



# Annual Seminar

## DEPARTMENT OF MATHEMATICS

S.V.M. AUTONOMOUS COLLEGE, JAGATSINGHPUR

DATE : 19.03.2024 | TIME: 11AM

VENUE: SEMINAR HALL, DEPT. OF MATHEMATICS

Topic:

Generalizations of  
Continuity and their Applications to  
Variational Inequalities

Topic:

Music and Mathematics

### Resource Persons:



**Dr. Sabyasachi Pani**  
Professor in Mathematics  
IIT Bhubaneswar



**Dr. Anasuya Nath**  
Associate professor in Mathematics  
Utkal University Bhubaneswar



**Patron**  
**Prof. Bijay Kumar Patra**  
Principal, SVM(A)College,  
Jagatsinghpur



### Co-ordinator



**Sri Asit Ranjan Mohapatra**  
Reader in Mathematics,  
S. V. M. Autonomous college  
Jagatsinghpur

### Convenor



**Dr. Manoja Manjari Swain**  
H. O. D in Mathematics,  
S. V. M. Autonomous college  
Jagatsinghpur

### Members of Organising Committee



**Dr. Jyotirmayee Dash**  
Lecturer in Mathematics,  
S.V.M.(A) college, Jagatsinghpur.



**Mr. Biswajit Pradhan**  
Lecturer in Mathematics,  
S.V.M.(A) college, Jagatsinghpur.



**Mr. Saktiprasad Mohanty**  
Lecturer in Mathematics,  
S.V.M.(A) college, Jagatsinghpur.



**Miss Suprava Behera**  
Lecturer in Mathematics,  
S.V.M.(A) college, Jagatsinghpur.

## **Annual Seminar Report for the session 2023-24:**

Resource Persons:

1. Dr. Sabyasachi Pani      Topic: Generalization of Continuity and their Application to Variational Inequalities
2. Dr. Anasuya Nath      Topic: Music and Mathematics

The annual seminar for the session 2023-24 was held on 19th March 2024 in Mathematics seminar hall. Respected principal Sri. Bijay Kumar Patra presided over the seminar meeting. The meeting started with felicitation of chief guests followed by lightening of diya by principal and H.O.D. on the dias. The welcome speech was given by H.O.D. Dr. Manoja Manjari Swain which was followed by the address of principal. In his speech esteemed principal enlightened the students about importance of seminar and the relation between music and mathematics, also emphasized on taking down the notes during the session. There were two resource persons namely Dr. Sabyasachi Pani Professor in Mathematics, IIT Bhubaneswar and Dr. Anasuya Nath Associate Professor in Mathematics, Utkal University, Bhubaneswar respectively.

The seminar started with presentation on the topic “Generalization of Continuity and their Application to Variational Inequalities” by Dr. Sabyasachi Pani. He discussed about the class of monotone variational inequalities in which both the operator and the convex set are parametrized by continuous functions. After that, Dr Anasuya Nath gave her presentation on the topic “Music and Mathematics” where she discussed about the connection between music and mathematics.

More than 50 students had participated in the seminar and their queries were addressed promptly by the resource persons. The seminar ended with a vote of thanks given by Sri. Asit Ranjan Mohapatra, Reader in Mathematics. Other faculty members like Dr. Jyotirmayee Dash, Sri. Biswajit Pradhan, Sri. Sakti Prasad Mohanty, Miss. Suprava Behera were also present.



# Annual Seminar For the Session Department of Mathematics (2023-24)

Date of Seminar : 19.03.2024

Topic of the Seminar :

1. Generalization of Continuity and their  
Application to Variational Inequalities

2. Music and Mathematics

Resource Persons :

1. Dr. Sabyasachi Pani

Professor in Mathematics, IIT Bhubaneswar

2. Dr. Anasuya Nath

Associate Professor in Mathematics,

Utkal University, Bhubaneswar

Members of Staff Present :-

1. Manaja Manjan Pragn

2. Asit Kumar Mohapatra

3. Dr. Jyotirmayee Dash

4. Biswajit Pradhan

5. Saktiprasad Mohanty

6. Rupnarayan Behera

Students Present :-

| Name of the student             | Class     | Roll No.     |
|---------------------------------|-----------|--------------|
| Pratiprajna Das                 | +3 3rd yr | BS(P)21-133A |
| Sanjita Biswal                  | +3 3rd yr | BS(P)21-086  |
| Garita Malla                    | +3 3rd yr | BS(P)21-100  |
| Bhagyarekha Lenka               | +3 3rd yr | BS(P)21-044  |
| Prityanka Prityadarshinee Sahoo | +3 3rd yr | BS(P)21-012  |
| Biswarupa Muduli                | +3 3rd yr | BS(P)21-097  |
| Kepe Behera                     | +3 3rd yr | BS(P)21-048  |
| Tapaswini Pradhan               | +3 3rd yr | BS(P)21-651  |



| Name of the Student          | Class       | Roll No.     |
|------------------------------|-------------|--------------|
| Sonali Biswal                | +3 3rd year | BSCP) 21-050 |
| Minati Hembaram              | +3 2nd year | BSCP) 21-071 |
| Samarpeta Sahoo              | +3 2nd year | BSCP) 22-164 |
| Suchismita Pani              | +3 2nd year | BSCP) 22-125 |
| Sarmita Sahoo                | +3 2nd year | BSCP) 22-094 |
| Ratnasree Mishra             | +3 2nd year | BSCP) 22-010 |
| Samishkya Nayak              | +3 2nd year | BSCP) 22-013 |
| Archana Mohapatra            | +3 1st year | BSP) 23-112  |
| Selina Das                   | +3 1st year | BSP) 23-114  |
| Sasmita Tarai                | +3 1st year | BSP) 23-079  |
| Shruti Swain                 | +3 1st year | BSP) 23-021  |
| Priyadarshini Routray        | +3 1st year | BSCP) 23-115 |
| Sonali Priyadarshini Swain   | +3 2nd year | BSCP) 22-133 |
| Sudipta Priyadarshini Saha   | +3 1st year | BSP) 23-121  |
| Sushree Chyeta Sahu          | +3 1st year | BSP) 23-081  |
| Sushree Sangita Nayak        | +3 1st year | BSP) 23-099  |
| Sonali Nayak                 | +3 1st year | BSP) 23-116  |
| Rutuparna Priyadarshini Saha | +3 2nd year | BSCP) 22-128 |
| Sthitipranga Swain           | +3 2nd year | BSCP) 22-145 |
| Sonali Das                   | +3 2nd year | BSCP) 22-061 |
| Jagnyani Dahi                | +3 2nd year | BSP) 22-135  |
| Arpita Pradhan               | +3 2nd year | BSCP) 22-040 |
| Souravani Panda              | +3 2nd year | BSCP) 22-095 |
| Ashutosh Swain               | +3 2nd year | BSP) 22-160  |
| Smriti Ranjan Malla          | +3 2nd year | BSP) 22-118  |
| Gopabandhu Behera            | +3 2nd year | BSCP) 22-132 |
| Smriti Ranjan Dash           | +3 2nd year | BSP) 22-127  |
| Smriti Ranjan Lenka          | +3 2nd year | BSP) 22-155  |
| Manas Swain                  | +3 2nd year | BSP) 22-065  |
| Ebbab - Datta                | +3 2nd year | BSP) 22-057  |
| omm prakash Behera           | +3 2nd year | BSP) 22-138  |



| Name of the Student  | Class                   | Roll No.                 |
|----------------------|-------------------------|--------------------------|
| Biswayit Sahoo       | +3 2 <sup>nd</sup> year | BS(P) 22-029             |
| Papu Mandal          | +3 2 <sup>nd</sup> year | BS(P) 22-01930           |
| Diptiranjan Panda    | +3 2 <sup>nd</sup> year | BS(P) 22-099             |
| Om Prakash Nanda     | +3 2 <sup>nd</sup> year | BS(P) 22-053             |
| Abinash Rout         | +3 1 <sup>st</sup> year | BS(P) 23-030             |
| Dibyajit Mohapatra   | +3 1 <sup>st</sup> year | BS(P) 23-061             |
| Subha Ashirbad Panda | +3 1 <sup>st</sup> year | BSCP) 23-109             |
| Swadhin Patra        | +3 1 <sup>st</sup> year | BS(P) 23-039             |
| Rupak Hembrom        | +3 1 <sup>st</sup> year | BS(P) 23-029             |
| Loran Bhoi           | +3 1 <sup>st</sup> year | BSCP) 23-042             |
| Biju Pramanik        | +3 1 <sup>st</sup> year | BS(P) 23-024             |
| Aditya Nayak         | +3 1 <sup>st</sup> year | BSCP) 23-062             |
| Narush Bixwal        | +3 3 <sup>rd</sup> year | BS(P)-21- <del>011</del> |
| Soumya Ranjan Sahoo  | +3 3 <sup>rd</sup> year | BSCP) 21-037             |
| Ashis Mallik         | +3 3 <sup>rd</sup> year | BS(P)-21-066             |
| Tusar Mohanty        | +3 3 <sup>rd</sup> year | BSCP)-21-002             |
| Ashish Kumar Sahoo.  | +3 3 <sup>rd</sup> year | BSCP)-21-034             |
| Dibyajyoti Sahoo     | +3 3 <sup>rd</sup> yr.  | BS(P)-21-095             |
| Sambhu Maity         | +3 3 <sup>rd</sup> yr   | BS(P)-21-092             |
| Satya Prakash Sahoo  | +3 3 <sup>rd</sup> year | BSCP)-21-036             |
| Rakesh Ikar          | +3 3 <sup>rd</sup> year | BS(P)-21-129             |





