



# BABU BANARASI DAS INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(Recognized by AICTE, Govt. of India & Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Lucknow)  
AKTU College Code-054

## Department of Computer Science & Engineering

### Event Report on

### “Codes over rings”



INSTITUTION'S  
INNOVATION  
COUNCIL  
(Ministry of HRO Initiative)



**BABU BANARASI DAS**  
INSTITUTE OF TECHNOLOGY AND MANAGEMENT  
(Formerly Known as Babu Banarsi Das National Institute of Technology and Management)  
(Recognized by AICTE, Govt. of India, affiliated to Dr. A.P.J. Abdul Kalam Technical University, Lucknow)  
AKTU COLLEGE CODE - 054

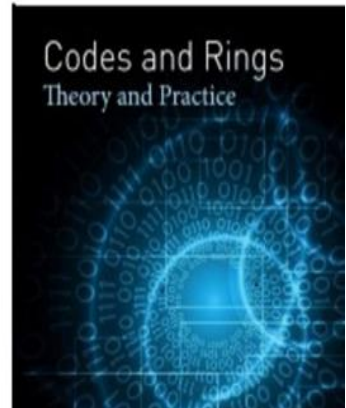


### OUR SPEAKERS



Dr. Om Prakash  
Professor (Mathematic) IIT Patna  
Bihar

## SESSION ON CODES OVER RINGS



### Faculty Coordinator

- Dr. Preeti Mishra, Convener, IIC, BBDITM
- Dr Ruchi Kaushik Sharma Asst. Prof Department of Applied Sciences
- Mr. Vinay Kumar Yadav, Convener, EDC, BBDITM
- Dr Shivangee Tiwari Internship coordinator, IIC
- Mrs Neha Gupta ARIIA Coordinator
- Mr Rudrendra Bahadur Singh IPR Coordinator, IIC

**DATE**  
24TH AUGUST, 2022

**TIME**  
2:00 PM ONWARDS

**Venue**  
ZOOM



IICBBDITM054



IIC BBDITM

## **Promotion Link of Social Media:-**

### **Social media link:**

[https://m.facebook.com/story.php?story\\_fbid=pfbid02m1bCSPSGrhL9xq2mpvspeo9KzuyJNZVUHgSUQSpXA7DwcSFZ8F5qWYsTwUBb3rNEI&id=111223244629027](https://m.facebook.com/story.php?story_fbid=pfbid02m1bCSPSGrhL9xq2mpvspeo9KzuyJNZVUHgSUQSpXA7DwcSFZ8F5qWYsTwUBb3rNEI&id=111223244629027)

2. **Academic Year and Quarter:-** 2021-2022
3. **Program Theme** :- “Codes over rings”
4. **Start and End Date :-** 24<sup>th</sup> August 2022, 2:00 PM onwards
5. **Duration of Activity(in mins):-**

2:00 PM – Zoom meeting started by the student coordinator

2:01 PM onwards – Meeting attendees enters the meeting

2:05 PM – Welcoming all the attendees and Introduction of the Speaker.

2:08 PM- A formal welcome speech by Dr. Preeti Mishra, IIC President

2:10 PM – Presentation started by the speaker, Dr. Om Prakash

2:50 PM – Presentation concluded

2:51 PM- Q & A session

2:55 PM- Appreciation speech by Asst Prof Vinay kumar Yadav, faculty Co-ordinator, BBDITM

1:15 PM- Formal vote of thanks by Dr. Abhimanyu Kumar Yadav

1:18 PM – Vote of thanks from the student coordinator.

1:20 PM – Meeting ended.

