

# **COMPILED PROGRESS REPORT**

**(2015-2022)**



**UNDER  
DBT STAR COLLEGE SCHEME**

**Submitted to  
DBT, Govt. of India  
NEW DELHI**



**By  
Jawaharlal Nehru College  
Kamrup, Assam  
Boko- 781 123**

**Date: 18.04.201**  
**COMPILED PROGRESS REPORT OF DBT'S STAR COLLEGE SCHEME**

**JAWAHARLAL NEHRU COLLEGE, BOKO, ASSAM**  
**From 2015-16 to 2018-19**  
**(Year of Sanction: 2015, Grant received on: 30.05.2015)**

1. Name of the College : **Jawaharlal Nehru College**  
P.O.: Boko, Dist: Kamrup  
Assam, 781123
2. Status(Govt. /Govt. Aided/ Autonomous/Pvt.): **Government Aided and Rural**
3. Urban/Rural : **Rural (Under Rabha Hasong Autonomous Council/ 80% students belongs to ST, SC, Minorities)**
4. No. of departments supported : **5(five); Botany, Chemistry, Mathematics, Physics and Zoology**
5. **Students data:**  
**Name of the Course: 1. B.Sc. Major/ General      2. PG in Mathematics (2017)**

**SUMMARY OF THE OVER ALL ACTIVITIES UNDER STAR COLLEGE SCHEME**

**(Department wise)**

Department	Student Project (Total in three years)	Lab/ Field visit/ Educational tour arranged	Summer training	Hands-on training/ Workshop/ awareness prog.	Guest faculty invited/ invited talk arranged	Faculty trained for skill development
Botany	06 (Not mandatory in the syllabus)	11	02	09	04	04
Chemistry	15	08	01	10	08	03
Mathematics	24	03	01	10	07	04
Physics	14	04	01	06	04	03
Zoology	41	11	01	10	05	04

**Programme organized/ attended by Programme coordinator for all the participating departments**  
**(Inter departmental)**

Motivational/ awareness Lecture arranged	Invited Lecture	Student exchange programme	Out-reach programme	Training for Teaching and Non-teaching staff	Attended different DBT Progrms
02	06	05	04	03	03

**Important Scheduled Programme to be organized under Star College Scheme:**

1. National Seminar on “Science, Society and Sustainable development” on **3<sup>rd</sup> and 4<sup>th</sup> May, 2019**
2. Popular Talk on “**Effective Tuberculosis Vaccine**” by Dr. **Pawan Sarma**, former Sr. Scientist, ICGEB, New Delhion **26<sup>th</sup> April, 2019**

**Department wise detailed activity under Star College Scheme (2015-16 to 2018-19)**

# I. Department of Botany:

## a. Student Project:( Not mandatory in the syllabus)

Sl no.		Title of the Project	Name of the Student	Supervisors
Department of Botany				
1	2016	Study on the diseases of Cultivated crops in Boko area. (2016)	Nayanjyoti Rabha Bibek Mishra Togan Momin Nilima Mandal	Mr. Pinaki Kumar Rabha
2	2017	Study of Non-Conventional Food in Boko Area.(2017)	Paragmoni Das Trailakya Kalita Jhonty Rabha Trishnamoni Boro	Mr. Pinaki Kumar Rabha
3	2017	Phenological Studies of the Flora of J. N. College Campus(2017)	Sofikul Islam Raktima Bora Manshi Kalita Bikram Kalita	Dr. Habibur Rahman,
4	2018	Screening of phytochemicals from <i>Zanthoxylum oxyphyllum</i> : A traditional herbs used by Rabha Tribes.(2018)	Mrinmoy Rabha Mitali Kalita Taibur Rahman	Dr. Tapan Dutta Dr. Rekha Bora Seema Khakhalary
5	2018	Study of common disease in some economically important crops in Boko, Kamrup(R) area	Manashjyoti Sarma Johnmoni Boro Tridip Talukdar	Mr. Pinaki Kumar Rabha
6	2019	Study and documentation of Angiospermic flora of J.N. College Campus (On going)	Gokorna Das Habiba Akhtar Jyotirupa Boro Leena Rabha	Dr. Tapan Dutta Dr. Rekha Bora

## b. Visit to Research Institute/ Industries/ Field:

Sl. No	Place Visited	Number of Students	Year and Months
1	Acharya Jagadish Ch. Bose Botanical Garden and National Herbarium, Kolkatta, Science city, Meuseum	11	October, 2015
2	State Biotech Hub, Guwahati	25	March, 2016
3	Pabitora Wildlife Sanctuary, Morigaon, Assam	44	18 <sup>th</sup> Feb. 2017
4	Visit to Daffodil Nursery cum Horticulture Training centre, 7 <sup>th</sup> Largest Nursery in India; Khetri, Kamrup Metro.	19	1 <sup>st</sup> Nov.2017
5	Visit to Botanical Garden, Gauhati University	19	1 <sup>st</sup> Nov.2017
6	Lab. Visit to Institute of Advance Study in Science and Technology, Guwahati.	26	17 <sup>th</sup> Oct. 2017

7	Exposure Tour To Delhi and Agra and visited Inter University Accelerator Centre, Jamia Millia University etc.	23	23 <sup>rd</sup> Oct. to 29 <sup>th</sup> Oct 2017
8	Lab Visit: Guwahati Biotech Park, IIT, Guwahati	48	11 <sup>th</sup> Oct. 2018
9	Field Visit: Horticultural Research Station, Azara	48	11 <sup>th</sup> Oct. 2018
10	Field Tour “ Study of the flora of Mugakhol, Boko”	45	29 <sup>th</sup> Oct.2018
11	Educational Tour To Kolkata, Santiniketon & Mandarmani	21	5 <sup>th</sup> January to 11 <sup>th</sup> Jan, 2019

**c. Summer Training: Inter departmental**

Topic	Date	Number of participants	Beneficiaries
“Introduction to basic laboratory Instruments”	1st July 2016 to 5 <sup>th</sup> July 2016	20	Second semester major students of Botany, Zoology and Chemistry
Summer Camp: Learning on Basic Science	26 <sup>th</sup> June to 2 <sup>nd</sup> July, 2018	52	All science 5 <sup>th</sup> Sem Major Students

**d. Hands on training/Workshops/ awareness programme for students of Host institute and other nearby college:**

Sl. No	Year	Title of Training/ workshop	Duration (Days)	Number of participants	Beneficiaries
1	2015	Plant Identification and Herbarium Technique	01	27	Students
2	2016	Applications of Bioinformatics: Tools and Techniques(2016)	05	27	Students/ faculties From JNC and Dudhnoi College
3	2016	Plant DNA Extraction and Agarose Gel Electrophoresis	03	24	Students from JNC and BP Chaliha College
4	2017	Bioinformatics for Beginners(2017)	05	25	6 <sup>th</sup> Sem Students Botany and Zoology
5	2018	Hands on Training: ‘Protein Sequence and Their Application’.	01	18	6 <sup>th</sup> Sem Students
6	2018	Application of Computer in Biological Science	02	32	6 <sup>th</sup> Sem Students
7	2018	Workshop on “Basic Microbiological Technique”	06	20	3 <sup>rd</sup> and 5 <sup>th</sup> Sem major students
8	2018	Workshop on “Chromatography and its Application”	02	52	3 <sup>rd</sup> and 5 <sup>th</sup> Sem major Students of Botany and Chemistry
9	2019	Hands on Training on: ‘Basic Bioinformatics for Beginners’	05	35	6 <sup>th</sup> Sem students from host college and Dudhnoi College

## II. Department of Chemistry:

### a. Student Project: ( Not mandatory in the syllabus)

Sl No.	Title of the Project	Name of the Student	Supervisors
1	A comparative study on effectiveness of Some Commercially available Antacids.	Mahmuda Begum	Dr Apurba Kr Goswami (2015)
2	Extraction and Estimation of Tanin in Tea leaves.	Rita Rabha	Miss. Bhanita Goswami Mr. Pinaki kr. Rabha(Botany) (2015)
3	Study of Water Hardness in and Around Chamaria Block, Kamrup	Jyotirupa Mazumdar	Dr Jyoti P Sarma Baruah (2015)
4	Extraction of Bio-degradable Polymers(Suberene) from sugarcane husk	Kalidas Mandal	Dr Nuruddin Ahmed (2015)
5	Graphene: A Two Dimensional Carbon.	Nipjyoti Kalita	Dr. Nuruddin Ahmed(2016)
6	Classification and characterization of various available reagents with respect to their environmental and thermal stability.	Dhiraj Mahanta	Dr. Apurba Kr Goswami (2016)
7	Theriotical study and survey on small ring compounds formed by Diels Alder Cycloaddition reaction and their classification	Dipankar Pathak	Dr. Jyoti P Sarma Baruah(2016)
8	Dendrimar : Organic molecules synthesis and characterization.	Uttam Mandal	Bhanita Goswami(2017)
9	Bio-degradable Polymers	Ganesh Mandal	Dr. Nuruddin Ahmed(2017)
10	Analysis of Soil samples in and around Boko	Mohibul Islam	Dr. Jyoti P Sarma Baruah(2017)
11	Theoretical Survey of Organic Condensation Reactions	Monzila Begum	Dr Nuruddin Ahmed (2018)
12	Structure and stability of Palladium Carbonyl Complexes	Joychand Ali	Jyotshna Das(2018)
13	Study of Surface Water Quality of Deepor Beel	Jiadur Alom	Deba Kr Das(2018)
14	Comparative Study of Cow Milk with Soya bean Milk	Mehebab Ali	Dr AK Goswami (2018)
15	Physicochemical Survey of River Water of Boko	Tarali Choudhury	Dr JP Sarma Baruah (2018)

**b. Visit to Research Institute/ Industries/ Field:**

Sl. No.	Place visited	Number of students	Months
1	Kolkata (Science city, Presidency, College)	10	October – 2015
2	Dept of Chemistry, Gauhati University	25	February – 2016
3	University of Science and Technology, Meghalaya	10	March – 2017
4	Dept of Chemistry, IIT – Guwahati	12	October – 2017
5	Kolkata (Science city, Indian Museum, etc.)	11	January – 2018
6	<b>Laboratory visit:</b> Department of Chemistry, Gauhati University	12	10.10.2018
7	<b>University visit:</b> Sikkim University <b>Laboratory visit:</b> 1). Sikkim Manipal Institute of Technology 2). Govt. Fruit Preservation Factory, Govt. of Sikkim Singtam, Sikkim	15	05.02.2019  06.02.2019
8	University of Science and Technology , Meghalaya <b>Theme:</b> To participate North-East Graduate Congress – 2019 along with 116 Colleges & Universities of NE – region	30	15-17, Feb., 2019

**c. Hands on training/Workshops/ awareness programme for students of Host institute and other nearby college:**

Sl. No	Title of Training/ workshop	Duration (Days)	Number of participants	Beneficiaries
1	Common Laboratory processes(2016)	03	38	Students
2	Chemagic: Magic on Chemistry(2016)	01	110	Students
3	Computer application in Chemical Science (2017)	01	56	Students as well as Teachers
4	Hands on Training on Spectrophotometer (2017)	01	30	Students
5	Awareness programme on Mugha Culture in collaboration with Central Silk Board (2017)	01	86	Students
6	Hands on Training:Theme: Preparation of Standard Solution : For Synthetic Analysis <b>14.06.2018&amp; 15.06.2018</b>	02	56	IV semester General Students
7	Inter Departmental (Botany) Workshop on “Chromatography and its Application” <b>18-20 August, 2018</b>	03	52	Students from Chemistry and Botany Department
8	Popular Talk on “NMR and its Application” <b>20.8.2018</b>	01	44	Chemistry Major and General Students

9	Seminar on Spectroscopy Theme: IR and Raman Spectroscopy Principles and Chemical Applications <b>16.3.2019</b>	01	50	Major Students from Chemistry and Physics department
10	Awareness Programme on World Water Day: Theme: Living No one behind : <b>22.3.2019</b>	01	36	V Sem B.Sc. Students

### III. Department of Mathematics

#### a. Student Project:

Sl No.	Name of the project	Name of supervisor	Name of student	Year
01	Application of Computer and some Numerical Methods used in Research paper	Dr. Dhiraj Kr. Das Dr. Ranjit Baishya	Jatindra Boro	2015
02	Self-Similarity Dimension of the Factual Object: Sierpinski Triangle	Dr. Nabajyoti Das	Jyoti Prasad Boro	2015
03	Some Application of Mathematical Logic in Daily Life	Dr. Dipankar Sarma	Azmal Ali	2015
04	Some number Theoretic Functions and their Application	Dr. Dipankar Sarma	Prabir Kr. Tulsary	2015
05	Dimension of the Koch curve	Dr. Nabajyoti Das	Dipumoni Nath	2016
06	Microsoft Excel and its application in the field of Education	Dr. Dhiraj Kr. Das Mr. Niranjan Mahanta (Education)	Bashudeb Barai	2016
07	Numerical analysis and its applications	Dr. Alok Das	Hitesh Medhi	2016
08	c-programming and its applications	Dr. Dhiraj Kr. Das	Rinku Das	2016
09	Introduction to parallax and some of its applications	Dr. Alok Das Mrs. Minati Barman	Tralakya Basumatary	2017
10	Introduction to bipartite graph and some applications	Dr. Nabajyoti Das	Mridul Islam	2017
11	Introduction to eclipse	Dr. Alok Das	Jutika Rabha	2017
12	Numerical solution of ordinary differential equation	Dr. Dhiraj Kr. Das	Anamika Das	2017
13	Mathematic models of some real world problem	Dr. Dhiraj Kr. Das	Garima Das	2017
14	Solving transportation problems using north-west corner method	Dr. Dipankar Sarma	Amiya Das	2017
15	The mathematics of astrology	Dr. Alok Das	Ripunjoy Choudhury	2018
16	Origin of graph theory and its application	Mr. Kabindra Goswami	Dhritismita Thakuria	2018
17	A study of algorithm and flowchart	Dr. Alok Das	Priobrat Rabha	2018

18	A study of pressure on fluid	Dr. Dhiraj Kr. Das	HemoprabhaBoro	2018
19	Eigenvalue and eigenvector: its approach to the solution of differential equations	Dr. Dhiraj Kr. Das	Trina Mahanta	2018
20	Boolean algebra and its application	Dr. DipankarSarma	SewabratDeka	2018
21	Linear programming problem and its application	Mr. KabindraGoswami	Pranjit Das	2018
22	Some aspects of Eulerian and Hamiltonian graph	Dr. Nabajyoti Das	Hirakjyoti Das	2018
23	Connectivity of graph theory	Dr. Nabajyoti Das	Md. Jeherul Islam	2018
24	Introduction of computer	Mrs. Dolly Thakuria	BikashMedhi	2018

**b. Visit to Research Institute/ Industries/ Field:**

Sl. No	Name of Programme	Date	No of participants	Name of Supervisors
1	Visit to Jadavpur University and Science city, Kolkata for educational exposure of T. D. C. (Major) Students	7 to 13Feb, 2016	20	1. Dr. Dhiraj Kumar Das 2. Dr. Alok Das
2	Visit to NCERT and IIT, Delhi	From 27 <sup>th</sup> Dec., 2017 to 3 <sup>rd</sup> Jan., 2018	21	1. Dr. Dhiraj Kumar Das 2. Dr. Nabajyoti Das 3. Dr. DipankarSarmah
3	Educational tour to Shillong NEHU	23-02-2019	25	1. Dr. Nabajyoti Das 2. Dr. Alok Das 3. Dr.DipankarSarmah 4. Mr. DipumoniNath

**c. Hands on training/Workshops/ awareness programme for students of Host institute and other nearby college:**

Sl. No	Name of programmed	Duration (days)	No of participants	Beneficiaries	Name of Resource persons
1	18 Hours Training Programme on C-language (2015)	04	31	Major students of Maths and Physics	Mr. AmanurRanman, I T Faculty, NIELIT, Guwahati Dr. Alok Das, J N College
2	Workshop on "USE OF MATHEMATICA" (2016)	03	28	For own Major students	Prof. Hemanta Kumar Sarma, Dept of Mathematics, Gauhati University Mr.MridulDas,Research Scholar,G U Mr. Samir RanjanSaha



					Research Scholar, G U Dr. Nabajyoti Das
3	Workshop on “ <b>Linear Programming Problem</b> ” (2016)	02.	20	Own Major Students	Dr. Debashish Bhattacharya, Dept Mathematics, Gauhati University Dr. Dipankar Sarma,
4	Two days seminar on ‘Applications of Differential Equations’ (2016)	02	24	TDC Students of <b>Maths and Physics</b>	Dr. Dhiraj Kumar Das Dr. Nabajyoti Das J.N. College
5	7 Days Workshop on C-Programming Language (2018)	07	66	T.D.C Major Students of Mathematics & Physics	1. Mr. Ratul Sarmah, Software Engineer 2. Mr. Amanur Rahman, State Data Analyst, SBM-G, PHED 3. Dr. Nilakshi Goswami, Asstt. Professr, Dept. of Mathematics, Gauhati University
6	Summer Camp (2018)	07	57	for UG Students	Dr. (Mrs.) Chandra Rekha Mahanta, Professr, Dept. of Mathematics, Gauhati University
7	Santiram Das Memorial Lecture on “ Vedic Mathematics” organized by Assam Academy of Mathematics in association with the Department of Mathematics, J. N. College, Boko(2018)	01	96	All major Students	Dr. (Mrs.) Ranjana Choudhury, Retd. Professr, Dept. of Mathematics, Handik College, Guwahati
8	Seminar on Ramanujan Mathematics in connection with celebration of National Mathematics Day(2018)	01	45	Major Students	Dr. Dipankar Sarmah, Asstt. Professor, Dept. of Mathematics, J.N. College, Boko
9	Seminar on Solution of Differential equations: algebraically and numerically(2019)	01	48	Major Students	Mr. Dipumoni Nath, Asstt. Professor Dept. of Mathematics, J. N. College, Boko
10	Workshop on C-programming Laguage (2019)	02	30	Major Students	Dr. Alok Das Dept. of Mathematics Miss Dorothea Kalita, Faculty-PGDCA,

#### IV: Department of Physics:

##### a. Students project: ( As a part of syllabus and few of them are interdepartmental)

SN.	Title of the Project	Name of the Student	Supervisors
<b>Department of Physics</b>			
1	Designing of Power Supply Unit.(6-12 volt)	Nilim Kalita	Mr. Monoj Kr. Das (2015-16)
2	Temperature sensor using Microprocessor	Pranab Pathak	
3	Designing of Full wave Rectifier Circuit	Hrisikesh Kalita	
4	Designing of Half wave Rectifier Circuit	Haridas Mandal	
5	Physical and Mechanical Properties of <b>Rattan Cane</b> and Its Probable Utilization.	Tridip Rabha	Dr. Ranjit Baishya Dr. Habibur Rahman (2016-17)
6	A Study on Surface Tension and Viscosity of Commonly Used <b>Mustard Oils</b> in the locality.	Mustafizur Rahman	Dr. Ranjit Baishya Dr. J. P. S. Barua (2016-17)
7	A Study on Surface Tension and Viscosity of Commonly Used <b>Refined Oils</b> in the locality.	Akash Chetry	Dr. Ranjit Baishya Dr. J. P. S. Barua (2016-17)
8	Physical and Mechanical Properties of <b>Bamboo</b> and Its Probable Utilization.	Madhurya Singh Roy	Dr. Ranjit Baishya Dr. Habibur Rahman (2016-17)
9	Designing of Electronic LOGIC GATE and verifying Truth Tables.	Maidul Islam	Dr. Ranjit Baishya (2017 - 18)
10	Designing an Audio Frequency Operational Amplifier	Samim A. Ahmed	
11	Fabrication of Regulated DC Power Supply	Pallab Saud	
12	Designing a Bistable Multivibrator to Observe its Response.	Naem M. Haque	
13	Basic Concept on Spectrometer and SOP for its Smooth Handling	Samarjit Jeet Seal	Mrs. Minati Barman (2018-19)
14	Basic Concept on Capillarity and SOP for the Practical of Capillarity Tube Method	Kalpa Kirti Das	Dr. Ranjit Baishya (2018-19)

##### b. Visit to Research Institute/ Industries:

Sl. No.	Place visited	Number of students	Months
1	Science city, Kolkotta	15	October, 2016
2	Science City, Guwahati	22	10 <sup>th</sup> Feb. 2017
	University of Sc. & Tech., Meghalaya		

3	Exposure Tour to Delhi – Agra and Visited Inter University Accelerator Centre and Jamia Millia University.	12	23 <sup>rd</sup> Oct. to 29 <sup>th</sup> Oct. 2017
4	Exposure Tour to Santiniketon,	14	5-1-2019 to 11-1-2019

**c. Hands on training/Workshops/ awareness programme for students of Host institute and other nearby college:**

Sl. No	Title of Training/ workshop	Duration (Days)	Number of participants	Beneficiaries
<b>Department of Physics:</b>				
1	Workshop on Basic Electronic Circuit design (2016)	03	26	Physics Major Students of JNC, Dudhnoi College and B.P.C. College, Nagarbera
2.	Workshop on Computer Programming in C(2017)	07	16	Students of J. N. College, Boko
3.	Hands on Training for Project Preparation (Different Circuits) (2017)	05	18	Physics Major Students of JNC
4.	Workshop on C++ programming (2018)	07	50	Major Students of Physics and Mathematics
5.	Seminar on Biophysics (2018)	01	155	Faculty and Students of JNC from all Science departments.
6	Summer Camp (2018)	07	120	Faculty and Students of JNC from all Science departments.

**V: Department of Zoology**

**a. Student Project(Mandatory in the syllabus)**

**2016-17**

Sl. No	Name of the Project undertaken	Name of the Students	Name of the Supervisor
1	Study of Butterfly Diversity of Boko area in Kamrup District of Assam.	Nekibuddin Ahmed	Dr. Susanta Kr. Bhuyan
2	Values and Services of Wetland in South Kamrup Area.	Gautam Barhoi	Dr. Tapan Kr. Deka
3	Fish Processing and Preservation Techniques used by local community in greater Boko Area Kamrup District, Assam	Safiqul Islam	Mrs. Nanda Devi
4	A Study of Fish Diversity of Wetlands of Greater Boko Area, Kamrup District (Assam).	Mrinmoy Kalita	Dr. Tapan Kr. Deka

5	Study of dragonfly Diversity of Boko area in Kamrup District, Assam.	Kongkon Kalita	Dr. Susanta Kr. Bhuyan
6	Study of Different types of Fishing Gear used by used by local community in greater Boko Area Kamrup District, Assam	Bidyut Daimary	Mrs. Nanda Devi
7	Diversity of Butterfly in Boko, South Kamrup, Assam.	Chagan Boro	Dr. Tapan Kr. Deka
8	Diversity of Fish fauna in Nildoba Beel in Kamrup District of Assam.	Dharani Kalita	Dr. Susanta Kr. Bhuyan
9	Study of the Elephant and Human Conflict at Dhanubhanga, Goalpara, Assam	Dhanjit Das	Dr. Rekha Chetry
10	Diversity of Wild Edible in daily market of Dhupdhara, Goalpara District of Assam.	Rakesh Saha	Dr. Rekha Chetry Mrs. Purabi Rabha( <b>Botany</b> )
11	Study of Wetland in Boko Area	Susmita Basumatary	Dr. Tapan Kumar Deka
12	Status and Conservation of Vulture in and around Bondapara, Boko, Assam	Gayatri Nath	Dr. Rekha Chetry
13	Status and Conservation of Vulture in and around Jobepara Village, South Kamrup Assam: A case Study.	Jonali Boro	Dr. Rekha Chetry
14	A preliminary Study on diversity of Ornamental Fish Species of the Bogadoba and Dighaldoba Beel of Greater Boko Area, Boko Kamrup.	Jyotishmita Kalita	Mrs. Nanda Devi
15	A Study on Fish culture in Boko, South Kamrup.	Deepjyoti nath	Dr. Tapan Kumar Deka

### 2017-18

Sl. No	Name of the Project undertaken	Name of the Students	Name of the Supervisor
1	A Preliminary Study of Medicinal Plants used by the different Ethnic groups of Dhupdhara areas of Goalpara District, Assam to treat different domestic animal diseases.	Pallabi Biswas	Dr. Susanta Kumar Bhuyan Dr. Habibur Rahman(Botany)
2	A Preliminary Study on various types of Snails of Boko area, Kamrup, Assam	Ashish Sarkar	Dr. Tapan Kumar Deka
3	Study of Butterfly Diversity of Dhupdhara area in Goalpara District of Assam.	Pankaj Saha	Dr. Susanta Kumar Bhuyan
4	A Preliminary Study on Avifaunal Diversity of Dhupdhara area in Goalpara District of Assam.	Dhritimay Das	Dr. Rekha Chetry
5	Study of Butterfly Diversity of North Boko area in Kamrup district, Assam	Jimut Choudhury	Dr. Susanta Kumar Bhuyan
6	A Preliminary Study on Fish Diversity of Dighaldoba Beel, Boko, Assam.	Arup Choudhury	Dr. Rekha Chetry
7	Abundance and Diversity of Dragonfly	Manan Patgiri	Dr. Tapan Kumar Deka

	in West Boko area, Kamrup Distric, Assam		
8	A Preliminary Study on Butterfly Diversity of Khaliha village Kamrup, Assam.	Jinmay Tamuly	Dr. Rekha Chetry
9	A Preliminary Study on Vermicompost with the help of three different types of Earthworms.	Kankana Dutta Choudhury	Dr. Tapan Kumar Deka
10	Study of Spider Diversity of North Boko area of Kamrup District, Assam.	Rahul Goyari	Dr. Susanta Kumar Bhuyan
11	Study of Fishing Gears and its efficiency.	Monalisha Kachari	Dr. Tapan Kumar Deka
12	A Study on Current Status in Ericulture in no.2 Dilinga village, Boko, Kamrup, Assam	Jahnavee Rajbangshi	Dr. Rekha Chetry
13	A Preliminary Study on Vegetable Pests of North Boko areas of Kamrup District, Assam.	Gobinda Das	Dr. Susanta Kumar Bhuyan