Jagatsinghpur, Odisha, India  
7546+rmg, Akuli Chhak-jagatsinghpur Rd,  
Jagatsinghpur, Odisha 754103, India  
Lat 20.256779° Long 86.16174°  
19/03/24 12:13 PM GMT +05:30

The Development of Variational Inequality Theory  
Formulation of the Projection as a Variational Inequality Problem

**The Characterization of the Projection onto a convex set.**

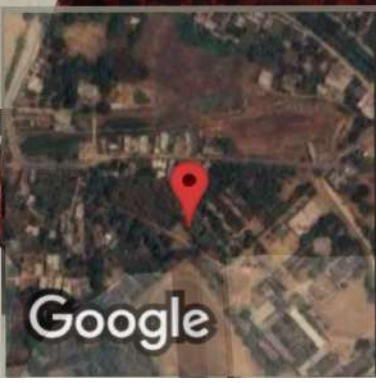
**Lemma:** Let  $K$  be a closed convex subset of Hilbert Space  $H$ , then for each  $x \in H$ , there is a unique  $y \in K$  such that

$$\|x - y\| = \inf_{z \in K} \|x - z\|.$$

**Remark:** The point  $y$  satisfying above equation is called the projection of  $x$  on  $K$ . And we write  $y = Pr_K x$ .

Note that  $Pr_K x = x$  for all  $x \in K$ .

Projection can be formulated as a variational inequality.



Jagatsinghpur, Odisha, India  
 7546+rmg, Akuli Chhak-jagatsinghpur Rd,  
 Jagatsinghpur, Odisha 754103, India  
 Lat 20.256779° Long 86.16174°  
 19/03/24 01:10 PM GMT +05:30

Google





Curriculum

The famed Pythagoras found out that different weights and vibrations make different sounds. Based on this discovery, we now know that the pitch of a vibrating string is directly proportional to its length. The pitch can also be controlled by its length.



Jagatsinghpur, Odisha, India  
7546+rmg, Akuli Chhak-jagatsinghpur Rd,  
Jagatsinghpur, Odisha 754103, India  
Lat 20.256779° Long 86.16174°  
19/03/24 01:48 PM GMT +05:30





Jagatsinghpur, Odisha, India  
7546+rmg, Akuli Chhak-jagatsinghpur Rd,  
Jagatsinghpur, Odisha 754103, India  
Lat 20.256779° Long 86.16174°  
19/03/24 01:57 PM GMT +05:30



Google





**Annual Seminar**  
**DEPARTMENT OF MATHEMATICS**

S.V.M. AUTONOMOUS COLLEGE, JAGATSINGHPUR

DATE : 19.03.2024 | TIME: 11AM

VENUE: SEMINAR HALL, DEPT. OF MATHEMATICS

Topic:  
 Generalizations of  
 Continuity and their Applications to  
 Variational Inequalities

Topic:  
 Music and Mathematics

*Resource Persons:*



Dr. S. ...



... Nath



Dr. Jyotirmayee Dash  
 Lecturer in Mathematics,  
 S.V.M.(A) college, Jagatsinghpur.



Mr. Biswajit Pradhan  
 Lecturer in Mathematics,  
 S.V.M.(A) college, Jagatsinghpur.



Miss. ... Behera  
 Lecturer in Mathematics,  
 S.V.M.(A) college, Jagatsinghpur.



*Patron*  
 Prof. Bijay Kumar Patra  
 Principal, S.V.M.(A) College,  
 Jagatsinghpur



*Convenor*  
 Dr. Manoja Manjari Swain  
 H. O. D in Mathematics,  
 S. V. M. Autonomous college,  
 Jagatsinghpur



*Co-ordinator*  
 Sri Asit Ranjan Mohapatra  
 Reader in Mathematics,  
 S. V. M. Autonomous college,  
 Jagatsinghpur

*Members of Organising Committee*



Jagatsinghpur, Odisha, India  
 7546+rmg, Akuli Chhak-jagatsinghpur Rd,  
 Jagatsinghpur, Odisha 754103, India  
 Lat 20.256779° Long 86.16174°  
 19/03/24 02:21 PM GMT +05:30

Google