

Report on  
Two-Day International Webinar on Mathematics: Needs & its Scope in Sciences,  
September 18-19, 2021



## TWO - DAY INTERNATIONAL WEBINAR ON MATHEMATICS: NEEDS & ITS SCOPE IN SCIENCES



18<sup>th</sup> September, 2021  
2:00 pm - 4:30 pm



19<sup>th</sup> September, 2021  
12:00 pm - 2:30 pm

Organized by  
**Dept. of Mathematics & IQAC**  
**Patharkandi College**  
Patharkandi-788724, Karimganj, Assam  
in association with  
**Gonit Sora**

### Organizing committee

- Chairperson: Dr. Monjurul Hoque, Principal, Patharkandi College
- Co-Ordinator: Dr. Munmi Saikia, Assistant Professor, HOD Mathematics
- Co-Ordinators: Dr. Dimpi Paul, Assitant Professor, Dept. of Physics  
Dr. Pradip Doley, Assistant Professor, Dept. of Botany
- Members: All Science Stream Faculties

### Important Details

- Free Registration: [SIGN UP](#) 
- Last Date of registration: 17<sup>th</sup> September 2021.
- E-certificates will only be provided to registered participants who remain active for both the days of the webinar and submit a feedback form.
- Meeting Link will be shared in the WhatsApp Group only.
- The program will be conducted through zoom.



WhatsApp Group

### Moderator

Dr. Manjil P. Saikia  
Managing Editor, Gonit Sora

### Contact Persons

- Dr. Munmi Saikia (7002545398),
- Biman Kanti Nath (9854978105)
- Dr. Abhijit Dutta (7086879737)
- Dr. S. Purkayashtha (8638423160)

### INVITED SPEAKERS



**Dr. Debashish Sharma**  
Gurucharan College, Silchar



**Prof. Biswajit Basu**  
Trinity College, Dublin



**Prof. Rukmini Dey**  
ICTS, Bengaluru



**Prof. Dibyajyoti Bhattacharjee**  
Assam University, Silchar

## About the College

Patharkandi College is a premier institute of higher learning in southern Assam. The college, established in 1990 is recognised under 2(f) and 12(b) of the UGC Act, 1956 and is permanently affiliated to Assam University Silchar. This college offers UG Programmes in Arts and Science. Situated on the foothills of Rajbari, Patharkandi near Indo - Bangladesh border, this college is playing a significant role for last two and half decades in the field of Higher Education of this remote region.

With over two thousand intake capacity and excellent backing of the on-campus support services this provincialised college under the Government of Assam, provides quality education to the students from all the three districts of Barak Valley of Assam and the neighbouring states of Mizoram, Manipur, Nagaland and Tripura. Patharkandi College has twelve departments, thirty faculty members drawn from the best pool of the country and over fifteen non-teaching support staff always ready to facilitate the academics.

## About the Department

The Department of Mathematics came into being in 2020, with the introduction of the Science Stream in Patharkandi College. The department offers three year B.Sc. (Honours & General) courses under the Assam University CBCS curriculum. It consists of 03 highly qualified faculty members to make sure the best education is imparted to the students. The faculty members are also actively involved in research and carrying out projects.

The students are provided with ample opportunities to develop the attitude and ability to apply mathematical methods and ideas in a wide variety of careers in education, business, industry or government. They are motivated to handle seminars and participate in group discussions. Apart from emphasizing consistent and good academic performance, the department encourages participation of students in curricular and co-curricular activities to bring out the best in them.

## Organizing Committee

### Chairperson

Dr. Monjurul Hoque  
Principal, Patharkandi College  
Patharkandi, Assam

### Co-ordinator

Dr. Munmi Saikia  
Asstt. Prof. & Head, Department of  
Mathematics  
Patharkandi College, Patharkandi, Assam

### Co-coordinators

Dr. Dimpi Paul  
Asstt. Prof., Department of Physics  
Patharkandi College, Patharkandi, Assam

Dr. Pradip Doley

Asstt. Prof., Department of Botany  
Patharkandi College, Patharkandi, Assam

### Members

All faculty members of the Science Stream,  
Patharkandi College, Patharkandi, Assam

## For any query, please contact:

Dr. Munmi Saikia [Mob.: 7002545398]  
*General query*

Biman Kanti Nath [Mob.: 9854978105]  
*Query on Registration & Feedback*

Dr. Dimpi Paul [Mob.: 9707735630]  
*Query on e-Certificates*

## Two-day International Webinar on MATHEMATICS: NEEDS & its SCOPE in SCIENCES

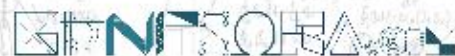
18 - 19 September 2021

organized by

Department of Mathematics  
& IQAC, Patharkandi College,  
Patharkandi, Assam.



in association with



## How to apply

Interested participants can register for the Webinar through the link:

<https://bit.ly/3kXWW7a>



## Registration details

- Registration is FREE.
- The registered participants are requested to join the WhatsApp group (link below) to receive regular updates on the webinar.  
<https://bit.ly/3jLzURF>
- Webinar will be conducted through the ZOOM platform. The details of the webinar will be shared in WhatsApp group only.
- The registered participants are requested to download the ZOOM software or mobile application from the following link:  
<https://zoom.us/download>
- e-Certificates will be provided only to those registered participants who remain active for the entire duration of the webinar.

## Registration deadline

17 September 2021

## About the Webinar

The aim behind organizing this webinar is to motivate and to ignite students' enthusiasm for learning Mathematics and to understand the importance of Mathematics through application in various fields of Science. This webinar proposes to introduce Mathematics as a cutting edge technique in numerous fields of interdisciplinary sciences. For instance, in the present era data science finds its application in almost every branch of science and mathematics being at the very core of it manifests in an obvious way. The present webinar comprising four sessions spanning across two days would prepare a student right from the scratch to the state of the art techniques. The speakers, being experts in their own field of research, would share their experience in a way that would motivate prospective researchers to pursue their career in the field of research. We firmly believe that this webinar would pave the way for active research in any area of interdisciplinary sciences.

## Target audience

Higher Secondary/ UG students as well as the research enthusiasts.

## INVITED SPEAKERS



**Dr. Debasish Sharma**  
Asstt. Prof., Department of Mathematics,  
Gurucharan College, Silchar, Assam, India



**Prof. Biswajit Basu**  
Professor, School of Engineering,  
Trinity College, Dublin, Ireland



**Prof. Rukmini Dey**  
Professor, International Centre for Theoretical  
Sciences (ICTS), Bengaluru, Karnataka, India



**Prof. Dibyajyoti Bhattacharjee**  
Professor, Department of Statistics,  
Assam University, Silchar, Assam, India



Two-Day International Webinar on  
**MATHEMATICS: NEEDS & ITS SCOPE IN SCIENCES**

**PROGRAMME SCHEDULE**

**SEPTEMBER 18 – 19, 2021**

**DAY – 1 :: SEPTEMBER 18, 2021**

**MODERATOR:** Dr. Manjil P. Saikia, Post-Doctoral Research Associate, Cardiff University, United Kingdom & Managing Editor, GONIT SORA

**CO-ORDINATOR:** Dr. Munmi Saikia, Head, Department of Mathematics, Patharkandi College, Patharkandi

02:00 PM	Coordinator begins the programme	
02:02 PM	Address by <b>Dr. Monjurul Hoque, Principal, Patharkandi College, Patharkandi.</b>	2 mins
02:05 PM	Opening remark by Guest of honor <b>Prof. Sanjib Sengupta, Head, Department of Mathematics, Assam University, Silchar, Assam</b>	7 mins
02:13 PM	Moderator starts the Session I with a brief introduction of the speaker	2 mins
<b>SESSION - I</b>		
02:15 PM	<i>Topic: Mathematics - the most used but the least acknowledged</i> <i>Speaker:</i> Dr. Debashish Sharma, Assistant Professor, Department of Mathematics, Gurucharan College, Silchar, Assam, India	50 mins (Talk) + 10 mins (Q & A)
03:25 PM	Moderator starts the Session II with a brief introduction of the speaker	2 mins
<b>SESSION - II</b>		
03:27 PM	<i>Topic: Mathematics and the Ocean</i> <i>Speaker:</i> Prof. Biswajit Basu Professor, Civil Struct & Env. Eng., Trinity College, Dublin, Ireland	50 mins (Talk) + 10 mins (Q & A)



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**MATHEMATICS: NEEDS & ITS SCOPE IN SCIENCES**

**PROGRAMME SCHEDULE**

**SEPTEMBER 18 – 19, 2021**

**DAY – 2 :: SEPTEMBER 19, 2021**

**MODERATOR:** Dr. Manjil P. Saikia, Post-Doctoral Research Associate, Cardiff University, United Kingdom & Managing Editor, GONIT SORA

**CO-ORDINATOR:** Dr. Munmi Saikia, Head, Department of Mathematics, Patharkandi College, Patharkandi

12:00 PM	Co-Coordinator (Dr. Dimpi Paul, Assistant Professor, Dept. of Physics, Patharkandi college) begins the programme	
12:02 PM	Moderator starts the Session III with a brief introduction of the speaker	2 mins
<b>SESSION - III</b>		
12:05 PM	<i>Topic: Mathematics is all around us</i> <i>Speaker: Prof. Rukmini Dey, Professor</i> International Centre for Theoretical Sciences, Bengaluru, India	50 mins (Talk) + 10 mins (Q & A)
01:15 PM	Moderator starts the Session IV with a brief introduction of the speaker	2 mins
<b>SESSION - IV</b>		
01:17 PM	<i>Topic: Quantifying the Pressure Experienced by Team batting second in limited over cricket matches</i> <i>Speaker: Prof. Dibyojyoti Bhattacharjee</i> Professor, Dept. of Statistics, Assam University, Silchar, Assam, India	50 mins (Talk) + 10 mins (Q & A)
02:17 PM	Valedictory Session	

