

JAWAHARLAL NEHRU COLLEGE, BOKO

DEPARTMENT OF MATHEMATICS

Success Story of the Department of Mathematics under DBT Star Grants

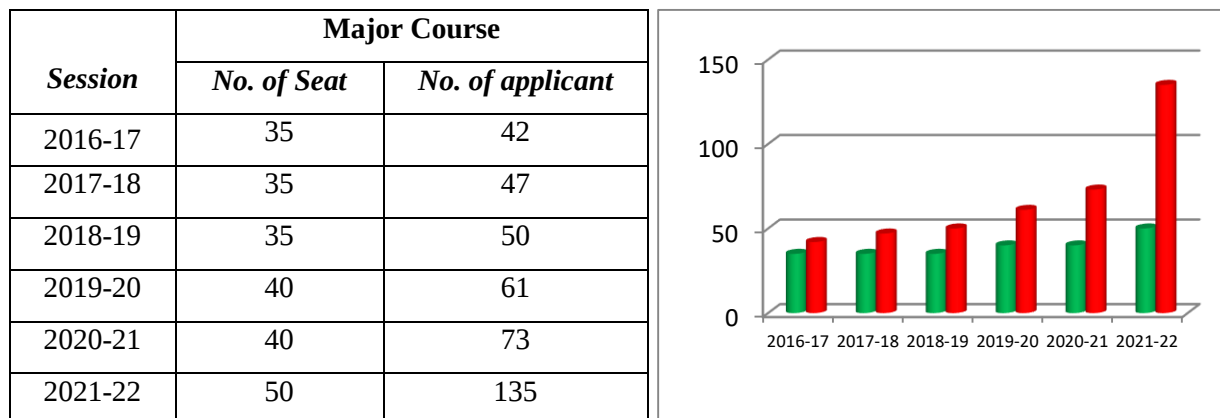
The Star College Scheme was initiated by DBT in 2008 to support colleges and universities offering undergraduate education to improve science teaching across the country. Based on our application and subsequent oral presentation before a Task Force meeting held at DBT head office, New Delhi the Department of Biotechnology- Govt. of India was pleased to undertake five departments of our college viz. Botany, Chemistry, Mathematics, Physics and Zoology for funding under Strengthening Component of the Star College Scheme in the year 2015 initially for three years for the gross development of the science education. In 2019 DBT recommended for awarding of **DBT Star Status** to all the five departments for a period of three years. The college is now became the only college of the state of Assam to receive this prestigious award and subsequent financial assistance.

With the strong and valuable support of DBT the department of Mathematics of Jawaharlal Nehru College upgraded with an advanced computer lab, classrooms with ICT facilities and a departmental library for the benefit of our students as well as students and faculties of nearby institutions. More seminars training, workshops, laboratory/library visit, popular talks have been conducted more books and journals have been procured to the departmental libraries. The number of students admitted to this department is increasing year. The department is doing its level best to implement this scheme to achieve desired goal and also committed to continue the proposed journey.

Important developments of the department during this period:

- (i) **Improvement of classroom facilities and departmental Library:** The classroom facilities are developed during this scheme period including an Inter Active Smart-Board and LED projector. The digital smart class facilities enhance students' interest and motivation. The departmental library includes more text books and reference books in this period.
- (ii) **Computer Lab facilities:** A computer lab with 20 desktop computers is developed with DBT grant. 5- users Mathematical Programming software "MATHEMATICA" is installed in computers. The lab helps the department to conduct more effective hands on training/workshops on computer software C++, SageMath, R-programming, Latex regularly for the benefit of students and faculties.

- (iii) **Increasing the number of Honours students:** The number of applicants to opt Major/Honours in Mathematics gradually increasing in the recent years. The college have to introduced entrance test for offering honours from 2019-20. The following table reflects the message.