**Year 2018 – 2019:**

Sl. No	Name of the Project undertaken	Name of the Students	Name of the Supervisor
1	A Preliminary Study on Spider Diversity in greater Boko area in Kamrup District of Assam.	Abhijit Boro	Dr. Susanta Kumar Bhuyan
2	Study of Dust Pollution in Boko Area, South Kamrup, Assam.	Muzibul Hoque	Dr. Tapan Kumar Deka
3	A Preliminary Study on Diversity of Moths in Boko Kamrup, Assam.	Hiyashree Das	Dr. Rekha Chetry
4	A Study on Diversity of Butterfly Dhupdhara area in Goalpara District of Assam.	Nayan Moni Kalita	Nanda Devi
5	Study of Dust Pollution in Borapara of Boko.	Pinky Pareek	Dr. Tapan Kumar Deka
6	A Study on Butterfly Diversity of Sijubari Reserve Forest in Boko, Kamrup, Assam.	Mridu Bhushan Rabha	Dr. Rekha Chetry
7	A Preliminary Study on Diversity of Fish in Boko, Kamrup, Assam.	Bhanita Kalita	Nanda Devi
8	A Preliminary Study on Spider Diversity in Loharghat Reserve Forest in South Kamrup of Assam.	Bivarani Rabha	Dr. Susanta Kumar Bhuyan
9	Study of Dust Pollution in Jarapara area of South Kamrup.	Gitanjali Rabha	Dr. Tapan Kumar Deka
10	Study on Diversity of Butterfly in Boko areas of South Kamrup, Assam.	Mriduljyoti Kalita	Dr. Susanta Kumar Bhuyan
11	A Preliminary Study on Diversity of Butterfly in Rajapara Village in Boko, Kamrup, Assam.	Harjit Boro	Dr. Rekha Chetry

12	A Study on Diversity of Spider in Bamunigaon Forest area of Kamrup District.	Anjana Boro	Dr. Susanta Kumar Bhuyan
13	A Preliminary Study on different types of Fishing Gears used in Fishing in Greater Boko area of Kamrup District, Assam.	Jyotiprakash Boro	Nanda Devi

**b. Visit to Research Institute/ Industries/ Field:**

Sl. No	Place visited	No. of Student	Date
1.	Dibru-Saikhowa National Park, Assam	40	Feb, 2016
2.	Aquaculture and Biodiversity Centre, Department of Zoology, Gauhati University	25	June, 2016
3.	Field Visit to Pobitora Wild Life Sanctuary	50	18/2/2017
4.	Sophisticated Analytical Instrument Facility (SAIF) Northeastern Hill University, Shillong	18	30/10/2017.
5.	Institute of Advance Studies in Science and Technology (IASST), Boragaon, Guwahati, Assam.	15	27 / 02 /2018.
6	Bio-Tech Park, Guwahati.	15	11.10.2018
7	Aquaculture and Biodiversity Centre, Department of Zoology, Gauhati University	15	11.10.2018
8	Central Inland Fishery Research Institute, Barrackpore, West Bengal	15	16.01.2019
9	Zoological Survey of India, Kolkata	15	17.01.2019
10	Field visit to Fish landing & Marketing Centre, Digha, WB	15	19.01.2019
11	Central Sericulture Research Station, Boko.	20	07.02.2019

**c. Hands on training/Workshops/ awareness programme for students of Host institute and other nearby college:**

Sl. No.	Date	Resource Person	Topic	No of students/ Beneficiaries
1	16 <sup>th</sup> & 17 <sup>th</sup> August, 2017	Dr. Susanta Kumar Bhuyan, Associate Professot & HOD Department of Zoology	Hands on Training on Estimation of protein & Glucose through Spectrophotometer	26 12 students from Botany Department
2	16.12.17 and 18.12.17	Mr. Amanur Rahman, M.Tech. CSE Block MIS Executive BMMU Pakabetbari Development Block Barpeta, Assam	Operating System, DOS, WINDOWS and UNIX.	44 + 07 = 51 (07 Student from Bikali College, Dhupdhara
3	19.12.17 and 20.12.17	Mr. Dawarmonii Ojha Application Engineer Airport Operations	C++ Programming Language	46 + 07 = 53 (07 Student from Bikali College,

		Control centre LGBI Airport, Guwahati		Dhupdhara
4	21.12.17 And 22.12.17	Mr. Raju Seel Faculty, Dept. of PGDCA J. C. College, Boko	Computer aided techniques for data presentation and data analysis	61 + 07 = 68 (07 Student from Bikali College, Dhupdhara, 15 student from 1 <sup>st</sup> Sem. of PGDCA
5	23.02.2018	Dr. Susanta Kumar Bhuyan, Associate Professor & HOD Department of Zoology	Hands on training on Histological Preparation of Chick embryo	14 students of host institute
6	20.02.2018 And 21.02.2018	Mr. Niranjan Bhagaboti Technical Officer IASST, Boragaon Guwahati, Assam.	Application of Statistics in Biological Science	44students of host institute
7	14 <sup>th</sup> & 16 <sup>th</sup> August, 2018	Dr. Susanta Kumar Bhuyan, Associate Professor & HOD Department of Zoology	Hands on Training on Histological Slide preparation	28
8	21.02.2019	Dr. S. A. S. Rahman, Scientist – D and Head Central Sericulture Research Station, Boko	Awareness programme cum Workshop on Muga Culture & Its Impact on Rural Economy	78 35 students from Botany & Physics Department
9	09.09.2019	Dr. Manash Das, Assistant Professor, Department of Zoology, Gauhati University	Foldscope: It's Principle and Application	75 25 students from Botany Department
10	1 <sup>st</sup> to 5 <sup>th</sup> April, 2019	Mr. Raju Seel Faculty, Dept. of PGDCA J. C. College, Boko	Operating System DOS, WINDOWS, UNIX, Computer aided techniques for data presentation and data analysis	28 Zoology

#### 6. Faculty profile:

##### a. Internal faculty trained at different institutions for skill improvement:

Sl no	Name of the Faculty	Name of the Course/ Workshop/ Training	Institution/ University
<b>Department of Botany:</b>			
1	Dr. Tapan Dutta	Hands on Training on Bioinformatics	NIELIT, Guwahati
		STC on Research Methodology	NEHU, Shillong
		Workshop on Research Based Pedagogy Technique	IISER, Pune

		Workshop on Capacity building in grant writing skill and effective management of Intellectual property right in Biotechnology by universities and research institutions in the NE region.	CVSc, Khanapara sponsored by DBT and Organised by BCIL
2	Dr. Habibur Rahman	STC on disaster Management	North Bengal University, W B
3	Mrs. Purabi Rabha	Hands on Training on Bioinformatics	NIELIT, Guwahati
		STC on Research Methodology	NEHU, Shillong
4	Mr. Pinaki Kumar Rabha	Hands on Training on Bioinformatics	NIELIT, Guwahati
		STC on Research Methodology	NEHU, Shillong
		Workshop cum Training on Molecular Biology & Bioinformatics	USTM, Meghalaya
<b>Department of Chemistry:</b>			
5	Dr Apurba Kr Goswami	STC on disaster Management	North Bengal University, W B
6	Dr Jyoti P Sarma Baruah	STC on Computer Application	Bardwaman University, W B
7	Dr Nuruddin Ahmed	STC on disaster Management	North Bengal University, W B
<b>Department of Mathematics:</b>			
8	Dr. Dhiraj Kumar Das	STC on 'Disaster Management'	North Bangle University, WB
		Workshop on Research Based Pedagogy Technique	IISER, Pune
9	Dr. Alok Das	STC on 'Disaster Management'	North Bangle University, WB
10	Dr. Nabajyoti Das	Teachers Enrichment Workshop	IIT, Guwahati
		STC on 'Disaster Management'	HRDC, Gauhati University,
11	Dr. Dipankar Sarma	STC on 'Remote sensing and GIS'	Burdwan University, WB
		STC on 'Students Counseling and Guidance'	HRDC, Burdwan University, WB
		Teachers Enrichment Workshop	IIT, Guwahati
<b>Department of Physics:</b>			
12	Mr. Monoj Kumar Das	STC on disaster Management	North Bengal University, W B
13	Dr. Ranjit Baishya	STC on 'Remote sensing and GIS'	Burdawan University, WB
14	Mrs. Minati Barman	Research Methodology	NEHU, Shillong
<b>Department of Zoology:</b>			
15	Dr. Tapan Kumar Deka	STC on disaster Management	North Bengal University, W B



		International Workshop and Conference on Scenarios and Models of Biodiversity and Ecosystem Services	Centre for Economic and Social Studies, Hyderabad
16	Dr. Susanta Kumar Bhuyan	STC on disaster Management	North Bengal University, W B
		Integrated Approach in Zoological Research, organized by Dept. of Zoology, Gauhati University and ZSA.	Gauhati University
17	Mrs Nanda Devi	Research Methodology	NEHU, Shillong
18	Dr. Rekha Chetry	Hands on Training on Advanced Practicals in Zoology	Gauhati University
		Science & Technology for Human Welfare. Integrated Approach in Zoological Research, organized by Dept. of Zoology, Gauhati University and ZSA.	IASST, Guwahati.  Gauhati University.

**(Organised by the Programme Coordinator)**

**b. Internal faculty/ laboratory staff trained at host for skill improvement:**

Sl. no	Name of the programme	Duration	No. of Participants	Beneficiaries
1	SPSS and its application in teaching and research	05 days	25	Faculty members of All participating departments (2016)
2	Tools and techniques in Molecular Biology	03	15	Faculty members (2017)
3	Workshop on Safety measures and Maintenance of Science Laboratory	01	10	Laboratory assistants and Bearers (2017)
4	Computer Basics and use of Office Automation	02	15	Office staff (Permanent & Contractual) (2018)

**c. Awareness generation programme/seminars/exhibition/outreach programme conducted:**

Sl no	Name of the programme	Date	Name of the institution	Target group
1	Make in India: Science and Technology Driven Innovation	Feb, 2016	J.N. College, Boko	Degree students and Faculty members
2.	Implementation and Benefits of DBT Star College Scheme	Feb, 2016	J.N. College, Boko	Degree students and Faculty members

3	Food and its related Science	March, 2016	Don Bosco School, Boko	Students of 11 <sup>th</sup> and 12 <sup>th</sup>
4	Illegal trade of Wildlife: Causes and protection”	June, 2016	J.N. College, Boko	Degree Science students and Faculty members
5	Night Sky Observation and Popular talk on “Astronomy and Environment”.	Nov, 2016	J.N. College, Boko	Degree Science students and Faculty members
6	Green Chemistry	Feb, 2017	J.N. College, Boko	Degree students and Faculty members
7	Biotechnology : Scope and Application	March, 2017	Rangjuli H.S. School	11 <sup>th</sup> and 12 <sup>th</sup> students
8	Women health: Food and Nutrition, special reference to rural women	Feb, 2018	J.N. College, Boko	Degree students and Faculty members
9	Awareness programme on Women Cancer	March, 2018	Jarapara Village	Women self-help groups.
10	<b>“Polymer – A multi-faceted material and Environment”</b> Dr. Harekrishna Deka, Centre In-Charge, CIPET	June, 5 <sup>th</sup> , 2018	J.N. College, Boko	Degree students and Faculty members
11	<b>“Career Opportunities in Bioscience”.</b> Dr. Prabodh Borah, Professor in Molecular Biology, CVSc, Khanapara	29 <sup>th</sup> June, 2018	J.N. College	Degree students and Faculty members
12	<b>“The Art of Becoming a Scientist: Journey of a Lifetime”.</b> Delivered by: <b>Prof. Uday Kishore, Brunel University, London.</b>	13 <sup>th</sup> September, 2018	J.N. College, Boko	Research Scholars, Degree students and Faculty members
13	Student Exchange Programe with nearby Bikali College	10 <sup>th</sup> October, 2018	J.N. College, Boko	Degree Major Students.
14	“Awareness and Prevention of Communicable diseases”,	26 <sup>th</sup> Feb, 2019	Jarapara Village	Village Women and self-help groups
15	Outreach Programme on Genetic Engineering and Plant Tissue Culture	20 <sup>th</sup> March, 2019	Dudhnoi College	UG Students and Faculty Members

- d. Organized Science Model making competition, extempore speech competition, Spot drawing competition and nature photography competition among students of different colleges on the occasion of **National Science Day, World Environment Day, National Women’s day etc. every year.**

- e. **Organised Chemistry and Mathematics Olympiad** every year.

**f. Student exchange programme:**

Topic	Date	Venue	Beneficiaries
Basic Molecular Techniques	March, 2016	B.P. Chaliha College	Students of J.N College and B.P. Chaliha College
Bioinformatics for Beginners	22 March, 2017	Dudhnoi College	Students of Dudhnoi college and J.N. College
Basic Techniques in Molecular Biology and Bioinformatics	22 Jan, 2018	B.P. Chaliha College	Students of J.N. College and B.P, Chaliha College college
Molecular Techniques	March, 2018	J.N. College	Students of B.P, Chaliha College, J.N. College and Goalpara College
Basic Instrumentation	10 <sup>th</sup> Oct, 2018	J.N. College	B.Sc. Major Student from nearby Bikali College

**f. Guest Faculty Invited by Different Participating Departments:**

Sl.No	Department	Name of the Invited Person ,Designation and Address	Topic of the Talk	Duration
<b>1</b>	<b>Botany</b>	Dr. Nilakshi Devi, Professor, Department of Botany, Gauhati University	Preparation and Use of Herbarium Specimen and their Conservation	<b>01 Day (2016)</b>
		Prof. Probodh Borah, CVSc. Khanapara and Coordinator, State Biotech Hub, Assam	DNA Extraction and PCR techniques.	<b>01 (2018)</b>
		Prof. Bhaben Tanti, Department of Botany, Gauhati University	Karyotyping and Basic Instrumentation	<b>01 (2018)</b>
		Dr. Pranjan Barman, Assistant Professor, Dept. of Biotechnology, Gauhati University	Protein: Structure and Function	<b>01 (2019)</b>
<b>2</b>	<b>Chemistry</b>	Dr. PradipKumar Bhattacharyya, Associate Professor, Department of Chemistry, AryaVidyapeethCollege,Guwahati.	Basics Of Quantum Chemistry	<b>01 Day (2016)</b>
		Prof Birinchi Kr Das, Professor, Department of Chemistry, GU	X – Ray Crystallography	<b>01 (2016)</b>

		Dr Sunit Barua, Assistant Professor, Department of Chemistry, GU	Spectroscopic Application in UG Level	<b>01 (2017)</b>
		Prof Dilip Kr Kakati Professor, Department of Chemistry, GU	Recent trends in Polymer Science	<b>01 (2017)</b>
		Dr Pannalal Goswami Ex Faculty member Dept of Chemistry, Cotton College	Lecture and Demonstration on Common practical Application of Popular Chemistry in daily life	<b>01 (2017)</b>
		Dr Diganta Kr Das Professor, Dept of Chemistry Gauhati University	No Metal No Life – More Metal No Life	<b>01 (2018)</b>
		Dr Dibakar Ch Deka, Professor Dept of Chemistry Gauhati University	Popular Talk on “NMR and its Application”	<b>01 (2018)</b>
		Dr Abani Kr Misra, Retd. Professor, Dept of Chemistry Gauhati University	IR and Raman Spectroscopy :Principles and Chemical Applications	<b>01 (2019)</b>
<b>3</b>	<b>Mathematics</b>	Prof. Kripasindhu Chaudhury, Department of Mathematics, Jadavpur University, Kolkata	Development of Mathematical Concepts in Ancient India: Some Historical Aspects	<b>01 (2016)</b>
		Dr. Hemanta Kumar Sharma, Professor, Department of Mathematics, Gauhati University	How simple Mathematics can help to formulate and solve real problem of current research in the field of Physical and social Science.	<b>01 day (2017)</b>
		Dr. Swadhin Pattanayak, Ex. Director, IMS, Bhubaneswar	Invitation to Mathematics	<b>01 (2017)</b>
		Dr Swaroop Nandan Bora Professor, IITG	Invitation to Mathematics	<b>01 (2017)</b>
		Dr. Tarini Dutta, Rtd.. Professor, Department of Mathematics Gauhati University	Beauty of Mathematics and its application in the real world.	<b>01 (2018)</b>
		Dr. (Mrs.) Ranjana Choudhury, Retd. Professr, Dept. of Mathematics, Handik College, Guwahati	Vaidic Mathematics	<b>01 (2018)</b>
		Dr. (Mrs.) Chandra Rekha Mahanta, Professr, Dept. of Mathematics, Gauhati University	Relativity	<b>01 (2018)</b>

<b>4</b>	<b>Physics</b>	Dr. Ranjit Barman, Head , S& T Division, ASTEC, Guwahati	Intellectual Property Right	<b>01 day (2016)</b>
		Dr. Utpal Sarma, Associate Professor, Department of Instrumentation, Gauhati University	Function and Application of Op – Amp, RC Coupled Amplifier	<b>01 Day (2017)</b>
		Dr. Banti Tiru, Associate Professor, Department of Physics, Gauhati University	Working principle of regulated Power Supply and Multi vibrators	<b>01 (2017)</b>
		Prof. A. K. Gohainbaruah, Eminent Scientist and HoD, Physics Deptt. Gauhati University	Seminar on Biophysics “LIGHT OF FIRE FLY” (Inter Departmental)	<b>01 (2018)</b>
		Dr. A. M. P. Ahmed, Associate Professor, Cotton University	NANO SCIENCE: Nano the Smallest Big Thing.	<b>01 (2018)</b>
		Mr. Manash Pratim Sarma, Office Secretary; Pragjyotish Amateur Astronomers’ Association, Assam	Astronomical Lecture with Demonstration and Solar Observation	<b>01 (2019)</b>
<b>5</b>	<b>Zoology</b>	Dr. Dhiren Kumar Sharma, Former Professor, Department of Zoology, Gauhati University	Fundamentals of Molecular Biology	<b>01 day (2016)</b>
		Dr. J. C. Kalita Professor Department of Zoology, Gauhati University	Frontier research areas in Bioscience	<b>01 day (2017)</b>
		Dr. Uma Dutta, Associate professor, Cotton University, Guwahati, Assam	Xenobiotics	<b>01 day (2018)</b>
		Dr. Manash Das, Assistant Professor, Department of Zoology, Gauhati University	Microscope: Principle and Application.	<b>01 day (2019)</b>
		Dr. M. Deka, Scientist – C, Central Sericulture Research Station, Boko.	Diseases of Silk Worm: Prevention and Control.	<b>01 day (2019)</b>

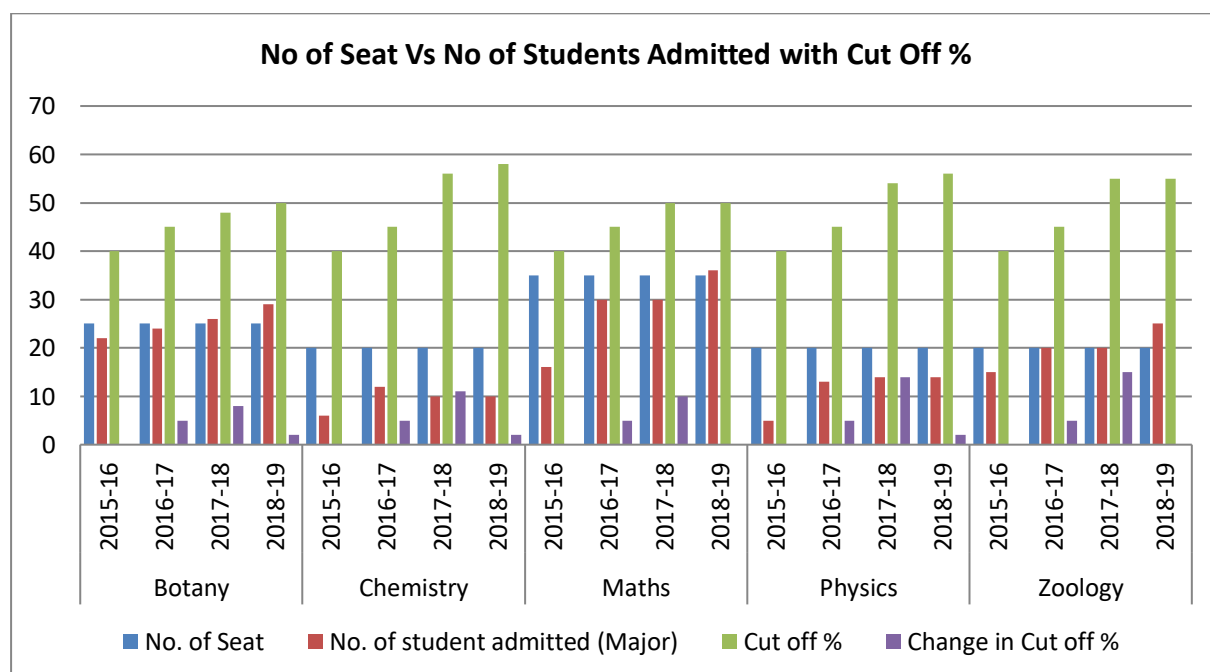
□□□ List of new Practical / Demonstration:

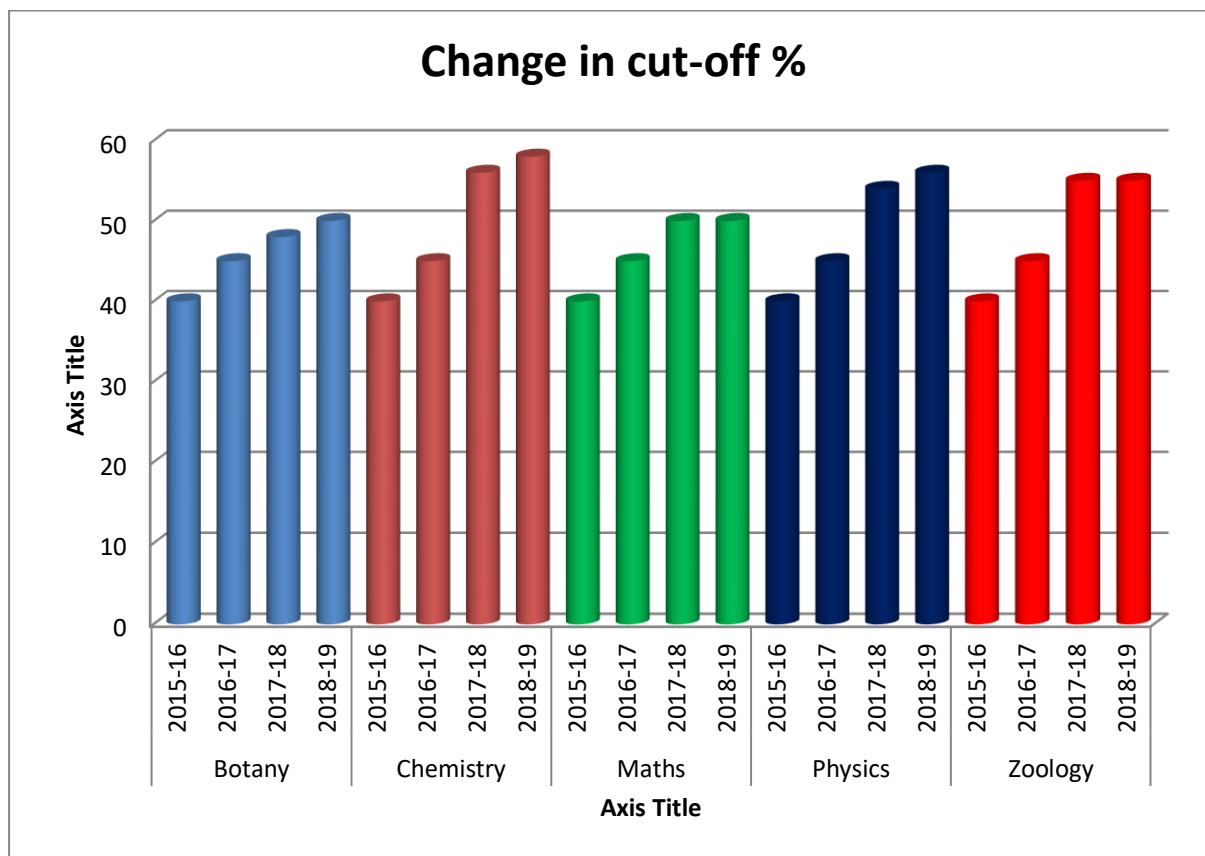
Sl. No	Department	New Practical Introduced	Demonstration Turns to Practical
1	Botany	i. Sequence alignment ii. Construction of Restriction map and phylogenetic tree iii. Homology Modeling through the BLAST (For Genes) iv. Sequence retrieval from databases. v. Study of chromosomal aberration vi. Computation of TCL, ACL.	a. Micro propagation b. Microbial Culture c. Isolation of fungal pathogens from diseased plant parts d. Isolation of <i>Rhizobium</i> from root nodules,
2	Chemistry	i. Estimation of glucose by titration with Fehling's solution. ii. To determine the amount of $\text{Cu}^{2+}$ and $\text{Fe}^{3+}$ present in a given mixture iii. To determine the critical solution temperature and composition at the CST for phenol-water system iv. Quality assessment of water and Heavy metal analysis v. Measurement of Hardness of water using EDTA – Complexometric Method vi. Polarimetric Estimation of Glucose vii. Conductometric titration of Acid-Base viii. Colorimetric Estimation of metal ions ix. Chromatographic separation cum identification of plant pigments	
3	Mathematics	i. c-programming language (extended) ii) Use of MATHEMATICA	
4	Physics	i) Study of variation of absorption of light with concentration of an organic solution using spectrometer. ii) Application of C- Programming iii) Study Ripple factor of Electronic rectifier circuit and use of L and $\pi$ section Filter.	1. Characterization of Thin films by chemical deposition 2. Design of power supply (6-12 v).
5	Zoology	i) Study of Salivary Gland chromosome in Chironomous Larva ii) Hemoglobin estimation, iii) Study and staining Technique of Nucleolus. iv) Estimation of Protein. v) Estimation of Glucose. vi) RBC and WBC Counting vii) Estimation of Dissolved Oxygen	1. Whole mount preparation of Chick embryo 2. Estimation of protein and Glucose through Spectrophotometer

□ □ □ Impact of DBT support (5 salient achievements)

a. Changes in Cut off % for admission:

Department	Year	No. of Seat	No. of student admitted(Major)	Cut off %	Change in Cut off %
Botany	2015-16	25	22	40	00
	2016-17	25	24	45	05
	2017-18	25	26	48	03
	2018-19	25	29	50	02
Chemistry	2015-16	20	6	40	00
	2016-17	20	12	45	05
	2017-18	20	10	56	11
	2018-19	20	10	58	02
Maths	2015-16	35	16	40	00
	2016-17	35	30	45	05
	2017-18	35	30	50	10
	2018-19	35	36	50	00
Physics	2015-16	20	5	40	00
	2016-17	20	13	45	05
	2017-18	20	14	54	14
	2018-19	20	14	56	02
Zoology	2015-16	20	15	40	00
	2016-17	20	20	45	05
	2017-18	20	20	55	15
	2018-19	20	20	55	15



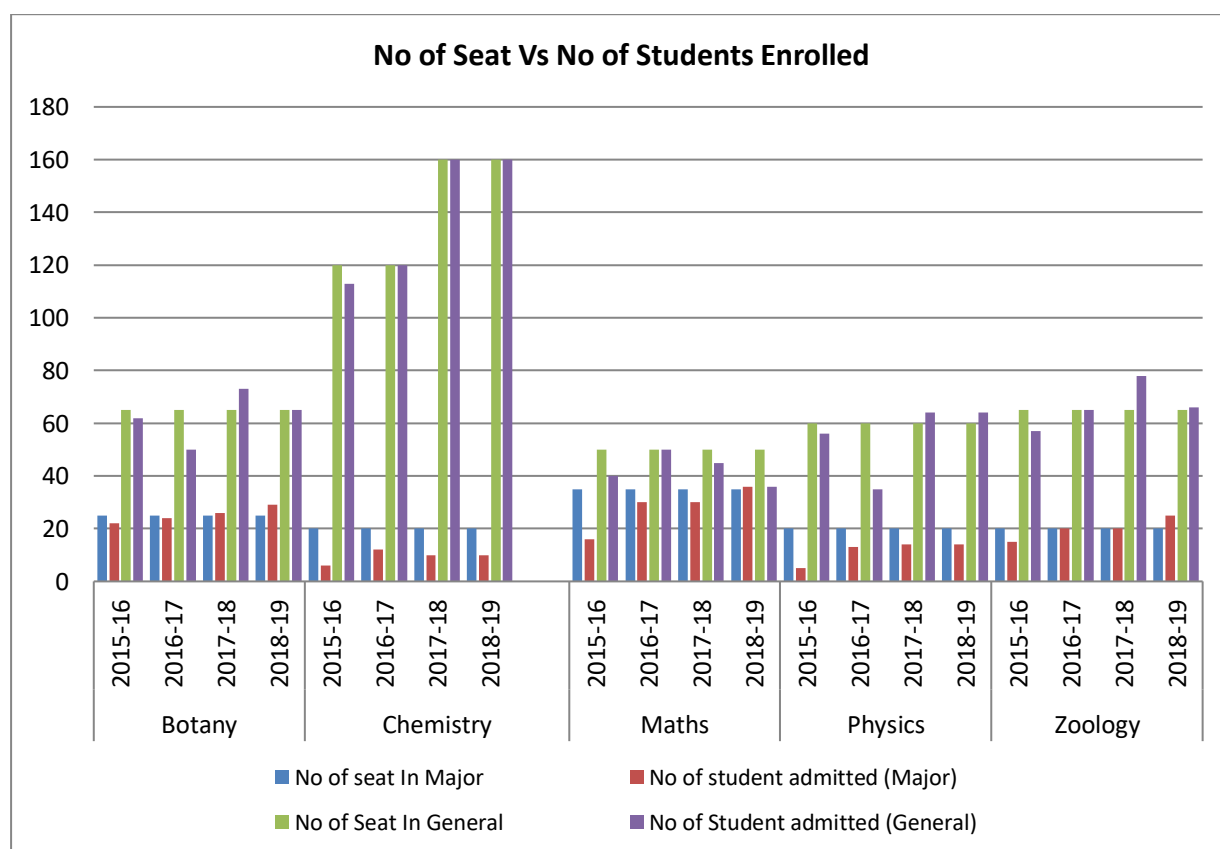


**b. Higher enrollment in science courses (no. of seats vs filling up of seats):**

Department	Year	No of seat In Major	No of student admitted (Major)	No of Seat In General	No of Student admitted (General)
Botany	2015-16	25	22	65	62
	2016-17	25	24	65	50
	2017-18	25	26	65	73
	2018-19	25	29	65	65
Chemistry	2015-16	20	6	120	113
	2016-17	20	12	120	120
	2017-18	20	10	160	160
	2018-19	20	10	160	160

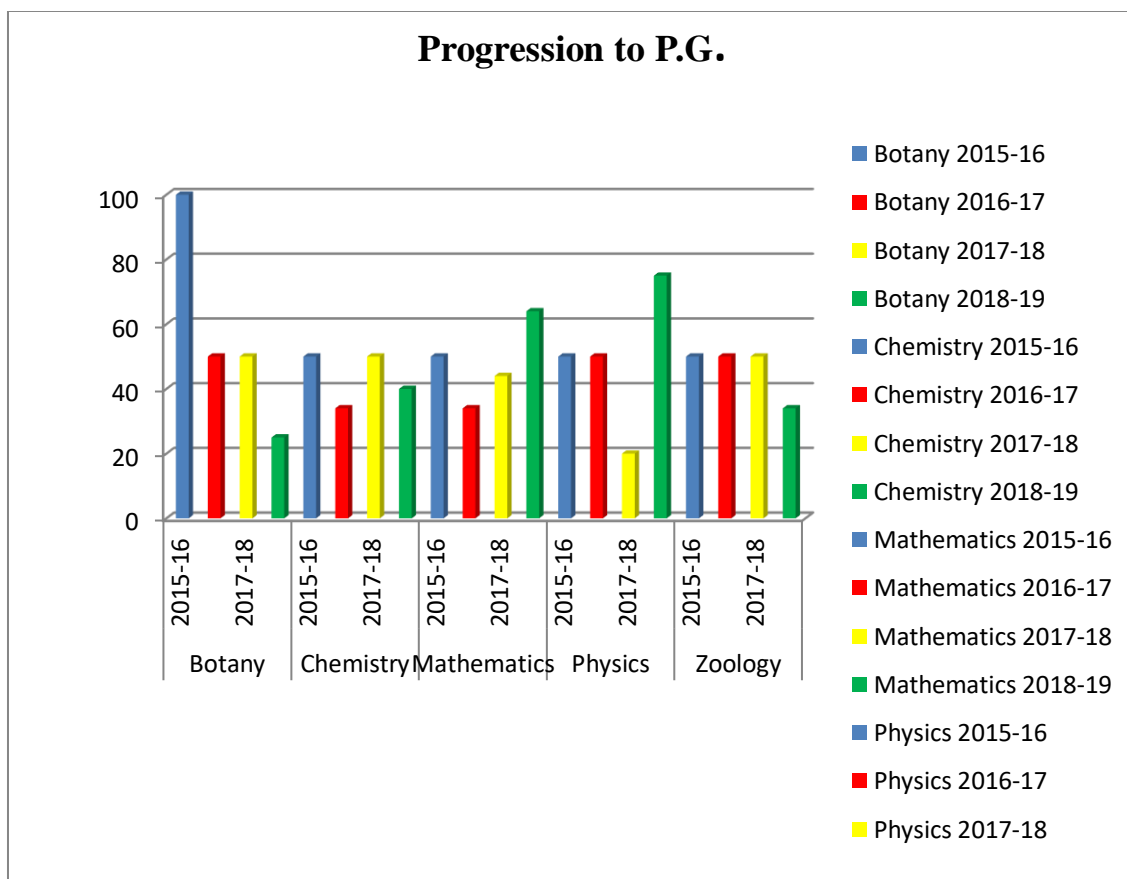


Maths	2015-16	35	16	50	40
	2016-17	35	30	50	50
	2017-18	35	30	50	45
	2018-19	35	36	50	36
Physics	2015-16	20	5	60	56
	2016-17	20	13	60	35
	2017-18	20	14	60	64
	2018-19	20	14	60	64
Zoology	2015-16	20	15	65	57
	2016-17	20	20	65	65
	2017-18	20	20	65	78
	2018-19	20	25	65	66



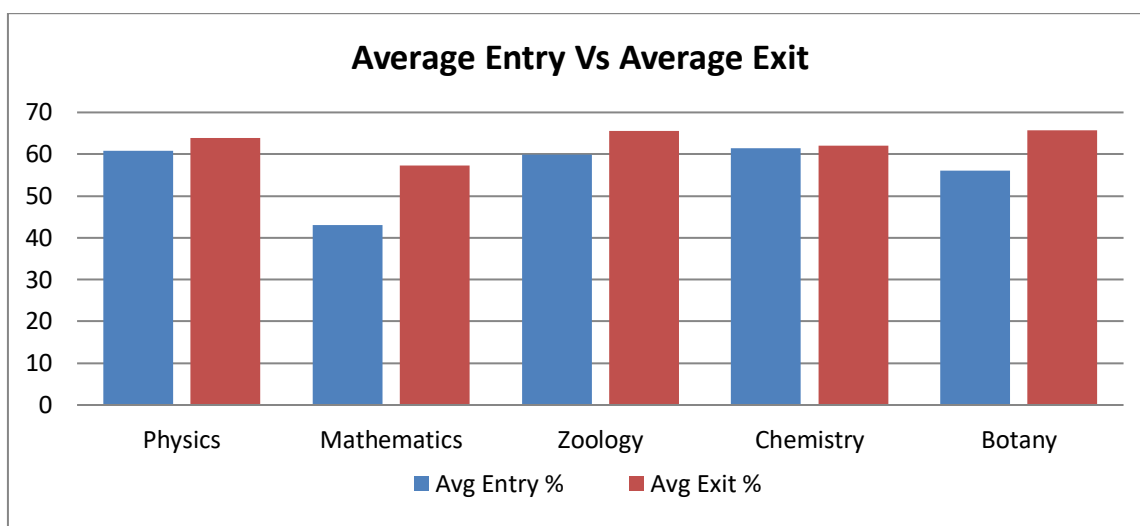
**c. Higher % of admission in PG courses:**

Department	Year	Number of student admitted in PG courses(%)
<b>Botany</b>	2015-16	100
	2016-17	50
	2017-18	50
	2018-19	25( Some of them admitted in B. Pharm, LLB, B.Ed, PGDCA etc.)
<b>Chemistry</b>	2015-16	50
	2016-17	34
	2017-18	50
	2018-19	40
<b>Mathematics</b>	2015-16	50
	2016-17	34
	2017-18	44
	2018-19	64
<b>Physics</b>	2015-16	50
	2016-17	50
	2017-18	20
	2018-19	75
<b>Zoology</b>	2015-16	50
	2016-17	50
	2017-18	50
	2018-19	34



**d. Average % of Entry at Ist Sem. and Average % of Exit at final year :**

Department	Avg Entry %	Avg Exit %
Physics	60.83	63.83
Mathematics	43.01	57.26
Zoology	59.85	65.56
Chemistry	61.47	61.97
Botany	56	65.76



**e. Student outstanding achievements:**

Certificate for participation in MADHABA MATHEMATICS competition, 2017 organized by IIT, Bumbai	Sri AkashKalita	07-01-2017
Certificate for participation in MADHABA MATHEMATICS competition, 2017 organized by IIT, Bumbai	Sri Ripunjoy Choudhury	07-01-2017
Certificate for participation in MADHABA MATHEMATICS competition, 2017 organized by IIT, Bumbai	Miss Arti Kumari Shah	07-01-2017
Certificate for joining in the “TraingingProgramme in Mathematics”, organized by the Dept. of Mathematics, IIT Guwahati	Sri Akash Kalita	From 3 to 14 July, 2017
Certificate for participation in MADHABA MATHEMATICS competition, 2018 organized by IIT, Bumbai	Sri Akash Kalita	08-01-2018
Certificate for participation in MADHABA MATHEMATICS competition, 2018 organized by IIT, Bumbai	Sri Nobin Daimary	08-01-2018
Qualified JAM 2019	Sri AkashKalita	18-03-2019
Qualified JAM 2019	Sri NobinDaimary	18-03-2019

**f. Other relevant information:**

- i. Gauhati University will introduce CBCS from this session and new optional / skill papers will be introduced. Hence all science departments will have to incorporate new practical in their curriculum and this DBT grant will help a lot to all participating departments to implement CBCS in full spirit.
- ii. After receiving the Star College grant all participating science departments have upgraded their laboratories up to a standard and because of which department of mathematics has got the permission from GU to open PG courses in 2016 with 20 seats and started the first batch from the session 2016-17.
- iii. Department of Zoology and Botany have applied for permission to open PG courses under GU and preliminary work has been in progress.
- iv. Department of botany has applied to Gauhati University for recognition of its lab for Ph. D. work and shortly GU team will visit for inspection.
- v. The CIF developed through star college and other DBT grant has been helping different Science departments of the college and research scholars and faculty members of nearby institutions.
- vi. The facilities created through the grant has also help the student under certificate course in Mushroom Cultivation and diploma course in Food processing technology and certificate course for Floriculturist under UGC community college scheme..
- vii. All participatory departments have been working on preparation of SOPs/Laboratory manuals and e- learning materials for their own departments. Department of Chemistry and Botany have already prepared some e lectures and uploaded in the college website.
- viii. **J.N. College has contributed four protocols to the e-SOPsand lab manual prepared by Sri Venkateshswar College and sponsored by DBT.**
- ix. Science departments have initiated the tutorial group concept among the major students to monitor the academic as well as personal problems of the students.
- x. A mentor group is formed with the representatives of the entire science department for popularizing basic science through outreach programme and awareness generation on communicable and life killing diseases among rural masses.
- xi. Three Faculty members were attended the **Foldscope Workshop**organized by DBT in association with State Biotech Hub, Assam at Guwahati in January 2016.

- xii. Another two members also attended the Workshop on **Research Based Pedagogical Tools** organised by DBT at IISER, Pune in March, 2016
- xiii. Two faculty members have attended the **NSTC-2018** at Indira Gandhi Pratisthan, Lucknow organized by DBT.
- xiv. Department of Physics has developed the following lab manuals and SOPs....
  - a. Laboratory Manual for Basic Electronic Circuit Design.
  - b. Manual for Computer Programming in C.
  - c. SOP for the Q factor of a series Resonance Circuit containing L, C and R

Submitted by:



**(Dr. Tapan Dutta)**

Programme Coordinator

DBT Star College, Scheme

J.N. College, Boko

Kamrup, Assam

Date: 18.04.2019



**Some Snapshots of the different departmental activities under Star College Scheme:  
(2018-19)**

**Department of Botany**

**Guwahati Biotech Park Visit,**



**Horticulture Station, Kahikuchi:**





**Student Exchange Program:****Institutional Visit (Shantiniketan):****Hans-on-training basic bioinformatics/ Microbial techniques/ Chromatography:**



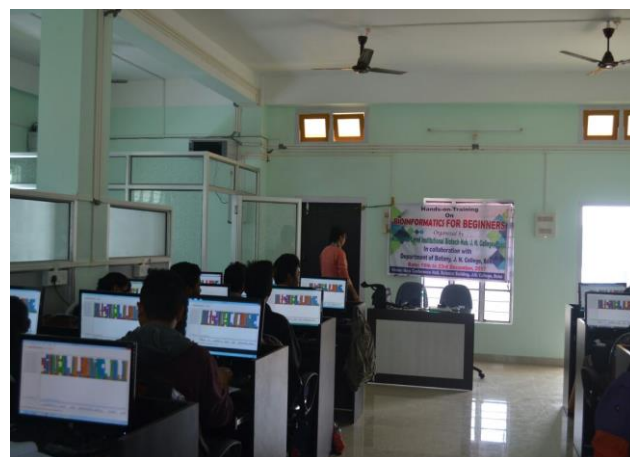
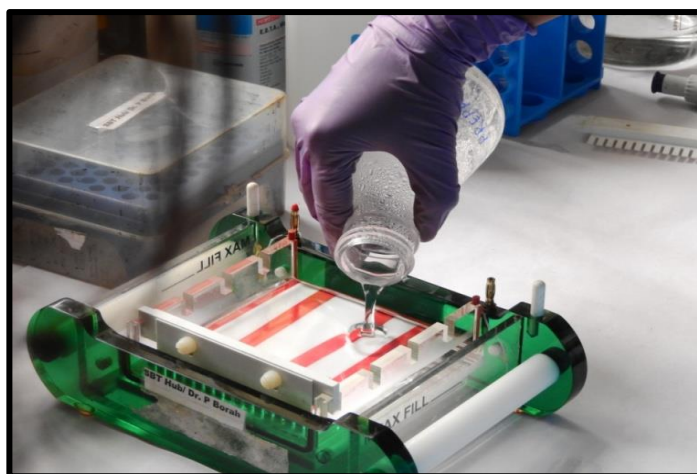
### Summer Camp:



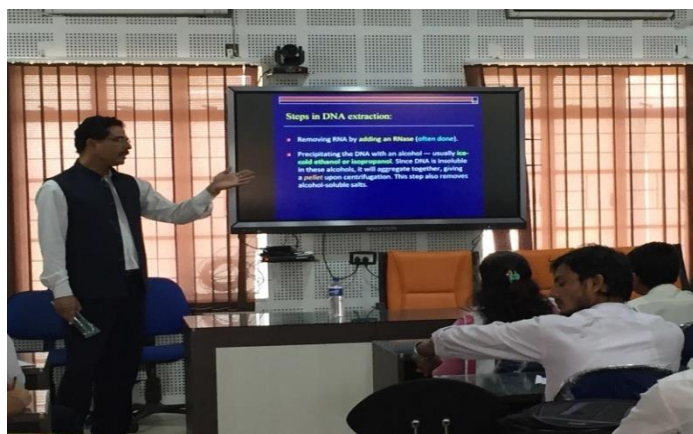
### Outreach program :













## Department of Chemistry(2018-19)

### Workshop on “Chromatography & its application”



### Seminar on “IR and Raman Spectroscopy: Principles and Chemical Application”







### **Popular talk on “The art of becoming a scientist: Journey of a lifetime”**



### **Educational trip to Gangtok and Sikkim Manipal University**



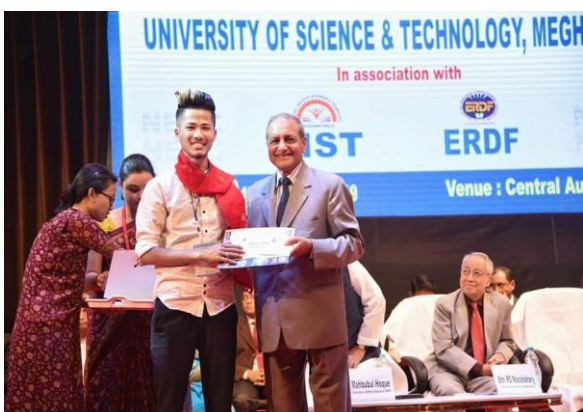




**Summer camp on “Learning on Basic Science”**



**Participation in “6<sup>th</sup> North East Graduate Congress” at USTM**





## Department of Mathematics(2018-19)

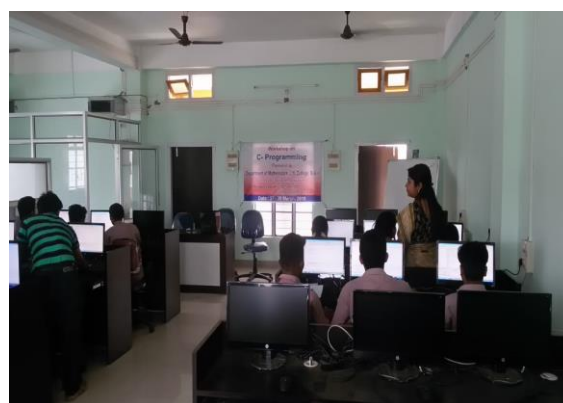
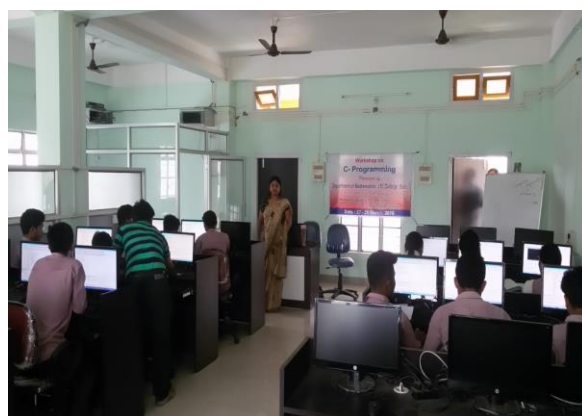
### Seminar on “Ramanujan Mathematics”



### Seminar on “Solution of Differential Equations: Algebraically and Numerically”



### Workshop on “C-Programming Language”



## Department of Physics(2018-19)

### Programme on “Astronomical Lecture with demonstration and solar observation”



### Workshop on “C-Programming Language”





## Department of Zoology(2018-19)

### Aquaculture & Biodiversity Centre Visit:



### Biotech Park Visit:



### Guest Lecture Photo:





### Hands on Training on Microtomy:



### Student Seminar:



### Visit to ZSI:





### Visit to CIFRI:



### Visit to Central Sericulture Research Station:



### Visit to Fish Landing & Marketing Centre Digha:







### Workshop on Foldscope:



### Workshop on Sericulture:







### **Computer Training:**



## **Snap shots of the Inter departmental Programmes organised by the Programme Coordinator:**

**(2018-19)**

### **a. Popular Talk/ Awareness programme:**



**Prof. Uday Kishore of Brunel University , London**



**Dr. Harekrishna Deka,, CIPET**



**Prof. Probodh Bora, CVSc. Khanapara**



**Dr. Mohitosh Benerjee, SDM & HO, Boko**

**b. Out-reach / Student exchange Programme:**



**Genetic Engineering and Plant Tissue Culture  
at Dudhnoi College**



**Basic Biological Instrumentation  
With students of Bikali College**

**c. Students' Science Exhibition:**



Submitted by:

*Tapan Dutta*

**(Dr. Tapan Dutta)**  
Programme Coordinator  
DBT Star College, Scheme  
J.N. College, Boko  
Kamrup, Assam

## Summary of the Programmes Conducted during 2020 - 2022

Sl. No	Name of the Programmes Conducted	Conducted by						Total
		Coordinator	Phy	Chem	Zoo	Bot	Moths	
1	Celebration of Important Events	03					01	04
2	Participation in the Programme	02	01	01	01	01	01	07
3	Mentor Programme	01						01
4	Training Conducted/ Received	01	01	02	01	01	01	07
5	Seminar	02		04	03			09
6	Workshop/ Hands on Training		02	04	01	04	04	15
7	Ad Laboratory/ Field Visit	01	01	02	01	04		09
8	Webinar Conducted	01	04	03	02	04	01	15
9	Student Exchange Programme					01		01
10	Interdisciplinary Programmes			03		03		06
11	Collaboration Programme					03		03
12	Collaboration with Farm/ Indus.		02			01		03
13	Scientific/ Popular Talk			01		02		03
14	New Practical Introduced			03	01	05		09
15	Awareness Programme		02					02
16	Short Term Course						01	01
	Total Programmes	11	13	23	10	29	09	95

### Detailed of the Programmes Conducted under DBT Star Status Scheme:

Sl. No	Name of the programme	Date	Resource Person	Participant	Target group
<b>Department of Chemistry</b>					
<b>Training received by faculty and Students</b>					
1	e-Learning tools and its uses for college teachers conducted by	25 - 30 <sup>th</sup> June'2020	NIELIT	All Faculty members	Faculties
<b>Seminar Conducted</b>					
1	<b>Topic:</b> Job Opportunity through Plastic Technology – Part I	13 <sup>th</sup> Nov'2019	Dr Naimul Islam Technical Assistant, CIPET, Guwahati	39	5 <sup>th</sup> & 6 <sup>th</sup> SEM Students
2	<b>Topic:</b> Job Opportunity through Polymer Technology – Part II	13 <sup>th</sup> Nov'2019	Dr Mitali Roy Technical Assistant, CIPET, Guwahati	39	5 <sup>th</sup> & 6 <sup>th</sup> SEM Students
3	<b>Topic:</b> Future of STI – Skill on Education, Skills & Works	1 <sup>st</sup> Apr'21	Dr Krishna Gopal Bhattacharya Former Professor, Dept. of Chemistry Gauhati University	140	Multidisciplinary
<b>Scientific Talk</b>					
4	<b>Topic:</b> Students Role in Curbing Global Warming and Climate Change	23 <sup>rd</sup> Dec' 2021	Mr Debajit Das Coordinator India, United Nations Industrial	125	Multidisciplinary (Che & Math)



			Development Organizations, UNIDO		
<b>Hands on Training/ Workshop Conducted</b>					
5	<b>Topic:</b> Preparation of Standard Solution – the Concept of conc. Units	28 <sup>th</sup> Aug'2019	Dr Anup Talukdar Professor, Dept. of Chemistry Gauhati University	64 (Faculty 05)	Multidisciplinary (Che & Bot)
6	Basic Tools & Technologies in Analytical Chemistry	28 <sup>th</sup> Dec'2021	Dr Manash Lochan Das Associate Professor, Dept. of Chemistry Dudhnoi College, Dudhnoi	75 (Faculty 06)	Chemistry Honours Students
7	Basic Tools & Technologies in Analytical Chemistry	29 <sup>th</sup> Dec'2021	Dr Bijoy Sankar Goswami Associate Professor, Dept. of Chemistry, B Borooah College, Guwahati	70 (Faculty 06)	Chemistry Honours Students
8	Basic Tools & Technologies in Analytical Chemistry	30 <sup>th</sup> Dec'2021	Dr Arabinda Ray Retired Associate Prof & HOD, Dept. of Chemistry D K College, Mirza	70 (Faculty 06)	Chemistry Honours Students
<b>Advance Laboratory &amp; Field Visit</b>					
9	<b>CIPET – Guwahati</b>	11 <sup>th</sup> Nov'2019	CIPET	30 (Faculty 03)	5 <sup>th</sup> SEM Students
10	<b>Plasma Research Centre – Guwahati</b>	20 <sup>th</sup> Mar'2021	Plasma Research Centre	28 (Faculty 03)	3 <sup>rd</sup> SEM Students
11	<b>Pobitora National Park – Morigaon, Assam</b>	20 <sup>th</sup> Mar'2021	Guide of the Park	28 (Faculty 03)	3 <sup>rd</sup> SEM Students
<b>Webinar Conducted– Interdisciplinary lecture series</b>					
12	<b>Topic:</b> Medicinal Chemistry – Chemistry & Medicine	27 <sup>th</sup> Nov'2021	Dr Pankaj Kalita Assistant Prof, Dept. of Chemistry Arya Vidyapeet College, Guwahati	56 (Faculty 11)	Chemistry Honours Students
13	<b>Topic:</b> Green Chemistry	28 <sup>th</sup> Nov'2021	Dr Kamal Krishna Rajbongshi Professor, Dept. of Chemistry Handique Girls' College, Guwahati Post-Doctoral Fellow from Durban University, South Africa	64 (Faculty 08)	Chemistry Honours and Zoo, Bot Students
14	<b>Topic:</b> Biomolecules	30 <sup>th</sup> Nov'2021	Dr Geeta Saini Professor, Dept. of Chemistry Gargi College, University of Delhi	78 (Faculty 08)	Chemistry Honours and Zoo, Bot Students

### Introduction of New Practical's

- 15
- 1) Extraction of Essential Oils from Lemon Grass,
  - 2) Extraction of Natural Products from Medicinal Plants,
  - 3) Use of UV-Vis Spectroscopy in Chemical Analysis

### Department of Botany

#### Workshop Conducted–

1	<b>Topic:</b> “Seri-Bio resources: Biotechnology Application and Entrepreneurship Potential”	19 <sup>th</sup> Sept’2019	<b>Dr Kartik Neog</b> Scientist –D, CMER & TI, CSB, Lahdoigarh, Assam and <b>Dr Bhuban Chutia</b> Associate Professor, Dept of Zoology, Nowgaon College, Nagaon	Botany & Zoo students	UG Honours Students
2	<b>Topic:</b> “Molecular Technique”	23 <sup>rd</sup> & 24 <sup>th</sup> Oct’2019	Dr Bhaben Tanti Professor, Molecular Biology, Dept of Botany, Gauhati University	Botany students	UG Honours Students
3	<b>Topic:</b> “Mushroom Cultivation”	6 <sup>th</sup> Jan’2021	Mr Pinaki Kr Rabha Associate Professor, Dept of Botany, J. N. College, Boko	UG Students	Bot Hon students

#### Hands on Training Conducted –

4	<b>Topic:</b> “Bioinformatics: Tools & Technique”	4 <sup>th</sup> to 7 <sup>th</sup> Mar’2020	<b>Dr Pranjan Barman</b> (for Day I) Assistant Professor, Biotechnology Dept, Gauhati University <b>Mr N J Goswami</b> (for Day II) BIF Centre, College of Veterinary Science, Khanapara, Ghy <b>Dr Arabinda Gosh</b> (for Day III) Assistant Professor, Microbiology Dept., Gauhati University <b>Prof (Dr) Prabodh Bora</b> (for Day IV) State Level Biotech Hub & Professor Microbiology Dept., College of Veterinary Science, Khanapara, Guwahati	<b>Collaboration</b> Programme With – Biotech Hub, J.N. College, Dudhnoi College and Pandit Dindayal Upadhyay Model College	Bot Hon students
5	<b>Topic:</b> Orientation cum	3 <sup>rd</sup> to 5 <sup>th</sup>	<b>Dr B. B. Singha</b>	<b>Collaboration</b>	Bot Hon students



	Training Programme on “Eri & Muga Culture”	Dec’2020	(for Day I) Scientist – D (Retd.) Regional Sericulture Research Station, Boko, Assam <b>Dr B. K. Singh</b> (Retd.) (for Day I) Director Central Silk Board, Assam <b>Dr B Choudhury</b> (for Day II) Scientist (Retired) Central Silk Board, Assam Dr S.A.S. Rahman (for Day III) Scientist-D and HOD Regional Sericulture Research Station, Boko, Assam	Programme With – Zoology Dept., And Regional Sericulture Research Station, Central Silk Board, Ministry of Textiles, Govt of India	
6	<b>Topic:</b> Gel Electrophoresis and PCR Technique	4 <sup>th</sup> to 6 <sup>th</sup> Mar’2021	<b>Dr Pranjan Barman</b> Assistant Professor, Biotechnology Dept, Gauhati University <b>Rupam Buragohain</b> Ph.D. Scholar, Biotechnology Dept, Gauhati University <b>Mehzabin Rahman</b> Ph.D. Scholar, Biotechnology Dept, Gauhati University	<b>Collaboration</b> Programme With – Zoology Dept., JN College	UG Hon students
7	<b>Topic:</b> A day long Training program on “Agro-forestry Systems & National Agro-forestry Policy”	3 <sup>rd</sup> Dec’2021	<b>Dr Ranjita Bezbarua</b> Jr. Scientist, HRS, AAU, Kahikuchi, Guwahati-17 and Co-ordinator, National Agro-forestry Policy <b>Dr Ayub Ali Ahmed</b> Retired Principal Scientist, HRS, AAU, Kahikuchi, Guwahati-17	<b>Collaboration</b> Programme With – HRS, AAU, Kahikuchi, Guwahati-17	UG Hon students
<b>Student Exchange Programme –</b>					
8	<b>Topic:</b> Practical Bioinformatics	23 <sup>rd</sup> Dec’2021	Mr Pinaki Kr Rabha Associate Prof, Dept of Botany,	Pandit Dindayal Upadhyaya, Govt. College,	UG Hon students

			J N College, Boko	Amjonga	
Popular Talk Conducted–					
9	<b>Topic:</b> Interactive Meet cum Popular Talk: <b>Next Generation Drugs related to Cancer &amp;Alzheimer</b>	27 <sup>th</sup> Feb’2020	Dr Ankur Roy Scientist, Johnson & Johnson, USA	UG Students	Bot Hon students
10	<b>Topic:</b> Future of STI: Impact on Education, Skills and Work	1 <sup>st</sup> April’2021	Dr KG Bhattacharya Former Prof & Head, Dept of Chemistry Gauhati University	UG Students	UG Students
Field & Institution Visit –					
11	Field Study cum Institutional visit: ICAR, NEH Region, Borapani(Umiam), Meghalaya	17 <sup>th</sup> Oct’2019	Faculties of Botany	UG Students	SEM III Students
12	<b>Field visit:</b> Manas National Park	22 <sup>nd</sup> & 23 <sup>rd</sup> Jan’2021	Faculties of Botany	UG Students	SEM V Students
13	<b>Field visit:</b> Pobitora Wildlife Sanctuary	30 <sup>th</sup> Jan’2021	Faculties of Botany	UG Students	SEM I Students
14	<b>Field visit:</b> Agriculture Farm, Kahikuchi, Azara, Guwahati	8 <sup>th</sup> Jan’2022	Faculties of Botany	UG Students	SEM V Students
Webinar Conducted –					
15	<b>Topic:</b> “Algae of our Ponds – Friend or Foe” Meeting Code: ftp-nkxy-qbp	27 <sup>th</sup> July’2020	Professor(Dr) Partha Pratim Baruah Dept of Botany, Gauhati University	UG Students	All Bot Honours Students
16	<b>Topic:</b> “Why DNA is helical in Nature” Meeting Code: hxx-pmmx-xps	30 <sup>th</sup> July’2020	Professor (Dr) Suvendra Kumar Ray Dept of Molecular Biology and Biotechnology, Tezpur University	UG Students	All Bot Honours Students
17	<b>Topic:</b> “Fossils and its Implication to the Palaeo-vegetation and Palaeo-climate analysis” Zoom Meeting ID: 86195226786 Pass Code: 718784	31 <sup>th</sup> Aug’2020	Dr Sadhan Kumar Basumatary Scientist-D, Quaternary Palynology Division, Birbal Sahni Institute, Lucknow	UG Students	All Bot Honours Students
18	<b>Topic:</b> Online Scientific Lecture on “Microbes in Human Welfare” Meeting Code: bni-crkb-fva	29 <sup>th</sup> June’2021	Dr D K Jha Professor, Dept of Botany, Gauhati University	UG Students	All Bot Honours Students
Introduction of New Practical’s					
19	1) Extraction of Essential Oils from Lemon Grass, 2) Estimation of Chlorophyll content of leaves of Rubber Plant, 3) Sequence retrieval from databases, 4) Construction of Restriction map and phylogenetic tree, and 5) Homology Modelling through the BLAST (For Genes)				
Department of Zoology					
Hands-on experiments being conducted:					
1	<b>Topic:</b> Seri Bio-resources;	19 <sup>th</sup>	<b>Dr K Neog</b>	UG Students	All Zoology Hon

	Biotechnology Application and Entrepreneurship Potential	Sept'2019	Scientist D, CSB, Lahdoigrah and <b>Dr B Chutia</b> Associate Prof, Dept. of Zoology, Nowgaon College		Students
2	<b>Topic:</b> Concept and Component of Seri Culture	19 <sup>th</sup> Sept'2019	Dr BB Singh, Rtd. Scientist, Central Silk Board, Boko	UG Students	All Zoology Hon Students
3	<b>Topic:</b> Muga and Eri Silk Industry: Source & Sustainable Livelihood in NE India	4 <sup>th</sup> Dec'2020	Dr B Choudhury, Rtd. Scientist, CSB	UG Students	All Zoology Hon Students
4	<b>Topic:</b> Muga: Plantation and its Maintenance	5 <sup>th</sup> Dec'2020	Dr B Choudhury, Rtd. Scientist, CSB	UG Students	All Zoology Hon Students
5	<b>Topic:</b> Hands-on-Training on Gel Electrophoresis and PCR Techniques	4 <sup>th</sup> to 6 <sup>th</sup> Mar'2021	<b>Dr P Barman</b> , Prof, Biotechnology Dept., Gauhati University <b>Mehzabin Rahman</b> Research Scholar, Biotechnology Dept., Gauhati University <b>Rupam Buragohain</b> Research Scholar, Biotechnology Dept., Gauhati University	UG Students	All Zoology Hon Students
6	<b>Topic:</b> An Interdisciplinary Hands-on-Training on Bioinformatics: Tools and Techniques	13 – 14 <sup>th</sup> Dec'2021	<b>Dr Manas Das</b> Asstt Prof, Dept. of Zoology, GU and <b>Dr Kishor Sharma</b> Research Associate, Dept. of Zoology, GU	UG Students	All Zoology Hon Students

#### Field & Institution Visit –

7	Exposure Visit to Aquaculture and Biodiversity Centre, Gauhati University	3 <sup>rd</sup> Jan'2022	Faculties of Botany	UG Students	SEM V Students
8	Biodiversity Centre, Gauhati University	5 <sup>th</sup> Jan'22	Faculties of Botany	UG Students	SEM III Students

#### New experiments introduced:

9	Gel Electrophoresis and Protein Separation by SDS-PAGE
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#### Training received by Faculty/ Students:

10	Online Training on “Blended Faculty Development Programme on e- Learning Tools and its uses for College Teachers”	25 <sup>th</sup> to 30 <sup>th</sup> June'2020	Faculties from NIELIT	<b>Collaboration</b> Programme With – JN College, With NIELIT	Faculty members from the Dept
11	Orientation cum Training on “Eri & Muga Culture”	3 <sup>rd</sup> to 5 <sup>th</sup> Dec'2020	<b>Dr BB Singha</b> , Rtd. Scientist, Central Silk Board,	UG Students	All Honours Students

			<b>Dr BK Singha,</b> Rtd. Director, CSB, Assam Dr B Choudhury, Rtd. Scientist, Central Silk Board, Assam and Dr SAS Rahman, Scientist D & Head, RSRS, Boko		
<b>Seminars Conducted:</b>					
12	<b>Topic:</b> “Fish Diversity – Fishery & Career Prospects in NE India”	4 <sup>th</sup> Aug’2020	Dr Dandadhar Sarma, Prof, Dept. of Zoology and Associate Director of Graduate Studies of Environment	UG Students	All Honours Students
13	<b>Topic:</b> Non-Mulberry Sericulture of NE India	11 <sup>th</sup> Dec’2021	Dr Manabendra Deka, Scientist - C and Head, P – 3 Units, MESSO, Hahim, Assam	UG Students	All Honours Students
14	<b>Topic:</b> Employment Generation through Livestock and Poultry Farming in Assam	29 <sup>th</sup> Dec’2021	Dr Niranjana Kalita, Director of Research (Veterinary), AAU, Khanapara, Guwahati – 22	UG Students	All Honours Students
<b>Webinar Conducted:</b>					
15	<b>Topic:</b> International Webinar on “Insights from Trans- disciplinary Approaches for Responding to Covid-19 impacts in Aquatic-Social- Ecological”	15 <sup>th</sup> Aug’2020	Dr PK Nayak, Associate Prof and Enterprise and Development, Environmental Change Govt. Group University of Waterloo, Canada	UG Students	All Honours Students
16	<b>Topic:</b> National Webinar on “Webinar on use of Technologies in Wildlife Research with some Case Studies”	15 <sup>th</sup> Aug’2020	Dr Hillol Jyoti Singha, Prof, and HOD, Dept. of Zoology Bodoland University, BTAD, Kokrajhar, Assam	UG Students	All Honours Students
<b>Exhibitions cum Training Programme Conducted:</b>					
16	<b>Topic:</b> Exhibition cum Training on “Ornamental Fish Culture for ST Women”	3 <sup>rd</sup> Jan’2022	Dr Dandadhar Sarma, Prof, Department of Zoology and Coordinator of Aquaculture and Biodiversity Centre Gauhati University	UG Students	All Honours Students
<b>Department of Physics</b>					

**Advance Lab Visit/ Exposure Tour:**

1	Exposure tour to Tezpur University and NERIWALM	29 <sup>th</sup> &30 <sup>th</sup> Oct'2019	Faculties of the Institution	24 Students and 05 Faculties	Physics Honours Students
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**Awareness Programme Organised:**

2	Awareness campaign on "SNASKAR: MANUHE MANUHAR BABE" against superstition and antisocial activities	10 <sup>th</sup> Feb'2020	Dept of Physics Participants Student: 24 Teacher present:05	Dept of Physics in collaboration with Assam Science Society, Boko Branch	Villagers of Mouman, Boko, Assam
3	Awareness campaign against "Superstition and Antisocial Activities"	12 <sup>th</sup> Mar'2020	Dept of Physics Participants Student: 20 Teacher present:05	Dept of Physics in collaboration with Aryabhata Science Centre, Boko Block	Villagers of Batakuchi, Boko, Assam

**Webinar/ Online Lecture Programme Conducted**

4	Online Lecture on "Sensors and Signal Conditioning"	17 <sup>th</sup> Aug'2020	Prof Utpal Sarma, Department of Physics, Gauhati University	Participants:62 Student:46 Teacher:11 Others: 05	Physics Honours Students
5	Online Lecture on "The Universe as we Understand"	19 <sup>th</sup> Aug'2020	Dr Kishor Baruah, Department of Physics, Tezpur University	Participants: 78 Student:46 Teacher:14 Others: 11	Physics Honours Students
6	Online Lecture on "The Amazing World of Quantum: Quantum entanglement to Quantum Computer"	21 <sup>th</sup> Aug'2020	Prof Amarendr Sarma, Department of Physics, IIT Guwahati	Participants: 62 Student:45 Teacher:13 Others: 14	Physics Honours Students
7	Online Lecture on "The Quirks of the Quantum Realm"	23 <sup>th</sup> Aug'2020	Dr Mrityunjay Guha Mazumdar, Post-doctoral Fellow, TIFR	Participants: 250 Student:165 Teacher:30 Others: 55	Physics Honours Students

**Workshop Conducted**

8	Interdepartmental workshop on "Robotics and Artificial Intelligence"	6 <sup>th</sup> – 10 <sup>th</sup> Dec'2021	Mr Siddhartha Sen MSc in Electronics and PG Diploma in Artificial Intelligence Senior Consultant, <b>Educative</b>	Department of Physics in collaboration with Educative	UG Students of Science Dept
9	Workshop for the <b>Popularization of Science Education among School Students</b> (Block Level)	11 <sup>th</sup> Jan'2022	Senior faculty members from Physics, Chemistry, Botany and Zoology Dept of JN College, Boko	Department of Physics in collaboration with Aryabhata Science Centre	School Students of the Locality

**Department of Mathematics****Webinar conducted**

1	Webinar on <b>Fuzzy Sets</b> and their applications	5 <sup>th</sup> Aug'2020	Dr Ratnadev Sarma Associate Prof, Mathematics,	Participant: 62	Math Honours Students (UG & PG)
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			Rajdhani College, New, Delhi		
<b>Workshop Conducted</b>					
2	Celebration of “Online Math Festival”	25 <sup>th</sup> – 29 <sup>th</sup> Aug’2021	<ol style="list-style-type: none"> <li>1. Prof J F Peters, University of Manitoba, Canada</li> <li>2. Prof H Gunawan, Bandung Inst of Tech. Indonesia</li> <li>3. Prof Shashi Mohan Srivastava, ISI, Kolkata</li> <li>4. Prof E P Ghate , TIFR, Mumbai</li> <li>5. Prof S Banerjee, IIT, Roorkee</li> <li>6. Prof Ajit Kumar, ICT, Mumbai</li> <li>7. Prof Dilip Sarma, Cotton College, Guwahati (Retired)</li> <li>8. Prof Manish Jain, IIT, Gandhinagar</li> <li>9. Prof Mansaf Alam, Jamia Millia Islamia, New Delhi</li> <li>10. Prof B K Sarma, IIT Guwahati</li> <li>11. Prof B C Kalita, Gauhati University</li> <li>12. Prof Prabin Ch Das, AV College, Ghy</li> <li>13. Prof N D Baruah, Tezpur University</li> <li>14. Prof S Borkataki, Dibrugarh Univ</li> </ol>	More than 100 participants from the various Universities and Colleges of all over India along with the students and faculty members from our own institution	Math Honours Students (UG & PG)

3	Celebration of “ <b>Online Math Festival: National Quiz Competition</b> ”	25 <sup>th</sup> – 29 <sup>th</sup> Aug’2021	Faculties of the Dept	<b>First:</b> Mr. R Gupta Maharaja Agrarian Public School, New Delhi <b>Second:</b> S Chanda Aryan Junior College, Silchar, Assam <b>Third:</b> <b>Miss R Sarma</b> Delhi Public School, Roorkee	School Students
4	Celebration of “ <b>Online Math Festival: Creative Writing Competition</b> ”	25 <sup>th</sup> – 29 <sup>th</sup> Aug’2021	Faculties of the Dept	<b>First:</b> Miss S Lahiri Jadavpur University, West Bangle <b>Second:</b> Miss B Das Barnagar College, Sarbhog, Assam	School Students
5	Workshop on “ <b>LATEX</b> ”	5 <sup>th</sup> to 7 <sup>th</sup> Feb’2020	Dr. Hemen Dutta Department of Mathematics, Gauhati University	Students & Faculties of the Dept	UG Honours Students
6	Workshop on “Sage Math – An Open Source Free Software for UG Students”	7 <sup>th</sup> to 9 <sup>th</sup> Dec’2021	Dr Bidyut Kalita Assistant Prof, Department of Mathematics, Dudhnoi College	UG, PG Students & Faculties members of the Dept	UG Honours Students
7	Workshop on “ <b>Competitive Exam in Mathematics</b> ”With special interest to NET/SLET/GATE/Ph.D. Entrance	3 <sup>rd</sup> & 4 <sup>th</sup> Jan’2022	DrHemen Dutta Dept of Mathematics, Gauhati University	Students & Faculties of the Dept	UG Honours Students
<b>Training/ Short Term Course Conducted</b>					
8	Online Faculty Development Programme (FDP) on “ <b>Programming with Python, R &amp; MATLAB</b> ”	28 <sup>th</sup> June to 4 <sup>th</sup> July’2021	<b>Dr Sishir Kalita,</b> Data Scientist, Armsoftech.air <b>Dr Kuladip Sarma,</b> Asst. Prof, Cotton University and Mrs Parismita Gogoi, Asst. Prof, DUIET, Dibrugarh University	Students and Faculties of the Dept	UG Honours Students
<b>Seminar/ Lecture Series Conducted:</b>					
9	Lecture Series on “ <b>Some Topics in Functional</b> ”	30 <sup>th</sup> June to 3 <sup>rd</sup>	Dr Nilakshi Goswami Associate Prof.	Students and Faculties of the	UG Honours Students

	<b>Analysis”</b> <b>Topics:</b> Some Aspects of Dual Spaces, A Study on Reflexive Normed Spaces, and Separability in Normed Spaces and Related Properties	July’2021	Dept. of Mathematics Gauhati University	Dept	
10	Lecture Series on “ <b>TOPOLOGY</b> ”	7 <sup>th</sup> to 11 <sup>th</sup> Aug’2021	Dr Santanu Acharyee Associate Prof. Dept. of Mathematics Gauhati University	Students and Faculties of the Dept	UG Honours Students
11	EXPERT TALK AND INTERACTIVE SESSION on “ <b>Differential Equations as a Tool for Modeling Physical Problems</b> ”	30 <sup>th</sup> Dec’2021	<b>Prof Swaroop Nandan Bora,</b> Rtd. HOD, Dept Math, I.I.T. Guwahati <b>Mrs. Shiba Kandpal,</b> Research Scholar, IIT Guwahati Mrs Shilpi Jain, Research Scholar, IIT Guwahati	Teachers from different depts. and students of UG and PG	5 <sup>th</sup> SEM Students

**Celebration/ Participation Conducted:**

12	Celebration of “ <b>National Mathematics Day- 2021</b> ”	22 <sup>nd</sup> Dec’2021	Faculties of the Dept	UG, PG Students & Faculties of the Dept	UG Honours Students
13	Participation on “ <b>e-Learning tools and its uses for college teachers conducted by NIELIT</b> ”	25 <sup>th</sup> to 30 <sup>th</sup> June’2020	Faculties from NIELIT	PG Students & Faculties of the Dept	Faculties of the Dept

**Programmes Conducted by the Coordinator of the Scheme: DBT Star Status**

**Celebration under DBT Star Status Scheme Programmes:**

1	Celebration of World Water Day – 2021 <b>Seminar</b> on the <b>Topic:</b> Catch the Rain – where it falls, when it falls Meeting Link: ruu-eyoy-bhp	22 <sup>nd</sup> Mar’2021	Dr Tapan Dutta Principal, J N College, Boko	More than 140 participants and All the Faculties from Sc Stream (more than 37)	UG & PG Students from Science Stream
2	Celebration of World Environmental Day <b>Webinar</b> on the <b>Topic:</b> Ecosystem Restoration: A Tool to Protect Biodiversity and Future for Human Survival Meeting Link: ruu-eyoy-bhp	5 <sup>th</sup> Jun’2021	Dr Bibhuti Prasad Lahkar Programme Secy., & Division Head Aaranyak	More than 140 participants and All the Faculties from Sc Stream (more than 37)	UG & PG Students from Science Stream
3	Celebration of Azadi Ka Amrit Mohotsav: Interaction Programme/ Science Adda <b>Seminar</b> on the <b>Topic:</b> Interaction Prog/ Science Adda The programme includes (□) Interaction Programme with School & College Students	16 <sup>th</sup> Dec’2021	<b>Dr Ranjit Kumar Barman</b> Renowned Scientists, Former Head, Science & Technology Division, ASTEC Government of Assam <b>Prof Jogen Chandra</b>	More than 300 Participants All the Faculty members from Science Stream and Schools (more than 37)	School Students from nearby locality



	with renowned Scientists and Academicians, ( □ ) Quiz Competition followed by ( □ ) Laboratory Visit		<b>Kalita</b> Renowned Academician and HOD Zoology Gauhati University, Guwahati		
<b>Participated under DBT Star Status Scheme Programmes:</b>					
4	<b>Webinar</b> on the <b>Topic:</b> Bio resources of North East India Under Science Setu – Celebration of Azadi Ka Amrit Mohotsav Platform —Cisco WebEx	9 <sup>th</sup> Mar'2021	<b>Dr Ajoy Kumar Singh Rawat</b> Executive Director, Ethno-Medicinal Research Centre Henbung, Senapati, Manipur <b>Dr Lokesh Dev</b> Scientist-D, (Pharmacology), IBSD (Institute of Bio-research and Sustainable Development), and <b>Dr Y Rajashkar</b> Scientist, (Animal Resources), IBSD	All the Faculty members from DBT Science Dept and 120 Students	Audiences are the staff and Students of DBT Star Colleges of Assam, namely our College & Handique Girls' College)
5	<b>Webinar</b> on the <b>Topic:</b> North East Microbial Repository & Bio-prospecting Under Science Setu – Celebration of Azadi Ka Amrit Mohotsav Platform —Cisco WebEx	6 <sup>th</sup> July'2021	<b>Dr Yogesh Shouche</b> Principal Investigator, National Centre for Microbial Resource (NCMR), National Centre for Cell Science (NCCS), Pune and <b>Prof N Devananda Singh</b> Dept of Biochemistry, Manipur University, Imphal	All the Faculty members from DBT Science Dept and 150 Students	Audiences are the staff and Students of DBT Star Colleges of Assam, namely our College & Handique Girls' College)
<b>Seminar/ Workshop Organized under DBT Star Status Scheme Programmes for the benefit of Students &amp; Faculty members:</b>					
6	<b>Seminar</b> on the <b>Topic:</b> Future of STI – Skill on Education, Skills & Works	1 <sup>st</sup> April'2021	Dr KG Bhattacharya Former Professor, Dept. of Chemistry Gauhati University	More than 140 Participants& all the Faculty members from Sc Stream	UG & PG Students from Science
7	<b>Seminar</b> on the <b>Topic:</b> Science & Technology – Innovation and Patents	8 <sup>th</sup> Sept'2021	Dr Ranjit Kumar Barman Head Science and Technology Dept, ASTEC, Govt. of Assam	More than 150 Participants& all the Faculty members from Sc Stream	UG & PG Students from Science
8	<b>Workshop</b> cum <b>Training</b> programme for the Faculty members as well as Office Staff including Library Staff of	25 to 30 June'2020	Experts from NIELIT	More than 150 Participants& all the Faculty members from	Faculties and Library staff

	the College <b>Topic:</b> “e- Learning tools and its uses”			Sc Stream	
<b>Social Responsibility/ Mentor Programmes Organized under DBT Star Status Scheme for the benefit of Society:</b>					
9	<b>Seminar on the Topic:</b> Virtual <b>Mentoring Session</b> on Preparation for Oral Presentation of the Colleges Shortlisted under the DBT Star College Scheme for the year 2021 – 22: Skill on Education, Skills & Works	17 <sup>th</sup> Dec'2021	Resource Person/ Mentors: Dr Tapan Dutta Former Coordinator, DBT Star Status Scheme now Principal, J N College, Boko and Prof Jogen Ch Kalita HOD, Zoology, Gauhati University, Guwahati	Coordinators of the Scheme as well as Principals along with the interested Faculty members of different Colleges	16 Colleges from various districts of Assam, especially rural Colleges



(Dr Nuruddin Ahmed)  
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DBT Star Status Scheme  
J N College, Boko