**6. Number of Students Participants:-** 23 Participants participated from different Colleges.

**7. Number of Faculty Participants:-**

1. Dr. Preeti Mishra
2. Dr. Ruchi Kaushik Sharma
3. Mr. Vinay Kumar Yadav
4. Dr Shivangee Tiwari
5. Mr. Rudrendra Bahadur Singh
6. Mrs Neha Gupta
7. Dr. Neha Pandey

**8. Proposed Name of Faculty Coordinators :-**

1. Dr. Preeti Mishra
2. Dr. Ruchi Kaushik Sharma
3. Mr. Vinay Kumar Yadav
4. Dr Shivangee Tiwari
5. Mr. Rudrendra Bahadur Singh
6. Mrs. Neha Gupta

**9. Expenditure if any:-**

**10. Objective of the event: -**

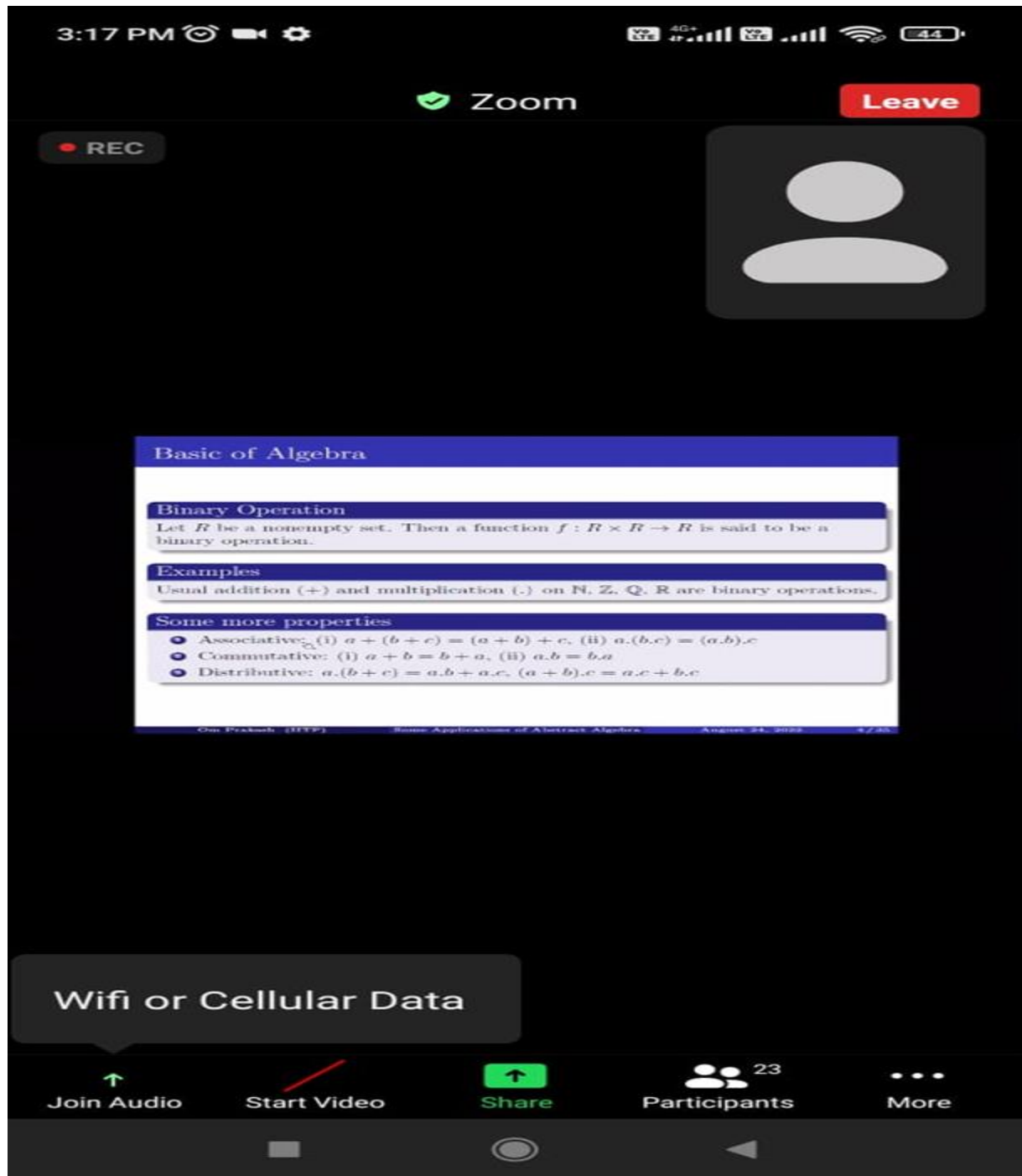
1. The objective of organizing this event is to understand the concept of Codes in mathematics.
2. To learn the significance of Coding theory.

**11. Benefits in terms of Learning/ Skill/ Knowledge Obtained: -**

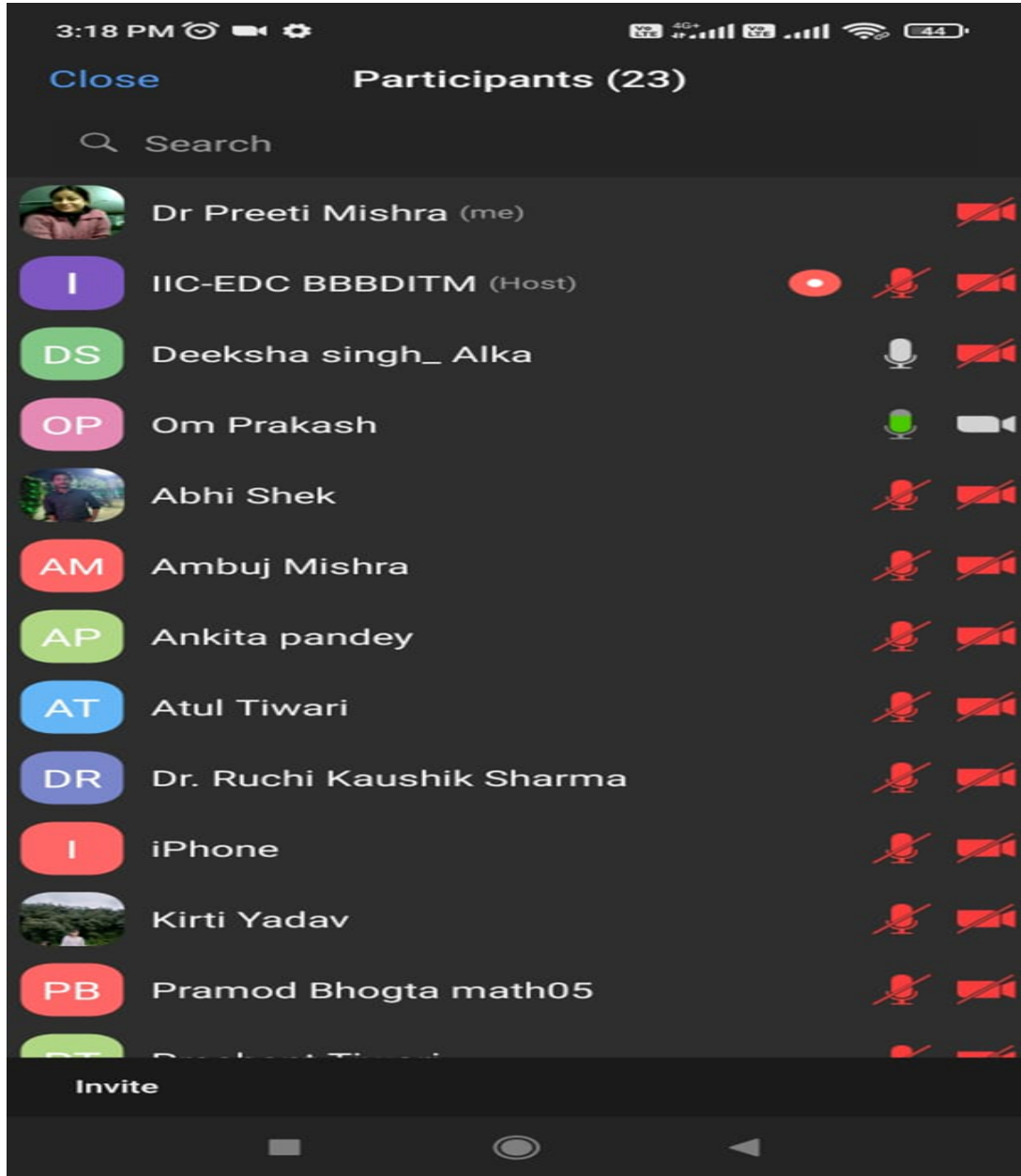
At the level of school student began the study of mathematics by learning addition and multiplication on the set of positive integers. In this learning students learned extended this to operations on the set of all integers. Subtraction and division are defined in terms of addition and multiplication. Later, investigated the set of real numbers under the operations of addition and multiplication. The structures similar to the set of integers are called rings, and those similar to the set of real numbers are called fields.

In coding theory, highly structured codes are needed for speed and accuracy. The theory of finite fields is essential in the development of many structured codes. We will discuss basic facts about finite fields and introduce the reader to polynomial algebra.

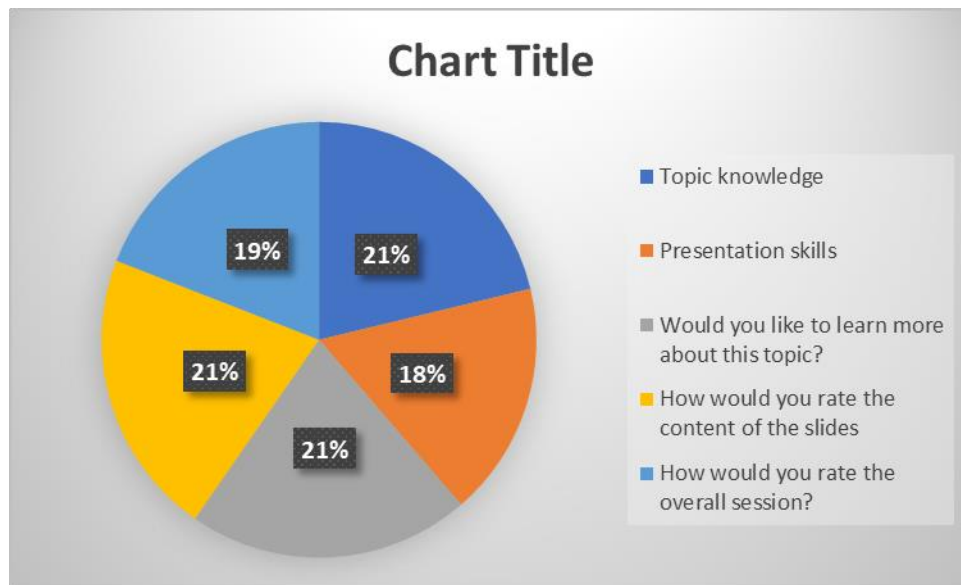
## 12. Event Photographs:-



### 13. Attendance Sheet:-



#### 14. Feedback of the Event:-



#### 15. Overall Event Summary:-

**BBDITM IIC (Institute Innovation Council)** organized an event with the collaboration of EDC named “**Codes over rings**” on **24<sup>th</sup> August 2022** from **2:00 PM** onwards. The speaker of the session was **Dr. Om Prakash Mishra**. He is a Professor of Mathematics in IIT Patna Bihar.

Dr. Om Prakash Mishra explains the Importance of Coding. He shared his knowledge about the significance of integral domains and fields. He also teaches students about binary operation, Non Zero element, Cumulative ring, trivial ring, null ring and all integral domains he discussed.