- (iv) **Significant Result/performance by the students:** The students from the department are showing very good result/performance in the final exams/competitive exams/Ph.D. entrance etc. during this period. Some records are shown in the following table

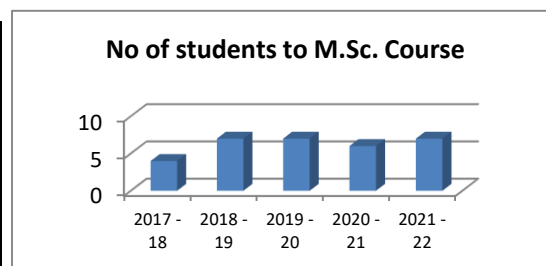
Sl.No.	Name of student	Achievement	Year
1	Akash Kalita	Secured First Class First position under Gauhati University in B.Sc. Examination.	2019
2	Nabin Daimary	Secured First Class Second position under Gauhati University in B.Sc. Examination.	2019
3	Akash Kalita & Nobin Daimary	Performed a very good score in All India Madhaba Mathematics competition organized by IIT Mumbai.	2018
4	Akash Kalita & Nobin Daimary	Qualified in JAM and eligible for M.Sc. course in IIT. Mr. Nobin Daimary admitted for M.Sc. in Mathematics & Computing at IIT, Guwahati.	2019
5	Rupam Kumar	Secured First Class First position under Gauhati University in B.Sc. Examination.	2020
6	Zahir Hussain	Secured First Class First position under Gauhati University in M.Sc. Examination.	2020

7	Akash Kalita	Qualified in GATE (2022) and admitted for Ph.D. in IIT Guwahati.	2022
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(v) **M.Sc. course under Gauhati University:** For a very good performance of students in UG level, upgraded departmental lab, Gauhati University granted permission to open M.Sc. course in this department from the session 2017-18 with initial capacity 20 and increases the number of seats up to 30 from the session 2020-21. Along with UG now the department offers regular teaching in M.Sc. classes also and students have been showing very good result in M.Sc. also. This is a remarkable extension of service by the department.

(vi) **Well progression rate to Higher Education:** During the period of last five academic sessions the progression of students of this department to higher education after completing the UG Honours course is very good. The following table shows the progression

Year	No. of students passed	No of students to M.Sc. Course
2017 - 18	09	04
2018 - 19	11	07
2019 - 20	22	07
2020 - 21	24	06
2021 - 22	21	07



(vii) **Departmental Activities during the period :** During this period the department of Mathematics has organized so many important activities for the benefit of students and faculties of this college as well as students and faculties of nearby institutions using DBT grants. It includes

- **Workshop/Training for students and faculties - 05**

1. 7 Days Workshop on C-Programming Language (9th to 15th March, 2018)
2. Workshop on C-programming Language (27th and 28th March, 2019)
3. Workshop on 'Mathematica' a mathematics software (27th June to 3rd July, 2019)
4. Workshop on LaTeX (5th to 7th February, 2021)
5. Workshop on SageMath : An Open Source Free Software (07 – 09th December, 2021)

- **Faculty Development Programme – 01**

7 days online FACULTY DEVELOPMENT PROGRAMME (FDP) ON ‘**PROGRAMMING WITH PYTHON, R & MATLAB**’ (28th June to 4th July, 2021)

- **International Math Festival (online) – 01**

International Math Festival (online) with Expert talks, Group Discussion, National level Quiz and Creative writing competition (25th to 29th August, 2020)

- **Coaching for competitive examinations like Mathematics Olympiad / NET/ SLET/ Ph.D. Entrance – 02**

1. Coaching for Mathematics Olympiad on 23th May, 2019
2. Coaching Workshop on Competitive Examination in Mathematics: With special interest to NET/ SLET/ GATE/Ph.D. Entrance (03-04 January, 2022).

- **Seminar – 05**

1. Topic: “Beauty of Mathematics and Applications to the Real World”
Resource Person : Dr. Tarini Kumar Dutta, Retd. Professor, Dept. of Mathematics, GU.
2. Topic : “Some Applications of Congruence Relations”
Resource person : Dr. Dipankar Sarma
3. Topic : “Statistics and Some of its Applications”
Resource Person : Dr. Dhiraj Kr. Das
4. Topic : Ramanujan Mathematics
Resource person Dr. Dipankar Sarma
5. Topic : Solution of Differential equations: algebraically and numerically
Resource person Mr. Dipumoni Nath

- **Summer Camp-01**

Summer Camp for UG Students (26th June to 2nd July, 2018)

- **Memorial Lecture-01**

Santiram Das Memorial Lecture on “Vedic Mathematics” (10th November, 2018)

- **Lecture Series (online)-01**

Topic : “New Horizons in Calculus” an online lecture series with INYAS (June,20)

- **Webinar – 01**

Webinar on Fuzzy sets and their applications (05-08-2020)

- **Lecture Series :**

1. Topic - Some Topics in Functional Analysis (30th June to 3rd July, 2021)
2. Topic – Topology (7th to 11th August, 2021)
3. Topics : Dynamical System, Fractal Geometry, Functional Analysis, Topology, R-Programming (9th to 14th May, 2022)

- **Expert Talk and Interactive Session -01**

Topic: Differential Equations as a Tool for Modelling of Physical Problems (30th December, 2021)

- **Popular Talks – 01**

Topic: ‘Development of Mathematical Concepts in ancient India : Some historical aspects’.

Resource Person: Prof. Kripashindhu Choudhuri (prof Emeritus Fellow UGC – AICTE)

Former HoD Dept. of Mathematics, Jadavpur University, Kolkata

(viii) List of Minor Projects implemented, name of students and supervisor:

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	Jatindra Boro	2015
02	Self-Similarity Dimension of the Factical 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	A study on 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	Bashudeb Barai	2016
07	Numerical analysis and some of its applications	Dr. Alok Das	Hitesh Medhi	2016
08	C-programming and some of its its applications	Dr. Dhiraj Kr. Das	Rinku Das	2016
09	Introduction to parallax and some of its applications	Dr. Alok Das	Tralakya Basumatary	2017
10	Introduction to bipartite graph and some applications	Dr. Nabajyoti Das	Mridul Islam	2017
13	Mathematic models of some real world problem	Dr. Dhiraj Kr. Das	Garima Das	2017
15	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	Hemoprabha Boro	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. Dipankar Sarma	Sewabrat Deka	2018
21	Linear programming problem and its application	Mr. Kabindra Goswami	Pranjit Das	2018
22	Some aspects of Eulerian and Hamiltonian graph	Dr. Nabajyoti Das	Hirakjyoti Das	2018
23	An application of Fourier Analysis understand musical sounds and principle of additive synthesis	Dr. Dhiraj Kr. Das	Jaminur Ali Akhtar	2021
24	A study of differentiation and its applications	Dr. Dhiraj Kr. Das	Himanhshu Kalita	2021
25	Matrices and some of its applications	Dr. Dhiraj Kr. Das	Karabi Kalita	2021
26	A Data entry software for admission	Dr. Alok Das	Jayanta Kalita	2020
27	A study of Coordinate Geometry and its applications in real field	Dr. Dhiraj Kr. Das	Kakuli Rabha	2021
28	A study of interpolation and its Formula	Dr. Dhiraj Kr. Das	Fulchand Ali	2021
29	Graph Theory and some of its applications	Dr. Dhiraj Kr. Das	Nandita Rabha	2021
30	A Study of system of Linear Equation and its Applications	Dr. Dhiraj Kr. Das	Bhupati Sarkar	2021

31	Importance of Algebra in real life	Dr. Dhiraj Kr. Das	Ajoy Soni	
32	Application of computer programming to find nC_r using recursive function in C	Dr. Dhiraj Kr. Das	Atifa Hussain	

(ix). Programmes participated by the Faculties :

Sl. No	Name of programme	Name of faculty	Date
01	STC on ‘Students Counselling and Guidance’ at the HRDC, Burdwan University, Burdwan, WB	Dr. Dipankar Sarma	24-30 Dec,2014
02	STC on ‘Disaster Management’ at the HRDC, Gauhati University, Guwahati	Dr. Nabajyoti Das	2-8 Feb, 2015
03	STC on ‘Disaster Management’ at the HRDC, North Bangle University, Darjeeling, WB	Dr. Dhiraj Kumar Das	13-19 Nav,2015
04	STC on ‘Disaster Management’ at the HRDC, North Bangle University, Darjeeling, WB	Dr. Alok Das	13-19 Nav,2015
05	Teachers Enrichment Workshop at IIT Guwahati	Dr. Nabajyoti Das	14-19 Dec,2015
06	Teachers Enrichment Workshop at IIT Guwahati	Dr. Dipankar Sarma	14-19 Dec,2015
07	National Seminar on ‘Advances in Mathematical Sciences’ at Department of Mathematics, Gauhati University, Guwahati	Dr. Dipankar Sarma	22-12-2015
08	STC on ‘Remote sensing and GIS’ at the HRDC, Burdwan University, Burdwan, WB	Dr. Dipankar Sarma	29-12-15 to 04-01-16
09	Teachers Enrichment Workshop at IIT Guwahati	Dr. Dipankar Sarma	15-21 Dec,2016
10	FDP on ITC organized by NEILIT	Dr. Dhirak K Das Dr. Alok Das Dr. Dipankar Sarma	
11	FDP on MATLAB, Python and R	Dr. Dhirak K Das Dr. Alok Das Dr. Dipankar Sarma	28 June to 4 th July, 21

(x). Research paper presented by the Faculties :

Sl. No	Achievement	Name of Teacher / Student	Date/Year
1	Presentation paper entitled “ <i>A study on two main causes of Gender Differences in Mathematics Performance</i> ” in the National Seminar organized by Dept. of Mathematics, Gauhati University & Assam Academy of Mathematics	Dr. Dipankar Sarma	22-12-2015

(xi). Book publication :

Name of book	Name of writer	Name of publisher	Year of publication
Combinatorics and Graph Theory	Dr. Dipankar Sarma	Assam Book Depot	2022

Details of activities with photos :

Session: 2016-17

Programme 1:

18 Hours Training Programme on C-language for T. D.C. (major) students from 08th October, 2015. Resource Person: Mr. Amanur Ranman, I T Faculty, NIELIT, Guwahati.

Programme 2:

Workshop on “USE OF MATHEMATICA” for TDC (major) students From 04th to 06th March 2016

Resource Persons: Prof. Hemanta Kumar Sarma, Dept of Mathematics, Gauhati University

Mr. Mridul Das, Research Scholar, G U

Mr. Samir Ranjan Saha Research Scholar, G U

Dr. Nabajyoti Das, J N College

Programme 3:

Workshop on “*Linear Programming Problem*” For TDC (major) students from 15-16 March 2016.

Resource Person : Dr. Debashish Bhattacharya, Dept Mathematics, Gauhati University

Dr. Dipankar Sarma, J N College

Session: 2016-17

Programme: Popular Talk:

Popular Talk on ‘Development of Mathematical Concepts in ancient India : Some historical aspects’.

Resource Person: Prof. Kripashindhu Choudhuri (prof Emeritus Fellow UGC – AICTE)

Former HoD Dept. of Mathematics, Jadavpur University, Kolkata.

Date: 6th September, 2016

No. of participants: 78

Some moments of the programme:



Session: 2017-18

Programme 1: Seminar

Seminar on “Beauty of Mathematics and Applications to the Real World” on 26 February, 2018. Resource Person : Dr. Tarini Kumar Dutta, Retd. Professor, Dept. of Mathematics, Gauhati University.

Number of participants: 35

Programme 2: 7 Days Workshop

7 Days Workshop on C-Programming Language for T. D.C.(Major) Students of Mathematics & Physics from 9th to 15th March, 2018.

Resource Persons : Mr. Ratul Sarmah, Software Engineer ,
Mr. AmanurRanman, State Data Analyst, SBM-G, PHED
Dr. NilakshiGoswami, Asstt. Professor, Dept. of Mathematics, G. U.

Number of participants: 28

Programme 3: Seminar

Seminar on “Some Applications of Congruence Relations” on 21st March, 2018.

Resource person : Dr. Dipankar Sarma

Number of participants: 37

Programme 4 : Seminar

Seminar on “Statistics and Some of its Applications” on 31st March, 2018.

Resource Person : Dr. Dhiraj Kr. Das.

Session 2018-19

Programme 1: Summer Camp

Summer Camp for UG Students From 26th June to 2nd July, 2018. Dr. (Mrs.) Chandra Rekha Mahanta Associate Professor, Dept. of Mathematics, Gauhati University delivered a talk on relativity. Number of participants: 135 (including students from five science departments)

Some moments of the programme



Programme 2: Memorial Lecture

Santiram Das Memorial Lecture on “Vedic Mathematics” organized by Assam Academy of Mathematics in association with the Department of Mathematics, J. N. College, Boko on 10th November, 2018. Dr. (Mrs.) Ranjana Choudhury, Retd. Professor, Dept. of Mathematics, Handique College, Guwahati was the key speaker of the programme.

Number of participants: 96

Some moments of the programm :



Programme 3: Seminar

Seminar on Ramanujan Mathematics in connection with celebration of National Mathematics Day on 22nd December, 2018. Resource person Dr. Dipankar Sarma, Asstt. Professor, Dept. of Mathematics, J.N. College, Boko

Number of participants: 28

Some moments of the programme :



Programme 4: Seminar

Seminar on Solution of Differential equations: algebraically and numerically on 28th January, 2019. Resource person Mr. Dipumoni Nath, Dept. of Mathematics, J. N. College, Boko

Number of participants: 22

Some moments of the programme :



Programme 5 : Workshop

Workshop on C-programming Language on 27th and 28th March, 2019 for UG & PG students.

Resource persons : Dr. Alok, Asstt. Professor, Dept. of Mathematics, J.N. College, Boko

Miss Dorothi Kalita, Faculty-PGDCA, J. N. College, Boko.

Number of participants: 38

Some moments of the programme :



Programme 5: Coaching for Mathematics Olympiad

Coaching for Mathematics Olympiad on 23th May, 2019 for school students of Boko.
Resource persons : Dr. D. K. Das & Dr. Dipankar Sarma.
Number of participants: 18

Session: 2019-20

Programme 1: Workshop

Workshop on 'Mathematica' a mathematics software (for UG & PG students from different colleges) on 27th June to 3rd July, 2019.
Resource persons: Prof. Hemanta Kumar Sarma, Dr. Debashish Bhattacharjee, Dr. Ranu Poul of Gauhati University and Miss Darathi Kalita of J. N. College.

Number of participants: 26

Session: 2020-21

Programme -1

Webinar on Fuzzy sets and their applications
Date: 05-08-2020
Resource Person: Dr. Ratnadev Sarma, Associate Professor,
Rajdhani College, New, Delhi
Participants: 76



Programme -2

International Math Festival (online)

From 25th to 29th August, 2020

This online festival aims to focus on different new perspectives of the subject mathematics, its uses and applications, job prospects and contribution to the society and mankind. The festival includes various talks, presentations and demonstrations aiming at visualizing mathematics, mathematics learning through laboratory experiments, mathematical logic, theory of numbers, mathematics of computational intelligence, mathematics behind data science and machine learning and mathematical modeling approaches showcasing possible interactions of mathematics with the real world phenomena. It also includes a talk on 'Mathematics studies in Assam from ancient to modern times' and form a panel of mathematicians from the region to discuss on Issues and Prospects of Mathematics Education in Assam. A Quiz and a creative writing competition was also held in this festival in National level.

Resource Persons- who have Contributed in the Festival

Prof. James F. Peters, University of Manitoba, Canada

Prof. Hendra Gunawan, Bandung Inst of Tech. Indonesia

Prof. Shashi Mohan Srivastava, I S I, Kolkata

Prof. Eknath Prabhakar Ghate, T I F R, Mumbai

Prof. Sandip Banerjee, I I T, Roorkee

Prof. Ajit Kumar, I C T, Mumbai

Prof. Dilip Sarma, Cotton College, Guwahati (Retd)

Prof. Manish Jain, I I T, Gandhinagar

Prof. Mansaf Alam, Jamia Millia Islamia, New Delhi

Prof. Bhaba Kumar Sarma, I.I.T. Guwahati

Prof. Bhaben. Ch. Kalita, Gauhati University

Prof. Prabin Ch Das, A.V. College, Guwahati

Prof. Nayandeep Deka Baruah, Tezpur University

Prof. Surajit Borkataki, Dibrugarh University

Participants: More than 100 participants from Universities and Colleges of all over India

A Mathematics Quiz and Writing competitions are also held during this festival.

Result of Quiz Competition:

First: Mr. Rishabh Gupta of Maharaja Agarsain Public School, Delhi

Second: Subhamoy Chanda of Aryan Junior College, Silchar, Assam

Third: Miss Ruchira Sarma of Delhi Public School, Roorkee

Result of Creative Writing Competition:

First: Miss Sudeshna Lahiri of Jadavpur University, West Bangle

Second: Miss Barasha Das of Barnagar College, Sarbhog, Assam

Programme – 3 : Workshop

Workshop on LaTeX From 5th to 7th February, 2021

Resource Person _ Dr. Hemen Dutta, Dept of Mathematics, Gauhati University

Targeted group _ UG & PG students and Faculties of J N College

No. of Participants : 72

Some Moments of the workshop



MATH FESTIVAL, 2020 (ONLINE)
ORGANIZED BY
DEPARTMENT OF MATHEMATICS, JAWAHARLAL NEHRU COLLEGE, BOKO
JUNIOR B.A. & B.Sc. STATUS
IN ASSOCIATION WITH
ASSAM ACADEMY OF MATHEMATICS
25-29 AUGUST, 2020 (2:30 - 5:30 PM)

This online festival aims to focus on different new perspectives of the subject mathematics, its uses and applications, job prospects and contribution to the society and mankind. It should bring forward many fascinating areas across various disciplines where mathematics can play its role, and also to provide with effective mathematics teaching-learning strategies. The festival includes various talks, presentations and demonstration aiming at 'enriching mathematics, mathematics learning through laboratory experiments, mathematical logic, theory of numbers, mathematics of computational intelligence, mathematics behind data science and machine learning and mathematical modelling approaches showcasing possible interactions of mathematics with the real world phenomena. It also includes a talk on 'Mathematics studies in Assam from ancient to modern times' and form a panel of mathematicians from the region to discuss on Issues and Prospects of Mathematics Education in Assam.

The festival also aims to increase competitiveness and creative thinking by providing a platform for participating in quiz and creative writing competitions. The theme creative writing is "Opportunities in Mathematics for the Society". In both competitions, three best participants shall be awarded cash prizes along with e-certificates of merit. Interested competitors can visit the website of Jawaharlal Nehru College Boko for rule and mode of participation.

Registration Deadline: 22 August, 2020 (4 PM)
Registration Link: <https://forms.gle/XV5dLmN3VTh7P8>
Our email address - assammaths2020@gmail.com
Website - Jawaharlal Nehru College - <https://www.jncboko.ac.in>
Website - Assam Academy of Mathematics: <http://assammaths.org.in>

Registration Link QUIZ (organized For VIII - XII Students):
<https://forms.gle/2C9eHdU75eG7Tdy27>
Creative Writing (organized for UG/PG students) Sending address:
assammaths2020@gmail.com

Core Organizing Team : Math Fest 2020 (online)
Dhiraj Kumar Das Jawaharlal Nehru College
Dipankar Sarma Jawaharlal Nehru College
Hemen Dutta Gauhati University
Jitendrakumar Sarma Assam Academy of Mathematics
Alok Das Jawaharlal Nehru College

SPEAKERS

Hendra Gunawan Bandung Institute of Technology Indonesia	James F. Peters University of Manitoba, Canada
Eknath Prabhakar Ghate Tata Institute of Fundamental Research, Mumbai	Shashi Mohan Srivastava Indian Statistical Inst, Kolkata (Retd)
Ajit Kumar Institute of Chemical Technology, Mumbai	Sandip Banerjee Indian Institute of Technology, Roorkee
Manish Jain Centre of Creative Learning Indian Institute of Tech Gandhinagar	Dilip Sarma Cotton College, Guwahati (Retd)
	Mansaf Alam Jamia Millia Islamia New Delhi

Resource Persons in the Panel Discussion
Theme- Issues and Prospects of Mathematics Education in Assam

Bhaben Ch Kalita Gauhati University (Retd)	Bhaba K Sarma IIT Guwahati	Prabin Das A V College (Retd)	Nayandeep Deka Baruah Tezpur University	Serajit Borkataki Dibrugarh University
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The programme detail will be sent to the registered participants via mail.
E-certificates will be provided to the registered participants.

Programme- 4: Online lecture series

“New Horizons in Calculus” an online lecture series organized by [INYAS](https://www.inyas.ac.in/) in collaboration with Assam Academy of Mathematics and Department of Mathematics, Jawaharlal Nehru College, Boko Assam. The series aims to explore the basics and important developments in the areas of ‘time-scale calculus’ & ‘fractional calculus’ with glimpses into new trends and applications.

The first lecture was given on 20th June, 2021

Topic: Time scale Theory : Introduction and applications.