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**September 18-19, 2021**

The Department of Mathematics & Internal Quality Assurance Cell (IQAC), Patharkandi College, Patharkandi, Karimganj-788724, Assam in association with Gonit Sora organized the Two-day international webinar on *Mathematics: Needs & Its Scope* in Sciences from September 18-19, 2021. In the webinar around 200 participants of different categories of students from High school level to Research enthusiasts, Teachers & Faculty members from many prestigious institutions from all around the country and abroad have actively participated. The first day of the programme started with the inaugural ceremony, where Prof. Sanjib Sengupta, Professor & Head, Department of Mathematics, Assam University, Assam, India graced the occasion as the guest of honor and gave the opening remark. The days have been segmented by two sessions with four talks by four esteemed speakers from renowned institutions of the country & abroad. In the first day, Speakers present during session I and II are Dr. Debashish Sharma, Assistant Professor, Department of Mathematics, Gurucharan College, Silchar, Assam, India and Prof. Biswajit Basu, Professor, Civil Struct & Env. Eng., Trinity College, Dublin, Ireland. The topic of discussion of Dr. Debashish Sharma was "*Mathematics is mostly used but least acknowledged*", whereas, Prof. Biswajit Basu, gave lecture on "*Mathematics and the Ocean*". They gave valuable insights on the use of mathematics towards numerical encryption of messages, analysis of coded values, interesting tricks of factorization and impact of mathematics towards study of water wave and predicting climate change with various examples of real-life situations relating to issues of Flood, Tsunami etc.

On the second day, Speakers present during session II and III were Prof. Rukmini Dey, Professor, ICTS, Bengaluru, India and Prof. Dibyojyoti Bhattacharjee, Department of Statistics, Assam University, Silchar, Assam, India. Prof. Rukmini Dey gave a talk on "*Mathematics is all around us*" where she covered basics of Group theory for undergraduate students to concept of surface for research enthusiasts. Whereas, Prof. Dibyojyoti Bhattacharjee delivered a talk on "*Quantifying the Pressure Experienced by Team batting second in limited over cricket matches*" and he emphasized on the importance of pressure index towards the prediction of batting second in limited over cricket match.

The theme of the webinar was Needs & scope of mathematics and it was aimed to motivate students and to ignite students' enthusiasm for learning mathematics and to understand the importance of mathematics through applications in various fields of sciences. All the talks by the esteemed speakers of the two days sessions have fulfilled the aim and justified completely the theme of the webinar.

Dr. Manjil P. Saikia, Post-Doctoral Research Associate, Cardiff University, United Kingdom & Managing Editor, GONIT SORA took part in the entire programme as the *Moderator*.

Submitted by —

Organizing committee

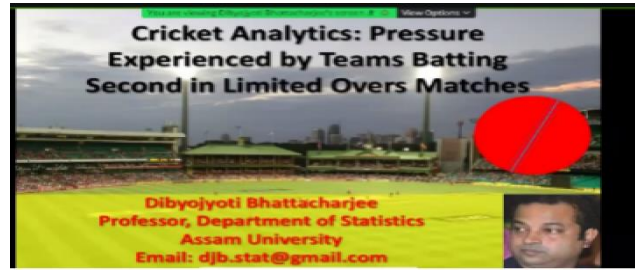
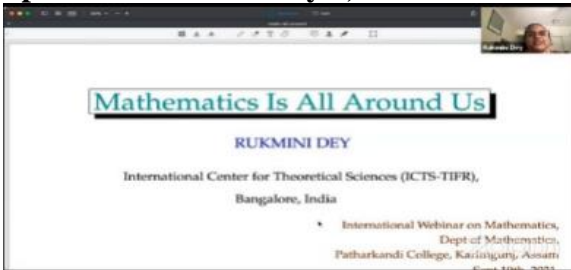
Dr. Munmi Saikia, Coordinator, Assistant Professor & HoD, Mathematics *Munmi Saikia*  
Dr. Dimpri Paul, Co- coordinator, Assistant Professor, Deptt. of Physics *Dimpri Paul*  
Dr. Pradip Doley, Co-coordinator, Assistant Professor, Deptt. of Botany *Pradip Doley*

## Screen Shots taken during the session's:

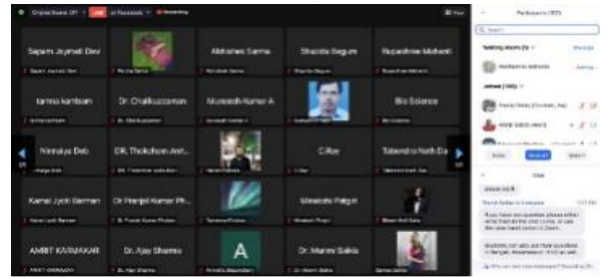
### Speaker session on Day 1, 18/09/2021



### Speaker session on Day 2, 19/09/2021



### Some Participants:



### Some More screen shots during Day 1 and 2:

