

# **Annual Report of Mathematics Department 2021-2022 tenure under DBT-STAR COLLEGE SCHEME**

**This presentation includes all the enrichment and development done  
by DR.PRAVANJAN KUMAR RANA, mathematics department under the  
aforementioned time period by the scheme granted by DBT-STAR  
COLLEGE.**

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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.**
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# **New Practical Introduced**

**As Prescribed by experts in the department**

# Scientific writing using LATEX

- **Basic advantages of using LATEX for scientific writing were introduced.**
- **“How to write a complete article” were teach step by step. Students were learn the process in hands.**
- **Almost each and every elements required in an article were teach with examples, like handling title & author/s details, abstract section, sections, subsection, inclusion of diagram, creation of table, labeling reference etc.**
- **At the end a test were conducted to understand their learning.**



# Programming Python

- **Basic Python were introduced from its installation to write basic programming.**
- **Basic knowledge about data were discussed.**
- **Some arithmetic and algebraic calculations were teach using inbuilt function and user defined function**
- **Basic plotting were introduced for data representation and visualization.**
- **Import and use of external data were discussed.**

# Introduction to MATLAB

- **A brief overview of MATLAB were introduced.**
- **Using various example, the uses of this software were discussed.**
- **How to use built in function and how to create user defined function were teach in workshop environment.**
- **Basic plotting, solving various mathematical problem numerically were discussed.**
- **Importing data from external source and their uses were discussed with example.**

**INTERDISCIPLINARY/INTERDEPARTMENTAL  
PROJECTS BY THE STUDENTS.**

**ALMOST EVERY 3<sup>rd</sup> year students HAVE completed AT LEAST ONE project work on different BRANCHES of mathematics ,AND CONSEQUENTIALLY MOST HAD SOME social impact. The link REFERRING TO ALL THOSE project work IS GIVEN:**

**[https://docs.google.com/spreadsheets/d/1Tcvotp62eVErQ4MpFsQoTd\\_du\\_2Km2VIByT87WKrBm4/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1Tcvotp62eVErQ4MpFsQoTd_du_2Km2VIByT87WKrBm4/edit?usp=sharing)**

**THE NOTABLE ONES are given here :**

geometric representation of 4d figures;

geometric representation of rUbik's cubes;

application of burnside's lemmas into the real life problems;

**WORKSHOPS AND SEMINARS ORGANIZED IN THE  
TOPICAL AREAS FOR STUDENTS BY THE DEPT.  
SUPPORTED UNDER THE SCHEME.**



**Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata-700118**  
**A NATIONAL SEMINAR ON “CIVIL SERVICES AS CAREER OPTION AND HOW TO START PREPARING?”**  
**UNDER DBT-STAR COLLEGE SCHEME ORGANISED BY THE DEPARTMENT OF MATHEMATICS**

Date: 12<sup>th</sup> March, 2022, Time: 03.00 P.M

**Invited  
Speaker**



**Sri Amit Kumar Bose,**  
**An eminent faculty in the field of Civil Services Coaching**

**Registration Link**

<https://forms.gle/5h1q91FHfg8cwTyS6>

Registration is Free

Last date of Registration: 9<sup>th</sup> March, 2022

Contact: +91 9433737733, +91 9874443433



**Patron: Swami Kamalasthananda,** Principal,  
Ramakrishna Mission Vivekananda Centenary College, Rahara



**Swami Vedanuragananda,**  
Coordinator, DBT- STAR College Scheme



**Dr. Pravanjan Kumar Rana,**  
Associate Professor and Head of the Department

**Members of the Webinar Organizing Committee**

**Dr. Partha Ray,** Assistant Professor

**Dr. Abhishek Kanti Biswas,** Assistant Professor

**Dr. Bikash Chakraborty,** Assistant Professor

**Dr. Kshitish Ch. Mistri,** Assistant Professor, Convenor

**Dr. Phonindra Nath Das,** Assistant Professor

**Mr. Soumya Patra,** SACT-I

**Prof. Amit Biswas,** (Management appointed)

**Prof. P. C. Pal** (Management appointed)





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**Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata-700118**  
**Uses of Mathematical Software for interdisciplinary research UNDER DBT-STAR COLLEGE**  
**SCHEME** ORGANISED BY THE DEPARTMENT OF MATHEMATICS

Date: 25<sup>th</sup> March, 2022, Time: 04.00 P.M

**Speaker**

**Dr. Phonindra Nath Das**

Assistant Professor, Ramakrishna Mission Vivekananda Centenary  
College, Rahara



**Patron: Swami Kamalasthananda, Principal,**  
Ramakrishna Mission Vivekananda Centenary College, Rahara



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**Dr. Pravanjan Kumar Rana,**  
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**Members of the Department**

**Dr. Partha Ray,** Assistant Professor  
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**Dr. Bikash Chakraborty,** Assistant Professor  
**Dr. Kshitish Ch. Mistri,** Assistant Professor  
**Dr. Phonindra Nath Das,** Assistant Professor  
**Mr. Soumya Patra,** SACT-I  
**Prof. Amit Biswas,** (Management appointed)  
**Prof. P. C. Pal** (Management appointed)



**Ramakrishna Mission Vivekananda  
Centenary College, Rahara and  
Current Affairs Review jointly organises**

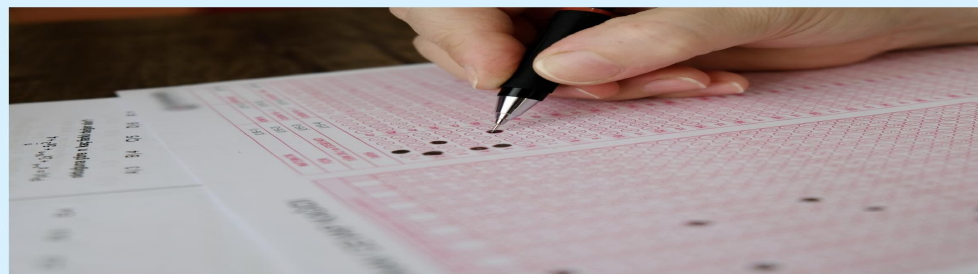
**Workshop on:**

**Understanding the syllabus of IAS Examination  
& Analysis of previous years' question papers**

**A DBT-STAR College  
Programme** organised by the  
Department of Mathematics

**Date: 23rd April 2022**

**Time: 2:00PM**



**Speaker: Sri Amit Kumar Bose**

(An eminent faculty in the field of Civil Services Coaching.)

**You are cordially invited.**

 **#9874443433**

 **9073718148**

 **support@currentaffairsreview.com**

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# **Faculty Improvement Programs initiated**

Name of Experts	TITLE
<b>PROF. KALYAN CHAKRABORTY,DIRECTOR OF KERALA SCHOOL OF MATHEMATICS, UNDER DBT-STAR COLLEGE SCHEME ,INDUCTION PROGRAMME,FOR NEWLY ADMITTED UG STUDENTS.</b> <b>25-09-2021</b>	<b>HIGHER STUDIES IN MATHEMATICS: PROSPECTS AND CHALLENGES.</b>
<b>PROF. GADADHAR MISRA,PROFESSOR OF MATHEMATICS, IISC-BANGALORE, INDUCTION PROGRAMME FOR NEWLY ADMITTED PG STUDENTS, UNDER DBT STAR COLLEGE SCHEME</b> <b>08-10-21</b>	<b>THE GAMES THAT MATHEMATICIANS PLAY</b>
<b>Prof Rajeeva Laxman Karandikar, Director, Chennai Mathematical Institute, H1 Sipcot IT Park, Siruseri, Kelambakkam, NATIONAL MATHEMATICS DAY UNDER DBT STAR COLLEGE SCHEME.</b> <b>22-12-2021</b>	<b>STATISTICS AND PSEPHOLOGY</b>
<b>DR. MAYANKA AGARWAL, IIT PATNA</b> <b>UNDER DBT STAR COLLEGE SCHEME.</b> <b>10-01-2022</b>	<b>802.11 WIRELESS NETWORK,WI-FI SECURITYAND DISCRETE EVENT MODELIN</b>

# **VISITS TO INDUSTRY AND IMPORTANT LABS OF NATIONAL EMINENCE**



**Our departmental staff Dr. Kshitish Mistri has visited IIT Indore for visiting their labs and tried to understand their whole infrastructure so that it can be implemented on our department too.**





# **Outreach Activities**

- **Students from 5 schools participated in a one day science promotion programme organized by the college. Total 50 students with teachers visited our department.**
- **The schools those have participated are:**
- **Sodepur Chandrachur College**
- **Madhyamgram High School**
- **Madhyamgram Girls' School**
- **Bhabanath Girls' School**
- **TakiGovt School for Boys.**











# **TRAINING OF LAB MANPOWER**

**According to the norms of the DBT-STAR College scheme, for the maintainance of the computer lab, a non-teaching staff named Utpal Bhaumik has been recruited, currently undergoing training from the departmental HOD of mathematics, Dr. Pravanjan Kumar Rana.**



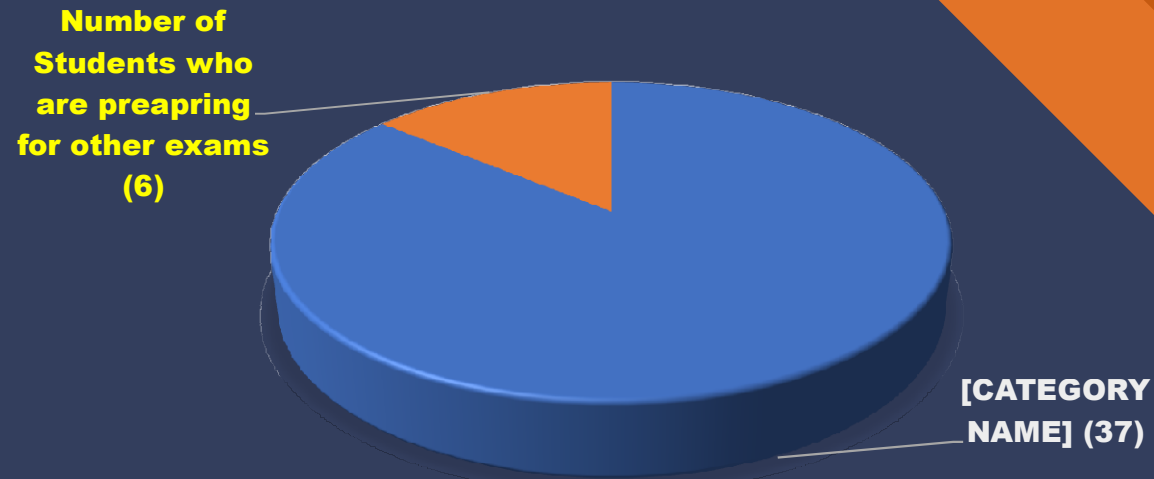
## Training of Lab Manpower.



# **Impact of The Star College Scheme**

<b>Year</b>	<b>Number of 3<sup>rd</sup> year students appeared - in the final examination</b>	<b>Students Passed</b>	<b>Those who got chances in various institutes for M.Sc. and integrated Ph.D.</b>	<b>Students preparing for other examinations (either UPSC or WBCS ,etc.)</b>
<b>2021-22</b>	<b>43</b>	<b>100%</b>	<b>37</b>	<b>6</b>

**NUMBER OF STUDENTS WHO GOT CHANCES IN VARIOUS INSTITUTES VS  
THOSE WHO PREPARING OTHER COMPETITIVE EXAMS**



- Only 6 students are currently preparing for other competitive examinations and WBCS,UPSC etc.

# Budget Expenditure

**IN THE LAST YEARS ,THE amount rs. 300,000/-  
received from dbt star college.**

**the amount rs. 300,000/- utilised COMPLETELY IN CONSUMABLE  
AIDS AND DIFFERENTS SEMINARS and workshops.**

# **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.**





THANK YOU