Resource Person : Sabrina Streipert,

McMaster University | McMaster · Department of Mathematics and Statistics

Programme- 5: 7-Days FDP

7 DAYS FACULTY DEVELOPMENT PROGRAMME (FDP) ON 'PROGRAMMING WITH PYTHON, R & MATLAB'

Organized by
Department of Mathematics (UG&PG) & IQAC
Jawaharlal Nehru College, Boko: Assam
Sponsored by
D. B. T. Govt. of India

Date: 28th June to 4th July, 2021
Time: 6:30 – 8:00 pm (everyday)
Platform: ZOOM / GOOGLE MEET

ORGANIZING TEAM

Dr. Tapan Dutta Principal J N College Boko	Dr. Dhiraj Kr Das HoD Mathematics Coordinator IQAC	Dr. Alok Das Asso. Prof. Advisor, FDP	Dr. Dipankar Sarma Asso. Prof. Coordinator, FDP
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Background of the FDP...
Programming languages involve tasks such as analysis, algorithm generation, profiling algorithm's accuracy and implementing the algorithms in a chosen field. It has very important role in learning and doing research. Moreover skill based knowledge is very necessary in every stage of education system in the current situation. Giving importance on this, UGC includes so many programming languages in the current UG and PG syllabus in different disciplines as a core or skill enhancement subject. Accordingly teachers are also to earn expertise in these new fields to teach their students effectively. At the same time continuous updgradation with necessary knowledge and skill is also important for every individual associated with teaching and research. Keeping above views in mind, the department of Mathematics (UG & PG) of Jawaharlal Nehru College, under DBT Star Status Scheme has organized this FDP on- 'Programming with Python, R and MATLAB' with applicability on Mathematics, Statistics, Physics, Bioscience, Chemistry, Economics and so many other disciplines.

Link for Registration : <https://forms.gle/58Zte1C31dhYKEQ7>
Contact Nos. for communication: 9435340747, 8761985755
Email for communication: dipankarcmath@gmail.com

Registration Fee: No Fee for registration
Last Date of Registration: 27-06-2021
Visit us at : www.jncollegeboko.ac.in

7 days online FACULTY DEVELOPMENT PROGRAMME (FDP) ON 'PROGRAMMING WITH PYTHON, R & MATLAB'

Date: 28th June to 4th July, 2021

Resource Persons:

Dr. Sishir Kalita, Data Scientist, Armssofttech.air

Dr. Kuladip Sarma, Asst. Prof, Cotton University

Ms Parismita Gogoi, Asst. Prof, DUIET, Dibrugarh University

No. of Participants: 36

7 DAYS FACULTY DEVELOPMENT PROGRAMME (FDP) ON 'PROGRAMMING WITH PYTHON, R & MATLAB'

Organized by
Department of Mathematics (UG & PG) and IQAC
JAWAHARLAL NEHRU COLLEGE, BOKO, ASSAM
Sponsored by **D.B.T. Govt of India**

Date: 28th June to 4th July, 2021 **Platform: Zoom**

DAY	DATE	TOPIC	TIME	SPEAKER
Day 1	28 th June, 21	Python - 1	6:30 PM	Speaker - 1
Day 2	29 th June, 21	Python - 2	6:30 PM	Speaker - 1
Day 3	30 th June, 21	R language - 1	6:30 PM	Speaker - 2
Day 4	1 st July, 21	R language - 2	6:30 PM	Speaker - 2
Day 5	2 nd July, 21	MATLAB - 1	6:30 PM	Speaker - 3
Day 6	3 rd July, 21	MATLAB - 2	6:30 PM	Speaker - 3
Day 7	4 th July, 21	Discussion/Valedictory	6:30 PM	

Speakers:

Dr. Sishir Kalita Data Scientist Armssofttech	Dr. Kuladip Sarma Asst. Prof Cotton University	Ms. Parismita Gogoi Asst. Prof, DUIET Dibrugarh University
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Important points regarding the FDP:

- No Registration Fee is imposed for the FDP.
- The programme will be through the virtual platform ZOOM.
- Participants should be available with Laptop containing the software PYTHON, R and MATLAB.
- The attendance link for PYTHON - <https://www.python.org/learn/tutorial/tut1.html>
- The attendance link for R - <https://www.datacamp.com/courses/r-tutorial-and-all-you-need-to-know>
- The attendance link for MATLAB - <https://www.mathworks.com/campaigns/products/tut1.html>
- E-certificates will be provided to the participants attending all of the seven days of the FDP.
- For any information contact 9435340747 / 9761985755 or write to dipankarcmath@gmail.com
- Visit Jawaharlal Nehru College at www.jncollegeboko.ac.in

The ZOOM Link (for each day) - <https://us02zoom.us/j/9435340747>
Meeting ID: 997 6855 4706 **Passcode: 167211**
Time : 6-30 PM (Participants are requested to join before 6-20 PM)

The Installation Guide for the software PYTHON, R and MATLAB

Installation of MATLAB For Windows

To Download the Free Trial - (for 30 days) -
Log in - <https://in.mathworks.com/campaigns/products/trials.html>
Moreover Check this Video Link-
https://www.youtube.com/watch?v=jloG_gleprU

Installation Link for R
<https://www.datacamp.com/community/tutorials/installing-R-on-windows-mac-os>

May visit For a Tutorial
<https://www.tutorialspoint.com>

Session: 2021-22

Programme- 1: Lecture Series

Topic - Some Topics in Functional Analysis

Date: 30th June to 3rd July, 2021

Topic: 1: Some Aspects of Dual Spaces

2: A Study on Reflexive Normed Spaces

3: Separability in Normed Spaces and Related Properties

Resource Person: Dr. Nilakshi Goswami, Associate Prof. Dept. of Mathematics, Gauhati University.

Target Group: PG Mathematics students

No of participants: 29

Programme- 3: Lecture Series

Topic - Topology

Date: 7th to 11th August, 2021

Resource Person: Dr. Santanu Acharyee, Dept. of Mathematics, Gauhati University.

Target Group: PG Mathematics students

No of participants: 29

Programme- 4: Workshop

Workshop on SageMath : An Open Source Free Software (For UG Students)

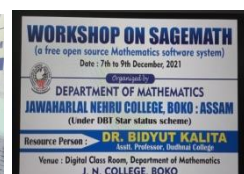
Organized by Mathematics Dept. under DBT Star Status Scheme

Date : 07 – 09th December, 2021

Total No of Participants : 54 students.

Resource Person : Dr. Bidyut Kalita, Assistant Professor of Dudhnai College

Some moments of the event:



Programme- 5: National Mathematics Day-2021

A day long programme Organized by Department of Mathematics, under DBT Star Status Scheme which includes a talk on 'Life and Works of Ramanujan' delivered by Dr. Dhira Kumar Das, a spot writing competition on 'Mathematics in everyday life' and an interesting Quiz competition on mathematics conducted by Dr. Dipankar Sarma.

Date : 22nd December, 2021

Venue: K K H seminar hall, J N College.

No of Participants: 200 (including school and college students).

Photos:



Programme- 6: EXPERT TALK AND INTERACTIVE SESSION

On Differential Equations as a Tool for Modelling of Physical Problems
An Inter Departmental Event Organized by Department of Mathematics, J. N. College
Under DBT Star Status Scheme.

Date: 30th December, 2021

Resource Person : Prof. Swaroop Nandan Bora, former HoD, Dept Math, I.I.T. Guwahati
Ms. Shiba Kandpal, Research Scholar, I.I.T. Guwahati
Ms. Shilpi Jain, Research Scholar, I.I.T. Guwahati

Participants: Teachers different departments and students of UG (5th Sem) and PG

No. of participants : 78

Some moments:



Programme- 7:

**Workshop on Competitive Examination in Mathematics: With special interest to
NET/SLET/GATE/Ph.D. Entrance**

Date: 03-04 January, 2022

No. of Participants: 76 M.Sc. students/research Scholars from J. N. College,
Gauhati University and Bhattadeb University.

Venue: Day1: J.N. College & Day 2 : Online

Resource Person : Dr. Hemen Dutta, Dept of Math, Gauhati University.

Some moments from this programme:



Programme- 8: International Day of Mathematics (Pi Day)

Date: 14-03-2022

No. of Participants :

Venue: Department of Mathematics, J. N. College.

Group Discussion on 'Mathematics Unites'

Some moments from this programme:



Programme- 9: 6- days lecture series

A six days long lecture series is organized by the Mathematics department from 9th to 14th May, 2022 under DBT Star Status Scheme for UG and PG students of the department.

The topics included in the series are:

Dynamical System

Fractal Geometry

Functional Analysis

Topology

R-Programming

Invited Resource Persons are :

Dr. Debashish Bhattacharya, Dept. of Mathematics, Gauhati University

Dr. Ranu Paul, Dept. of Mathematics, Gauhati University

Mr. Ripunjay Chaudhury, Dept. of Mathematics, Dudhnai College

Alumni of this department.

No. of Students Participated : 56

Some moments from this programme:

