

Annual Report of Mathematics Department 2020-2021 tenure under DBT-STAR COLLEGE SCHEME

This presentation includes all the enrichment and development done by the mathematics department under the aforementioned time period by the scheme granted by DBT-STAR COLLEGE.

Contents:

- 1.New Practical Introduced supported under the scheme.**
- 2.Equipment Procured.**
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- 4. Workshops and Seminars organized in the topical areas for students by the dept. supported under the scheme.**
- 5. Faculty Improvement Programs initiated for the faculty.**
- 6.Visit to industry and important labs of national eminence.**
- 7. Lectures delivered by the experts in their field of expertise.**
- 8. Outreach Activities.**
- 9. Training of Lab Manpower.**
- 10. Impact of The Star College Scheme.**
- 11. Budget Expenditure.**

New Practical Introduced

As Prescribed by experts in the department

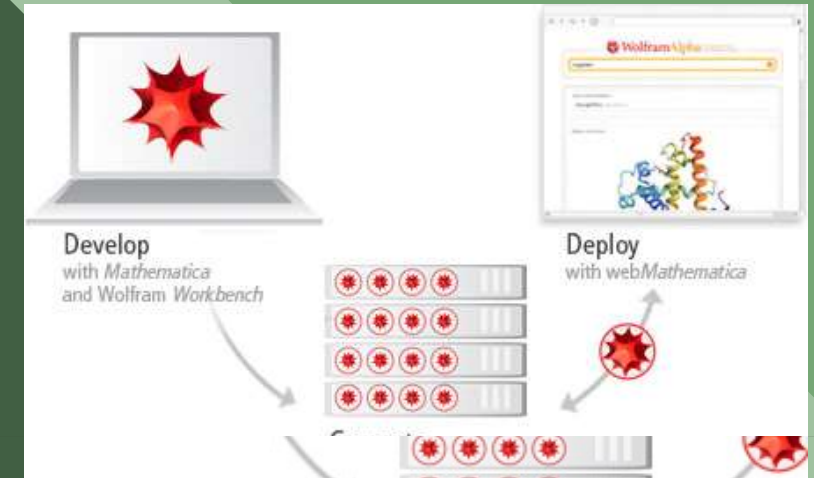
LaTeX

- ◉ LaTeX is one of the most important software designed to give full freedom to the authors of especially mathematical journals so that it is easy to write the inline and outline equations.
- ◉ It is one of the free all rounder mathematical software but it is not so user friendly as it requires its own syntaxes and thus requires proper training.
- ◉ During this period, our department organized many online classes discussing about the importance and the usage of LaTeX.
- ◉ Our students were easily able to grasp the concept and can use LaTeX as they wish.
- ◉ Many students also published many journals in foreign journals by usage of LaTeX as the primary text editor.



Mathematica

- Mathematica provides a single integrated, continually expanding system that covers the breadth and depth of technical computing—and seamlessly available in the cloud through any web browser, as well as natively on all modern desktop systems.
- With energetic development and consistent vision for three decades, Mathematica stands alone in a huge range of dimensions, unique in its support for today's technical computing environments and workflows.
- Our students were able to properly grasp the concept and now they can use Wolfram Mathematica for the technical computations.

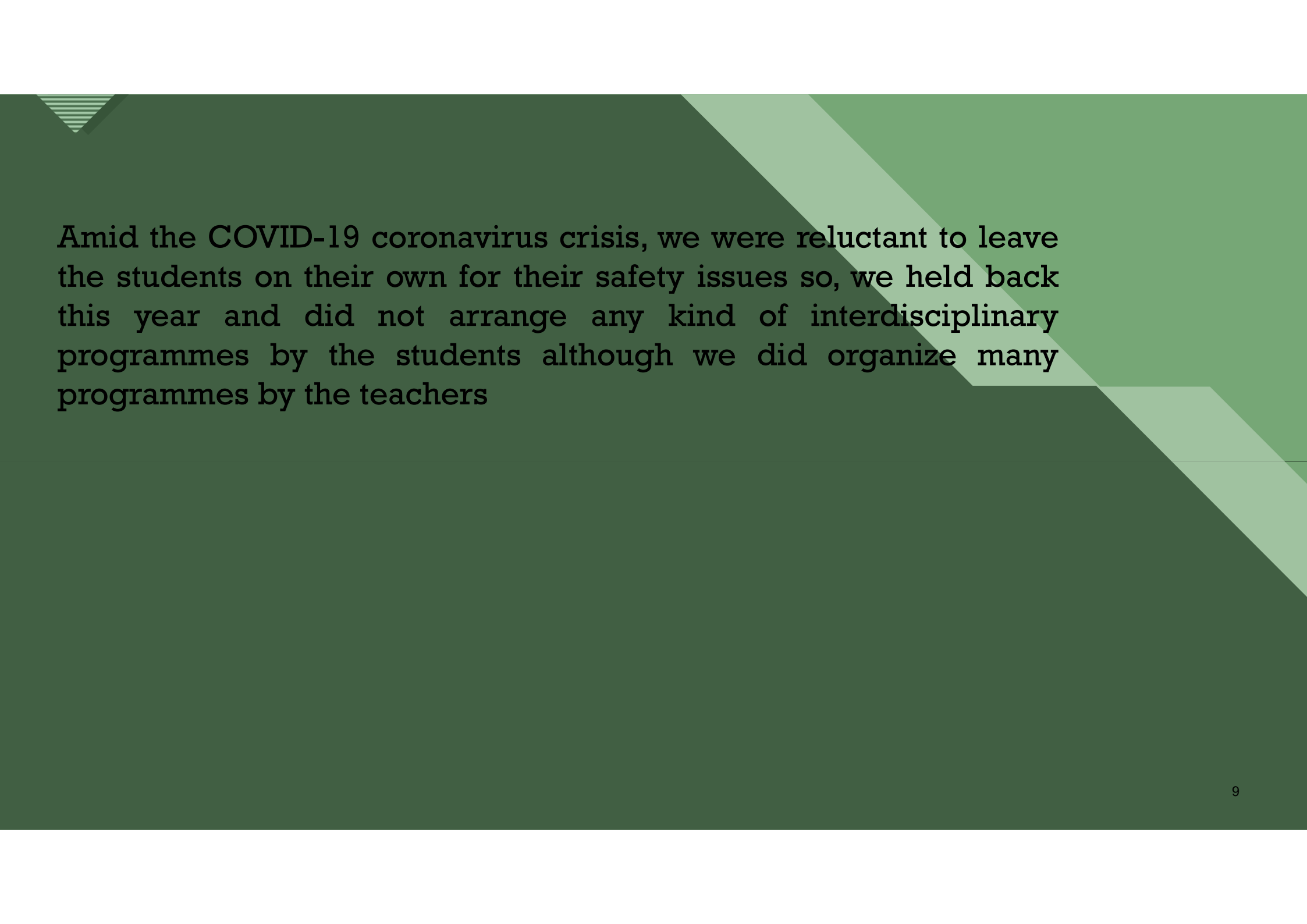


Equipment Procured

According to budget allocations

NON RECURRING			
25 DESKTOP COMPUTR	PRINTER	LAPTOP	ROUTER
EXTERNAL HDD	SWITCH	ANTI VIRUS	ACCESS POINT
PROJECTORS	3KVA UPS BATTERY		
RECURRING			
NETWORKING	MATHEMATICA	PDB PANEL	LOAD BALANCING ROUTER AND POE

Interdisciplinary Programmes



Amid the COVID-19 coronavirus crisis, we were reluctant to leave the students on their own for their safety issues so, we held back this year and did not arrange any kind of interdisciplinary programmes by the students although we did organize many programmes by the teachers

Workshops and Seminars Organized by the Department

The workshops and seminars organized by the department for the enrichment of the students are given below in the following table:

Date	Topic	Speaker
29th August 2020	One Day International Webinar on Mathematics and Mathematical Sciences Topic: Are We Prepared To Accept The Reality?	Prof. Ravi P. Agarwal, Texas A & M University-Kingsville.
30 th September, 2020	Induction Programme For the Newly admitted students of Mathematics of the college	Prof. Asok Kumar Nanda, Indian Institute of Science Education and Research- (IISER) Kolkata

The workshops and seminars organized by the department for the enrichment of the students are given below in the following table:

Date	Topic	Speaker
13 th November, 2020	Motivation Programme For the Newly admitted M.Sc. Mathematics 1st yr. students of the college	Prof Rajeeva Laxman Karandikar, Director, Chennai Mathematical Institute, H1 Sipcot IT Park, Siruseri, Kelambakkam
30 th March 2021	BASIC KNOWLEDGE ON PYTHON AND ITS APPLICATIONS	DR.MAYANKA AGARWAL,IIT PATNA

Faculty Improvement Programs initiated

The faculty improvement programs organized and attended by the faculty members of the department for their own enrichment are given below in the following table:

DATE	NAME OF THE FACULTY	PROGRAMME NAME	ONLINE/OFFLINE ORGANIZER
27-08-2020 TO 02-09-2020	DR.PRAVANJAN KUMAR RANA,ASSOCIATE PROFESSOR,RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	PYTHON 3.4.3	ONLINE,BARNAGAR COLLEGE,SORBHOGBARPETA,ASSAM
06-09-2020	DR.PRAVANJAN KUMAR RANA,ASSOCIATE PROFESSOR,RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	HISTORY OF MATHEMATICS	ONLINE- CALCUTTA MATHEMATICAL SOCIETY
24-08-2020 TO 30-08-2020	DR.PRAVANJAN KUMAR RANA,ASSOCIATE PROFESSOR,RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	LATEX	ONLINE-OVERLEAF ADVISOR PROGRAMME
05-10-2020 TO 09-10-2020	DR.PRAVANJAN KUMAR RANA,ASSOCIATE PROFESSOR,RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	CYBER SECURITY TECHNIQUES WITH APPLICATIONS	ONLINE-IIT,DHANBAD
21-09-2020 TO 25-09-2020	DR.PRAVANJAN KUMAR RANA,ASSOCIATE PROFESSOR,RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	ONLINE-WORKSHOP ON ALGEBRAIC TOPOLOGY	ONLINE-CALCUTTA UNIVERSITY

The faculty improvement programs organized and attended by the faculty members of the department for their own enrichment are given below in the following table:

DATE	NAME OF THE FACULTY	PROGRAMME NAME	ONLINE / OFFLINE ORGANIZER NAME
27-08-2020 TO 02-09-2020	DR.PARTHA RAY, ASST. PROFESSOR, RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	APPLIED MATHEMATICS	ONLINE,,MAULANA ABUL KALAM AZAD UNIVERSITY
27-08-2020 TO 02-09-2020	DR. SUJAY KR.BISWAS, ASST. PROFESSOR, RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	APPLIED MATHEMATICS	ONLINE,,MAULANA ABUL KALAM AZAD UNIVERSITY
23-7-2020 TO 24-07-2020	DR. SUJAY KR.BISWAS, ASST. PROFESSOR, RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	ANALYSIS AND LINEAR ALGEBRA	ONLINE-DHSK COLLEGE,ASSAM
25-11-2020 TO 24-12-2020	DR. BIKASH CHAKRABORTY, ASST. PROFESSOR, RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	OP	ONLINE- NBU
08-01-2021 TO 21-01-2021	DR. BIKASH CHAKRABORTY, ASST. PROFESSOR, RAMAKRISHNA MISSION VIVEKANANDA CENTENARY COLLEGE	RC	ONLINE- NBU

**Lectures delivered by the experts in
their field of expertise**

Name of Experts	Relevant field of Expertise
Prof. Ravi P. Agarwal, Texas A & M University-Kingsville.	NUMERICAL ANALYSIS, DIFFERENTIAL AND DIFFERENCE EQUATIONS ,FIXED POINT THEOREM
Prof. Asok Kumar Nanda, Indian Institute of Science Education and Research- (IISER) Kolkata	STATISTICS, INFORMATION THEORY, RELIABILITY THEORY
Prof Rajeeva Laxman Karandikar, Director, Chennai Mathematical Institute, H1 Sipcot IT Park, Siruseri, Kelambakkam	STATISTICS AND PSEPHOLOGY
DR. MAYANKA AGARWAL, IIT PATNA	802.11 WIRELESS NETWORK, WI-FI SECURITY AND DISCRETE EVENT MODELIN

Outreach Activities

FOR COLLEGE STUDENTS

THE DEPARTMENT OF MATHEMATICS HAD ORGANIZED AN INTERDEPARTMENTAL WEBINAR ON THE USAGE OF LATEX FOR ALL THE STUDENTS OF DIFFERENT SUBJECTS ON 7TH OF APRIL 2021.

- For School Students
- The Department has organized a interschool webinar on Vedic Mathematics on the 10th April 2021 with the students of school “Panpur Makhanlal High school”, “Ramsankarpur High School”, “Jatia High School”, “Burdwan Municipal High School” and “Taherpur Netaji High School” of Classes 11 and 12.



RAMAKRISHNA MISSION VIVEKANANDA
CENTENARY COLLEGE
(An Autonomous College)
P.O. RAHARA, KOLKATA-700118
WEST BENGAL, INDIA
Centre with Potential for Excellence (CPE)

Webinar on Interdepartmental Enrichment Program

Under DBT Star College Scheme
On 7th April, 2021 (11am – 4.00pm)

Program Schedule:

11am – 11.40 am: Dr. Kalyan Brata Chatterjee, Physics,
RKMVCC (Topic :The art of estimation)
11.50am – 12.30 pm : Dr. Anirban Kundu, Botany,
RKMVCC (Topic: Protein bioinformatics – Structural
dynamics and properties)
12.40pm – 1.20 pm: Dr. Sougata Sarkar, Chemistry,
RKMVCC (Topic: Chemistry of Buffer Solution)
1.30 pm – 2.30 pm : LUNCH
2.30 pm – 3.10 pm: Dr. Subham Mookherjee, Zoology,
RKMVCC (Topic: Environmental water sources and
diarrhea)
3.20 pm – 4.00 pm: Dr. Phonindra Nath Das,
Mathematics (Topic: LaTeX for scientific documentation)

Convenor: Swami Vedanuragananda

Participants login the meeting through online link on 7th April,
2021 at 10.45am (Only the selected students from each
department can login the meeting).

Link: meet.google.com/mjr-finn-amf



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One Day Outreach Program for School Students on

Secrets of Vedic Mathematics

Organized by Department of Mathematics

Under DBT Star College Scheme

On 10th April, 2021, at 10 A. M. (IST)

Speaker:

Dr. Abhishek Kanti Biswas, Assistant Professor of
Mathematics, Ramakrishna Mission Vivekananda Centenary College. Mobile: 9002512009.

Join the Google Meet at: <https://meet.google.com/fgm-ybqv-yfp>

School name of the Participants:

- Panpur Mahanlal High school (H.S.)*, Kankinara-Rafipur Rd, Bhatpara, N 24-Pgs,
West Bengal 743126.
- Ramsankarpur High School (H. S.)*, Fulsara Road, Ramshankarpur, Gopalnagar, West
Bengal 743290.
- Jatia High School (H.S.)*, Jatia , Halisahar, N-24-Pgs- 743135.
- Burdwan Municipal High School*, Curzon Gate, Grand Trunk Rd, Bardhaman, West
Bengal 713101.
- Taherpur Netaji High School (H.S.)*, Taherpur, Nadia, West Bengal-741159.

Impact of The Star College Scheme

Statistics of Students who got chances in various institutes

Sl. No.	Name	Qualified Entrance Exam	Institutions Where he was selected for Final Admission	Presently Studying at	Course Name
1	SUDIP DOLAI	TIFR, JAM(Rank- 59)	IIT KANPUR,IISER MOHALI,IISER KOLKATA(waiting list)	IIT KANPUR	M.Sc. in Mathematics
2	AVAS BANERJEE	TIFR,JAM (Rank-657),CMI,ISI, RKMVERI	KERALA SCHOOL of MATHEMATICS,IISER TVM, RKMVERI,ISI(wai-ting list)	IISER TVM	Integrated PhD in Mathematics (MS + PhD)
3	NILADRI SEKHAR PATRA	JAM(Rank – 572), RKMVERI	IISER TVM,NIT ROURKELA, RKMVERI	IISER TVM	Integrated PhD in Mathematics (MS + PhD)
4	PRATAP DEY	JAM(Rank – 873)	IIT KANPUR	IIT KANPUR	M.Sc. in Mathematics
5	ARIJIT SAHA	JAM(Rank – 307)	IIT MADRAS	IIT MADRAS	M.Sc. in Mathematics
6	ABHIJIT GAYEN	TIFR,JAM (Rank – 312)	IIT GUWAHATI	IIT GUWAHATI	M.Sc. in Mathematics & Computing

Statistics of Students who got chances in various institutes

Sl. No.	Name	Qualified Entrance Exam	Institutions Where he was selected for Final Admission	Presently Studying at	Course Name
6	ABHIJIT GAYEN	TIFR,JAM (Rank – 312)	IIT GUWAHATI	IIT GUWAHATI	M.Sc. in Mathematics & Computing
7	SHAYAK HALDER	JAM(Rank – 977)	IIT GUWAHATI	IIT GUWAHATI	M.Sc. in Mathematics & Computing
8	NAYAN GIRI	JAM(Rank – 253)	IIT KANPUR	IIT KANPUR	M.Sc. in Mathematics
9	SANGRAM SATPATHI	JAM(Rank – 474)	IISER TVM,IIT MANDI,NIT WARANGAL	IISER TVM	Integrated PhD in Mathematics (MS + PhD)
10	ALAPAN GHOSH	JAM(Rank - 384), RKMVERI	IIT PATNA, RKMVERI	RKMVERI	M.Sc. in Mathematics
11	JYOTIRMOY DAS	JAM(Rank – 1248)	NIT ROURKELA	NIT ROURKELA	M.Sc. in Mathematics

Statistics of Students who got chances in various institutes

Sl. No.	Name	Qualified Entrance Exam	Institutions Where he was selected for Final Admission	Presently Studying at	Course Name
12	DEBADRI BERA	RKMVERI	RKMVERI	RKMVERI	M.Sc. in Mathematics
13	SUMAN CHATTERJEE	RKMVERI	RKMVERI	RKMVERI	M.Sc. in Mathematics
14	HRITHIK NANDI	JAM (Rank – 1334), RKMVERI	RKMVERI	RKMVERI	M.Sc. in Mathematics
15	SANJU GHOSH	JAM(Rank – 1429), BHU,VBU,UoH, RKMVERI	UoH,BHU,VBU	UoH	M.Sc. in Mathematics
16	PRITAM HAZRA	JAM(Rank – 1935)	WBSU	WBSU	M.Sc. in Statistics
17	ARINDAM DAS	JAM(Rank- 1469), BHU	BHU	BHU	M.Sc. in Mathematics

Statistics of Students who got chances in various institutes

18	KINGSHUK CHATTERJEE	RKMV (Vidyamandira)	RKMV	RKMV	M.Sc. in Mathematics
19	RAMKRISHNA KHANRA	RKMV, RKMVERI	RKMV	RKMV	M.Sc. in Mathematics
20	SANDIP GAYEN	JAM(Rank- 1498), RKMV,RKMVERI	RKMV	RKMV	M.Sc. in Mathematics
21	JAYDIP GAYEN	JAM(Rank- 2056)	RKMVCC	RKMVCC	M.Sc. in Mathematics
22	ABHISHEK ADAK	UoH,BHU	UoH,BHU	UoH	M.Sc. in Mathematics
18	KINGSHUK CHATTERJEE	RKMV (Vidyamandira)	RKMV	RKMV	M.Sc. in Mathematics
19	RAMKRISHNA KHANRA	RKMV, RKMVERI	RKMV	RKMV	M.Sc. in Mathematics

Statistics of Students who got chances in various institutes

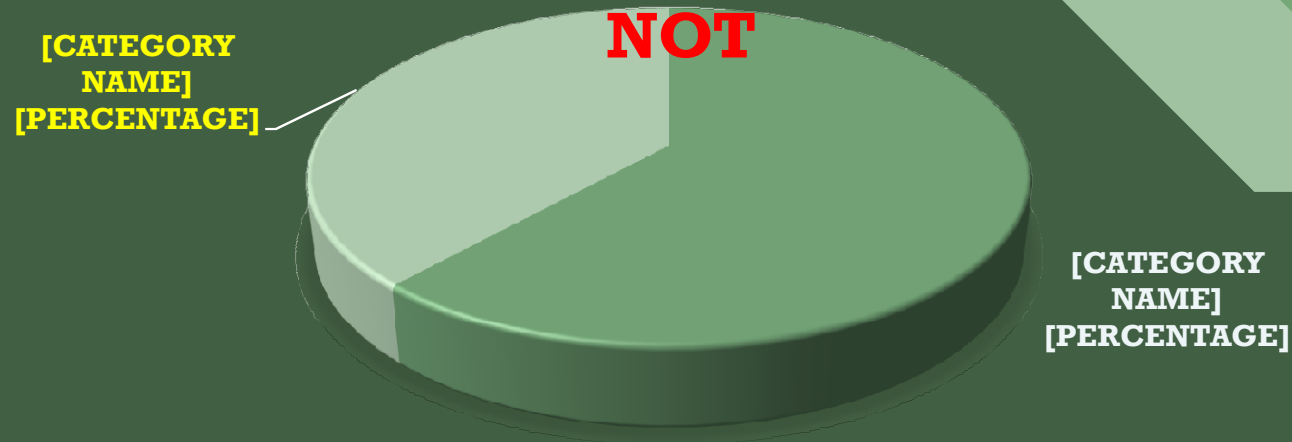
Sl. No.	Name	Qualified Entrance Exam	Institutions Where he was selected for Final Admission	Presently Studying at	Course Name
20	SANDIP GAYEN	JAM(Rank- 1498), RKMV,RKMVERI	RKMV	RKMV	M.Sc. in Mathematics
21	JAYDIP GAYEN	JAM(Rank- 2056)	RKMVCC	RKMVCC	M.Sc. in Mathematics
22	ABHISHEK ADAK	UoH,BHU	UoH,BHU	UoH	M.Sc. in Mathematics
23	SUDIP BHOWMIK	UoH,DU,RKMVERI	UoH,RKMVERI (waiting list)	UoH	M.Sc. in Mathematics
24	RITAM SINHA	ICT Mumbai	ICT Mumbai, RKMVCC	RKMVCC	M.Sc. in Mathematics
25	PRADIP BISWAS		RKMVCC	RKMVCC	M.Sc. in Mathematics

Statistics of Students who got chances in various institutes

Sl. No.	Name	Qualified Entrance Exam	Institutions Where he was selected for Final Admission	Presently Studying at	Course Name
26	AKSHAY SENAPATI		RKMVCC	RKMVCC	M.Sc. in Mathematics
27	SOUVIK BERA		RKMVCC	RKMVCC	M.Sc. in Mathematics
28	PRIYABRATA SUTRADHAR		RKMVCC	RKMVCC	M.Sc. in Mathematics
29	SNEHASIS SARKAR		RKMVCC	RKMVCC	M.Sc. in Mathematics

- ◉ List isn't based on merit
- ◉ DU= DELHI UNIVERSITY,
- ◉ UoH= UNIVERSITY of HYDERABAD,
- ◉ BHU= BENARAS HINDU UNIVERSITY,
- ◉ VBU =VISWA BHARATI UNIVERSITY,
- ◉ WBSU=WEST BENGAL STATE UNIVERSITY,
- ◉ RKMVERI=RAMAKRISHNA MISSION VIVEKANANDA EDUCATIONAL RESEARCH INSTITUTE,
- ◉ CMI=CHENNAI MATHEMATICAL INSTITUTE

NUMBER OF STUDENTS WHO GOT CHANCES VS THOSE WHO DID



- Those students who did not get chances are currently preparing for other competitive examinations and exploring their chances.

Budget Expenditure

The budget expenditure is given in tabular form:

Recurring

Item	Price
25 desktop computer	721875
printer	13440
laptop (2)	78120
router	11550
external HDD	5355
switch	4830
anti virus	6490
access points	64523
Projectors (2)	80872
3kva UPS battery	17400
TOTAL=	1004455

Non-Recurring

Item	Price
Networking	33217
mathematica	85000
PDB panel	168000
load balancing router and POE	24570
TOTAL=	310787

Future Activities

The Following Activities are proposed

- Students will be enriched by experienced visiting faculty members to develop them on their respective fields and encourage them to study and research in mathematics.
- The department had set a goal to make teaching and learning environment more innovative and attractive by usage of high level software.
- The syllabus and the curriculum of the students are refurbished which are intended for their preparations in various competitive examinations and make learning more productive by cutting of useless topics.
- More workshops and webinars are to be organized for more interaction of students and a creation of a student friendly environment.

- **More faculty development programs are intended to be organized to ensure quality teaching.**
- **Students will get to visit various eminent organizations in India which are particularly excelling on the field of mathematics to build their communication skills.**
- **Under the COVID-19 pandemic conditions, there will be sharp change from offline to online method of learning so to make the online environment more perceivable to the students, student friendly applications are arranged and premium subscriptions are taken so that students may not miss the scope of classroom environment by bringing everything to their device from Q n A sessions , Concept Clearing, Group Discussions and regular assesments.**

The background is a solid dark green. On the left side, there is a large triangular area filled with a pattern of fine, parallel, light green diagonal lines. This patterned area is bordered by a solid dark green triangle that points towards the top right corner.

Thank You