Simulation	11	0	No	Y	Regular

Dr.Mohammad Farooq Lala	Ph.D		2002	Permanent	Professor		18-03-1982	Humanities	Marketing & Finance	03	02	No	N	Regular
Dr. Tanveer Jalal	Ph.D	AMU	1993	Permanent	Professor		3-7-1998	Mathematics	Sequence spaces	21	01	No	Y	Regular
Dr. Zamrooda Jabeen	Ph.D	University of Kashmir	2007	Permanent	Associate Professor		6-03-1996	Mathematics	Operations Research	14	01	-	Y	Regular
Mr. Mohammad Asif	M.Tech	AMU	2013	Contractual	Contractual faculty	-	12-08-2015	Chemical	Process Modelling & Simulation	-	-	No	N	Contract
Mr. Mohd. Imran	M.Tech	IIT Roorkee	2014	Contractual	Contractual faculty	-	07-08-2015	Chemical	Industrial Pollution Abatement	-	-	No	N	Contract
Mr. Aash Mohammad	M.Tech	IIT Roorkee	2014	Contractual	Contractual faculty	-	17-08-2015	Chemical	Industrial Pollution Abatement	-	-	No	N	Contract
Mr. Ram Singh	M.Tech	IIT Roorkee	2013	Contractual	Contractual faculty	-	07-08-2015	Chemical	Chemical Engg.	-	-	No	N	Contract
Mr. Tejbir Singh	M.Tech	IIT Roorkee	2014	Contractual	Contractual faculty	-	08-09-2015	Chemical	Chemical Engg.	-	-	No	N	Contract
Mr. Rupak Kumar Singh	M.Tech	IIT-BHU	2013	Contractual	Contractual faculty	-	07-09-2015	Chemical	Microfluidic fuel cells	-	-	No	N	Contract
Miss Parul Singh	M.Tech	AMU	2014	Contractual	Contractual faculty	-	16-03-2016	Chemical	Petroleum Technology	-	-	No	N	Contract
Mr. Mohammad Umair Iqbal	M.Tech	IIT Gandhinagar	2016	Contractual	Contractual faculty	-	19-12-2016	Chemical	Process Safety	-	-	No	N	Contract
Mr. Nasir Ahmed	M.Tech	NIT Jalandhar	2016	Contractual	Contractual faculty	-	17-12-2016	Chemical	Membrane science	-	-	No	N	Contract
Miss Iqra	M.Tech	NIT Srinagar	2017	Contractual	Contractual faculty	-	05-09-2017	Chemical	Membrane science	-	-	No	N	Contract
Dr. Iqra Akbar	Ph.D	IUM Malaysia	2019	Contractual	Contractual faculty	-	05-09-2017	Chemical	Nanotechnology	03	-	No	N	Contract
Dr. Afkham Mir	Ph.D	NIT Jalandhar	2018	Contractual	Contractual faculty	-	05-03-2018	Chemical	Graphene, 2D materials	04	-	No	N	Contract
Dr. Saptak Rarotra	Ph.D	IIT Guwahati	2018	Contractual	Contractual faculty	-	05-03-2018	Chemical	Micro & Nanotechnology	-	-	No	N	Contract
Dr. Sameena Naaz Malik	Ph.D	IIT Mumbai	2019	Contractual	Contractual faculty	-	18-03-2019	Chemical	Waste Water Treatment	06	-	No	N	Contract

Table B.5

**5.1. Student-Faculty Ratio (SFR) (20)****Claimed 14***(To be calculated at Department Level)*No. of UG Programs in the Department (n):**01**No. of PG Programs in the Department (m):**01**No. of Students in UG 2<sup>nd</sup> Year=**u1**No. of Students in UG 3<sup>rd</sup> Year=**u2**No. of Students in UG 4<sup>th</sup> Year=**u3**No. of Students in PG 1<sup>st</sup> Year=**p1**No. of Students in PG 2<sup>nd</sup> 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+UG3+PG1+PG2**F = Total Number of Faculty Members in the Department (excluding first year faculty)***Student Faculty Ratio (SFR) = S / F**

Year	CAY (2020-21)	CAYm1 (2019-20)	CAYm2 (2018-19)
u1.1	103	92	79
u1.2	92	79	77
u1.3	79	77	77
<b>UG1</b>	<b>274</b>	<b>248</b>	<b>233</b>
p1.1	22	22	18
p1.2	22	18	18
<b>PG1</b>	<b>44</b>	<b>40</b>	<b>36</b>
Total No. of Students in the Department ( <b>S</b> )	<b>318</b>	<b>288</b>	<b>269</b>
No. of Faculty in the Department ( <b>F</b> )	<b>14</b>	<b>14</b>	<b>16</b>
Student Faculty Ratio (SFR)	<b>22.71</b>	<b>20.57</b>	<b>16.81</b>
Average SFR	<b>20.03</b>		

*Table B.5.1*

<b>Assessment</b>	<b>14</b>
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Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:

= 15 - 20 Marks

&lt;= 17 - 18 Marks

&lt;= 19 - 16 Marks

&lt;= 21 - 14 Marks &lt;= 23 - 12 Marks

<= 25 - 10 Marks

> 25.0 - 0 Marks

Note:

Minimum 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.

**5.1.1. Provide the information about the regular and contractual faculty as per the format mentioned below:**

	Total number of regular faculty in the department	Total number of contractual faculty in the department
<b>CAY (2020-21)</b>	14	03
<b>CAYm1 (2019-20)</b>	11	03
<b>CAYm2 (2018-19)</b>	12	05

*Table 5.1.1*

## 5.2. Faculty Cadre Proportion (20)

Claimed 20

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

F1: Number of Professors required =  $1/9 \times$  Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F2: Number of Associate Professors required =  $2/9 \times$  Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F3: Number of Assistant Professors required =  $6/9 \times$  Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
<b>CAY (2020-21)</b>	1.77	2	3.54	3	10.62	8
<b>CAYm1 (2019-20)</b>	1.6	1	3.2	4	9.6	9
<b>CAYm2 (2018-19)</b>	1.49	2	2.98	4	8.94	10
<b>Average Numbers</b>	RF1=1.62	AF1=1.66	RF2=3.24	AF2=3.67	RF3=9.72	AF3=9

*Table B.5.2*

$$\text{Cadre Ratio marks} = \left[ \left( \frac{AF1}{RF1} \right) + \left( \frac{AF2}{RF2} \times 0.6 \right) + \left( \frac{AF3}{RF3} \times 0.4 \right) \right] \times 10 = 20 \text{ (limited to 20)}$$

- If AF1 = AF2= 0 then zero marks
- Maximum marks to be limited if it exceeds 20

Example: Intake = 180; Required number of Faculty: 12; RF1= 1, RF2=2 and RF3=9

Case 1: AF1/RF1= 1; AF2/RF2 = 1; AF3/RF3 = 1; Cadre proportion marks = (1+0.6+0.4) x10

= 20

Case 2: AF1/RF1= 1; AF2/RF2 = 3/2; AF3/RF3 = 8/9; Cadre proportion marks = (1+0.9+0.3) x 10 = limited to 20

Case 3: AF1/RF1=0; AF2/RF2=1/2; AF3/RF3=11/9; Cadre proportion marks = (0+0.3+0.49) x 10 = 7.9

### 5.3. Faculty Qualification (20)

Claimed 14.70

FQ = 2.0 x [(10X + 4Y)/F] where x is no. of regular faculty with Ph.D., Y is no. of regular faculty with M. Tech., F is no. of regular faculty required to comply 20:1 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

	X	Y	F	FQ=2.0 x [(10X +4Y)/F]
CAY (2020-21)	11	0	15.9	13.84
CAYm1 (2019-20)	10	0	14.4	13.89
CAYm2 (2018-19)	11	0	13.45	16.36
<b>Average Assessment</b>				<b>14.7</b>

Table B.5.3

### 5.4 Faculty Retention (10)

Claimed 10

No. of regular faculty members in CAYm1=10      CAY = 11

Item (% of faculty retained during the period of assessment keeping CAYm2 as base year)	Marks
>=90% of required Faculty members retained during the period of three academic years keeping CAYm2 as base year	10
>=75% of required Faculty members retained during the period of three academic years keeping CAYm2 as base year	08
>=60% of required Faculty members retained during the period of three academic years keeping CAYm2 as base year	06
>=50% of required Faculty members retained during the period of three academic years keeping CAYm2 as base year	04
<50% of required Faculty members retained during the period of three academic years keeping CAYm2 as base year	0

Table B.5.4

FACULTY RETENTION			
DESCRIPTION	CAY (2020-21)	CAYm1 (2019-20)	CAYm2 (2018-19)
No of Faculty Retained	14	14	16
Required Faculty	15.9	14.4	13.45
% Of Faculty Retained	88.05	97.2	118.9
<b>AVERAGE ASSESSMENT</b>			<b>101.4</b>

<b>Assessment</b>	<b>10</b>
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### 5.5 Faculty competencies in correlation to Program Specific Criteria (10) Claimed 10

Faculty members of Chemical Engineering Department are specialized in diversified areas of Chemical Engineering. They have good research exposure and have published research papers in journals of repute (American Chemical Society (ACS), Springer, Elsevier, Taylor and Francis, etc.) and presented several papers in national and international conferences in India as well as abroad. Faculty has got the provision for going for higher studies sponsored by the Institute under QIP. The faculty members participate in FDPs, STCs, and Workshops to upgrade their knowledge in latest field of research. Faculty is involved in developing working models for laboratories for the effective teaching-learning process. Faculty members are also actively involved in conducting events such as STCs and Workshops. Faculty shows keen interest in developing central library facility by recommending latest books for the benefit of students and faculty. Faculty members also take keen interest in developing research facilities for the benefit of B.Tech., M.Tech. and Ph.D students. The Department of Chemical Engineering has faculty expertise available in the domains of Transport Processes, Biochemical Engineering, Membrane science & Engineering, Energy & Environment, Modeling and Simulation, CFD, Catalysis, Nanotechnology, Mathematics, Electrical Technology, Electronics and Management, etc. The Faculty in each domain and their research areas are given below:

Name of Faculty	Qualification	Area of Specialization/ Research Area
Dr. Mohd. Noor Salam Khan	Ph.D (Chemical Engineering)	Fermentation, Bioseparation, Modeling and Simulation, Energy from Biomass and Pollution Abatement.
Dr. Fasil Qayoom Mir	Ph.D (Chemical Engineering)	Membranes, Electrochemical systems, Electrodialysis, Fuel cells, Heat Transfer and Fluid Mechanics.
Dr. Mushtaq Ahmad Rather	Ph.D (Chemical Engineering)	Energy, Environment, Nanotechnology, Waste water Treatment, Biomass Conversion, Photo-catalysis, Biofuels.
Dr. Tanveer Rasool Dar	Ph.D (Chemical Engineering)	Biomass conversion Technology, Industrial Pollution Abatement, Modeling and Simulation, Material Science & Technology, Environment Technology.
Dr. Malik Parvez Ahmad	Ph.D (Chemical Engineering)	CFD, Heat and Mass Transfer, Fluid flow, nanotechnology, Multiphase flow.
Dr. B. Krishna Srihari	Ph.D (Chemical Engineering)	Micro Channels, Liquid-Liquid Slug Flow, Fluid Mechanics, Carbon dioxide reduction, CFD, Microfluidics, Waste Water Treatment, Solid Waste Management, Heat, Mass and Fluid Flow Simulations using COMSOL Multiphysics.
Dr. Kurella Swamy	Ph.D (Chemical Engineering)	Industrial Pollution Control, Phase Transfer Catalysis, Coal Gasification, Separation and Purification Processes.
Dr. Shashikant Kumar	Ph.D (Chemical Engineering)	Membrane Separation, Waste water treatment.
Dr. Mohammad Farooq Lala	Ph.D (Humanities & Social Sciences)	Marketing & Finance
Dr. Tanveer Jalal	Ph.D (Mathematics)	Sequence spaces, Summability theory
Dr. Zamrooda Jabeen	Ph.D (Mathematics)	Operations Research.
Dr. Fatima Jalid	B.Tech (Chemical Engineering) Registered for Ph.D at IIT Delhi	Computational Catalysis, Microkinetic Modelling, Heterogeneous Catalysis, Electrodialysis.

Dr. Leela Manohar Aeshala	Ph.D (Chemical Engineering)	Electrochemical Reduction of Carbon Dioxide, Solid Polymer Electrolyte.
Dr. Asma Iqbal	Ph.D (Chemical Engineering)	Distillation based separation processes, Conceptual process flowsheet design, Modeling and Simulation
Dr. Brajesh Kumar	Ph.D (Chemical Engineering)	Thermodynamic Analysis, Chemical Reaction Engineering, Renewable Energy, Modeling And Simulation.
Dr. Iqra Akbar	Ph.D ( Bio-Chemical Engineering)	Nanotechnology, Environmental Engineering, Pharmaceuticals, Nutraceuticals
Dr. Afkham Mir	Ph.D (Chemical Engineering)	Synthesis and applications of 2D materials (graphene) • Advanced functional energy materials (membranes) • Energy storage devices (graphene supercapacitors, FETs).
Dr. Sameena Naaz Malik	Ph.D (Chemical Engineering)	Waste Water Treatment.

<b>Assessment</b>	<b>10</b>
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### 5.6 Innovations by the Faculty in Teaching and Learning (10)

<b>Claimed 10</b>
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#### Instructional materials

Each classroom is equipped with overhead projectors and some are equipped with the state-of-the-art smart boards. Study material prepared by teachers using standard text books and reference books are used for instruction of the students. Other instruction tools are whiteboard, charts and diagrams and laboratory demonstration models.

#### Working models/charts/monograms:

Apart from the test rigs and experimental set-ups, the labs of the Chemical Engineering Department are equipped with different high end equipment such as CHNS analyzer, Capillary Flow Porometer, Potentiostat, HPLC, FTIR, BET analyzer, Spectrophotometers, Bioreactor, Digital Bomb Calorimeter and working models for the effective teaching-learning process.

<b>Assessment</b>	<b>10</b>
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### 5.7 Faculty as participants in faculty development/training activities/STTPs (15)

<b>Claimed 8.66</b>
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- A Faculty scores maximum five points for participation
- Participation in 2 to 5 days Faculty/faculty development program: 3 Points
- Participation >5 days Faculty/faculty development program: 5 points

Name of the Faculty	Max. 5 per Faculty		
	CAYm1 (2019-20)	CAYm2 (2018-19)	CAYm3 (2017-18)
Dr. Mohd. Noor Salam Khan	-	-	3
Dr. Fasil Qayoom Mir	-	5	3
Dr. Mushtaq Ahmad Rather	-	3	5
Dr. Tanveer Rasool Dar	-	3	5
Dr. Malik Parvez Ahmad	-	-	5
Dr. B. Krishna Srihari	-	5	-
Dr. Kurella Swamy	-	5	-
Dr. Shashikant Kumar	-	5	-
Miss Fatima Jalid	-	3	5
Dr. Mohammad Farooq Lala	-	-	-
Dr. Tanveer Jalal	-	3	-
Dr. Zamrooda Jabeen	-	-	-
<b>Sum</b>	-	<b>32</b>	<b>26</b>
<b>RF= Number of Faculty required to comply with 20:1 Student-Faculty ratio as per 5.1</b>	14.4	13.45	13.35
<b>Assessment = 3 × (Sum/0.5RF) (Marks limited to 15)</b>	-	14.29	11.69
<b>Average assessment over three years (Marks limited to 15) =</b>			<b>8.66</b>

Table B.5.7

## 5.8 Research and Development (75)

Claimed 40

## 5.8.1 Academic research (20)

Claimed 20

Pub: No. of research publications in refereed/SCI Journals, Conferences, Books, Book Chapters, etc.

PhD: No. of Ph. D. Scholars registered/ awarded

Name of the Faculty	CAY (2020-2021)		CAYm1 (2019-20)		CAYm2 (2018-19)	
	Pub	PhD	Pub	PhD	Pub	PhD
Dr. Mohd. Noor Salam Khan	01	1-Awarded	0	0-Awarded	02	0-Awarded
		02-Total Reg.		03-Total Reg.		04-Total Reg.
Dr. Fasil Qayoom Mir	03	1-Awarded	2	0-Awarded	07	0-Awarded
		02-Total Reg.		02-Total Reg.		02-Total Reg.
Dr. Mushtaq Ahmad Rather	06	0-Awarded	0	0-Awarded	17	0-Awarded
		05-Total Reg.		05-Total Reg.		03-Total Reg.
Dr. Tanveer Rasool Dar	01	0-Awarded	0	0-Awarded	06	0-Awarded
		05-Total Reg.		05-Total Reg.		0-Total Reg.
Dr. Malik Parvez Ahmad	0	0-Awarded	0	0-Awarded	11	0-Awarded
		3-Total Reg.		2-Total Reg.		0-Total Reg.
Miss Fatima Jalid	03	0-Awarded	01	0-Awarded	04	0-Awarded
		0-Total Reg.		0-Total Reg.		0-Total Reg.
Dr. B. Krishna Srihari	01	0-Awarded	01	0-Awarded	01	-
		0-Total Reg.		0-Total Reg.		



Dr. Kurella Swamy	01	0-Awarded	0	0-Awarded	0	-
		1-Total Reg.		0-Total Reg.		
Dr. Shashikant Kumar	0	0-Awarded	0	0-Awarded	0	0-Awarded
		01-Total Reg.		01-Total Reg.		01-Total Reg.
Dr. Leela Manohar Aeshala	01	0-Awarded	0	0-Awarded	0	0-Awarded
		0-Total Reg.		0-Total Reg.		0-Total Reg.
Dr. Asma Iqbal	07	0-Awarded	03	0-Awarded	03	0-Awarded
		0-Total Reg.		0-Total Reg.		0-Total Reg.
Dr. Brajesh Kumar	0	0-Awarded	0	0-Awarded	01	0-Awarded
		0-Total Reg.		0-Total Reg.		0-Total Reg.
Dr. Mohammad Farooq Lala	0	-	0	-	-	-
		-		-		-
Dr. Tanveer Jalaal	03	0-Awarded	03	0-Awarded	6	1-Awarded
		01-Total Reg.		0-Total Reg.		0-Total Reg.
Dr. Zamrooda Jabeen	0	0-Awarded	01	0-Awarded	01	-
		2-Total Reg.		0-Total Reg.		
Dr. Afkham Mir	0	0-Awarded	0	0-Awarded	03	
		0-Total Reg.		0-Total Reg.		
Dr. Iqra Akbar	0	0-Awarded	0	0-Awarded	-	-
		0-Total Reg.		0-Total Reg.		-
Dr. Sameena Naaz Malik	-	-	-	-	04	
		-		-		
<b>Assessment</b>						<b>20</b>

### 5.8.2 Sponsored research (20)

Claimed 05

Funded research from outside:

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

Funding Amount (Cumulative during last three academic years starting from CAYm1):

Amount > 50 Lacs – 20 Marks,

Amount > 40 and ≤50 Lacs – 15 Marks,

Amount > 30 and ≤40 Lacs – 10 Marks,

Amount ≥15 and ≤30 Lacs – 5 Marks,

Amount < 15 Lacs – 0 Marks

S.No	Name	Agency	Amount
1.	Briqueting of Dal Lake weeds to serve as a fuel source.	MHRD-Swachhata Action plan	24.94 lakhs
<b>Assessment</b>			<b>05</b>

### 5.8.3 Development activities (15)

Claimed 15

Provide details:

5.8.3.1 Product Development

5.8.3.2 Research laboratories

5.8.3.3 Instructional materials

5.8.3.4 Working models/charts/monograms etc.

**5.8.3.1 In house product development:**

S.No	Name of product
1.	Development of microfiltration test cell.
2.	Development of manual press for compression.
3.	Fabrication of die for ceramic membrane preparation.
4.	Fabrication and development of Electrodialysis cell.
5.	Development of various types of membranes for different industrial applications.
6.	Design and fabrication of packed column in order to determine flow characteristics and pressure drop in non-newtonian fluid through different packings.
7.	Design and fabrication of VLE still for generation of equilibrium data.
8.	Design and fabrication of helical coil heat exchanger for heat transfer enhancement using nano fluid.
9.	Fabrication of experimental setup to carry out photocatalysis involving UV light employing UV LED's than traditional UV tube.

**5.8.3.2 Research laboratories**

S.No.	Name
1.	Energy Engineering Lab.
2.	Environmental Engineering Lab.
3.	Catalysis Lab.
4.	Biochemical Engineering Lab.
5.	Membrane Science & Technology Lab.
6.	Multiphase Engineering Lab.

**5.8.3.3 Instructional materials**

Each high-end equipment in every research lab is supported with instruction manuals and operating software for proper and safe use. The instruction material also provides procedure for calibrating and troubleshooting of the equipment.

**5.8.3.4 Working models/charts/monograms etc.**

Apart from different high-end equipment such as CHNS analyzer, Capillary Flow Porometer, Potentiostat, BET analyzer, HPLC, FTIR, Spectrophotometers, Bioreactor, Digital Bomb Calorimeter working models like Electrodialysis cell, Microfiltration cell, distillation still, packed columns etc. are available in the department for the effective teaching-learning process.

<b>Assessment</b>	<b>15</b>
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**5.8.4 Consultancy (from Industry) (20)****Claimed 0**

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

Funding Amount (Cumulative during last three academic years starting from CAYm1):

Amount >10 Lacs – 20 Marks,

Amount  $\leq 10$  and  $\geq 8$  Lacs – 15 Marks,

Amount < 8 and  $\geq 6$  Lacs– 10 Marks,

Amount < 6 and  $\geq 4$  Lacs–5 Marks,  
 Amount < 4 and  $\geq 2$  Lacs– 2 Marks,  
 Amount <2 Lacs – 0 Marks

S.No	Name	Amount
01.	M/S Green Energy	11,100/-
02.	M/S NCC Ltd. AIIMS Awantipora	17,500/-

### 5.9 Faculty Performance Appraisal and Development System (FPADS) (10) Claimed 10

The institute has in place a continuous, incisive, well-organized, and effective faculty performance appraisal system for the faculty members. For this purpose, an “Annual Assessment Report for the Faculty and the Staff” is prepared for every member. This report gives a detailed description of the members’ contribution to teaching-learning process, contribution in laboratory development, course development and development of teaching aids, laboratory manuals, and special lectures. In addition, participation in of organizing seminars, symposia, conferences, continuing education programs, research and development activities, sponsored research projects, contribution to department and institute administration, etc., are also taken into account. A copy of the Assessment form is provided in the Annexure-A. The annual assessment report is given due consideration in the process of promotion and up-gradation of faculty members and hence plays a vital role in the development of the academic, research and administrative system of the institute.

<b>Assessment</b>	<b>10</b>
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### 5.10 Visiting/Adjunct/Emeritus Faculty etc. (10) Claimed 10

Adjunct faculty also includes Industry experts. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty etc. for all the assessment years:

5.10.1 Provision of visiting/adjunct faculty (1)

5.10.2 Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc. (9)

(Minimum 50 hours’ interaction in a year will result in 3 marks for that year; 3marks x 3years= 9 marks)

#### 2017-2018

Sl. No.	Date	Name of Event	Delivered By
01	Sep 6-7, 2017	“Youth Entrepreneurship in conflict areas” Symposium in Srinagar, J&K	CHINAR International in association with South Asia Network of Impact Masters and IIED Center, NIT Srinagar
02	Oct 2, 2017 (MEGA EVENT)	IDEA CHALLENGE 2017 – “The Future World”	IIED Center
03	Oct 2, 2017	Swachh Bharat Abhiyan	Srinagar Municipal Corporation
04	Oct 2, 2017	Orientation Session of Batch 2016 & Batch 2017	IIED Center
05	Oct 5, 2017	Orientation program of “The Better You”	STARTUP KASHMIR
06	Oct 29, 2017	One day seminar on “Importance of international certification in Design,	CETPA Infotech. Pvt. Ltd.

		Automation and IT industries”	
07	Nov 2, 2017	Interaction Session with “Prof. Anil Kumar Gupta”, Founder of Honey Bee Network.	Central University of Kashmir
08	Nov 9, 2017	Catalysing a cultural shift in youth entrepreneurship	EDP Cell on National Entrepreneurship Day
09	May 07, 2018	Lecture on Gas Hydrates	Dr. Jatindra Sangwai, Centre of Ocean Technology (IIT Madras)
10	July 2018	5 day workshop on “Project Planning & Control with Primavera”	- IIED Center

**2018-19**

<b>S. No.</b>	<b>Date</b>	<b>Name of Event</b>	<b>Delivered By</b>
1.	March 23	Awareness Programme on “Industrial Policy, Schemes, and initiatives”.	DIC Srinagar
2.	May 2019	Two Day Workshop on E-Summit	IIED Center

<b>Assessment</b>	<b>10</b>
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