



**NSCB Memorial Govt. Degree College  
Hamirpur  
District Hamirpur (H.P.)**

Tel No.: 01972-222227, FAX: 01972-222227, e-Mail: gchamirpur-hp@nic.in



## **DEPARTMENT OF MATHEMATICS**

### **a. List of Seminars/Conferences Organized by the Department:**

1. Organized National Conference on Advances in Mathematical Sciences (NCAMS-2016) held at NSCBM Govt. College, Hamirpur, Himachal Pradesh on 21-22 December, 2016 sponsored by UGC, New Delhi (Received UGC Grants: Rs. 1, 00, 000/-)
2. Organized State Level Seminar on Applications of Mathematics in Every Day Life organized on National Mathematics Day, 22<sup>nd</sup> December 2018 at NSCBM Govt. College, Hamirpur, H. P.
3. Organized International Conference on Mathematics in Space and Applied Sciences organized at NSCBM Govt. College, Hamirpur, H. P. on 29-30 November, 2019 sponsored by NBHM, Mumbai and DRDO New Delhi. (Received Grants from NBHM: Rs.1, 10, 000/- and DRDO Rs. 80, 000/-).
4. Organised 4-week Online Student Development Course on Foundation of Real Analysis w.e.f.11-08-2020 to 05-09-2020 during COVID Period.
5. Organised International Webinar on Contribution of Genius Ramanujan on National Mathematics Day, 22<sup>nd</sup> December 2020 at NSCBM Govt. College, Hamirpur, H. P. during COVID period.
6. Organized State Level Seminar on Importance of Mathematics in other Disciplines organized on National Mathematics Day, 22<sup>nd</sup> December 2021 at NSCBM Govt. College, Hamirpur, H. P.
7. Organized State Level Multidisciplinary Seminar on Importance of Mathematics organized on National Mathematics Day, 22<sup>nd</sup> December 2022 at NSCBM Govt. College, Hamirpur, H. P.
8. Organized 2<sup>nd</sup> International Conference on Mathematics in Space and Applied Sciences at NSCBM Govt. College, Hamirpur, H. P. on 03-04 March, 2023 sponsored by Ministry of Earth Sciences, Govt. of India, New Delhi. (Received Grants from MoES: Rs.1, 20, 000/-).

## **b. List of Innovative Teaching Methodology:**

### **Teaching-Learning through ppt. mode:**

Effective teaching and learning in mathematics through the PowerPoint (PPT) mode involves utilizing the features and capabilities of PowerPoint to enhance the understanding and engagement of students. Here is an explanation of how this can be achieved:

1. **Visual Representation:** PPT allows for the integration of visual elements, such as graphs, diagrams, and illustrations. Visual representations help students visualize abstract mathematical concepts, making them more accessible and easier to understand.
2. **Step-by-Step Instruction:** PPT can be used to present mathematical concepts in a step-by-step manner. Breaking down complex ideas into smaller, sequential steps helps students follow the thought process and grasp the underlying logic.
3. **Interactive Elements:** PPT enables the incorporation of interactive elements like hyperlinks, animations, and multimedia. These interactive features can engage students by allowing them to explore mathematical concepts, solve problems, and interact with the content actively.
4. **Practice and Application:** PPT can include practice exercises, problem-solving scenarios, or interactive quizzes to provide students with opportunities to apply their learning. This promotes active learning and helps students reinforce their understanding of mathematical concepts.
5. **Real-World Contexts:** PPT can be used to connect mathematical concepts to real-world applications. By illustrating how mathematics is used in practical situations, students can better appreciate the relevance and importance of the subject.
6. **Scaffolding:** PPT can be used to scaffold learning by starting with simpler examples and gradually increasing the complexity. This gradual progression helps students build their understanding and confidence, ensuring they are ready to tackle more challenging mathematical problems.
7. **Formative Assessment:** PPT allows for the integration of formative assessment tools such as quizzes, polls, or interactive activities. These assessments can help instructors gauge students' understanding, identify misconceptions, and provide immediate feedback to guide their learning.
8. **Visual Organization:** PPT enables instructors to organize mathematical content in a visually appealing and logical manner. Well-structured slides with clear headings, bullet

points, and subheadings can help students navigate the content and follow the flow of the lesson effectively.

9. **Multimedia Integration:** PPT allows for the integration of multimedia elements, such as videos or audio clips. These multimedia resources can be used to present real-life examples, demonstrations, or explanations, enhancing students' understanding and engagement.
10. **Recap and Summary:** PPT can be used to recap key points and summarize the main concepts covered in a lesson. This helps students consolidate their learning and provides a clear overview of the essential takeaways.

Overall, the effective use of PPT in mathematics teaching and learning involves leveraging its visual and interactive capabilities to present content in a clear, engaging, and organized manner. By incorporating various instructional strategies and multimedia elements, PPT can support student understanding, application, and retention of mathematical concepts.

### **c. Record of hand-on activities of field trips**

NIL

### **d. Record of Internships and projects**

NIL

### **e. List of Meritorious students in academics**

No Merit List was prepared by HPU Shimla since 2012-13

### **f. List of Students Qualified NET, GATE, GRE etc.**

- Jyoti (M. Sc. Mathematics) UGC NET & GATE Qualified
- Vishal Chandel (M. Sc. Mathematics) GATE Qualified

### **g. Detail of IT infrastructure of individual department**

- Computer System (All-in-One) 01 No. (Installed in Faculty Room)
- LED Touch Panel 01 No. (Installed in PG Room-129)

# Brochures of Seminars/Conferences 2016

## Organizing Committee

**Patron** : Dr. Hardev Singh Jamwal  
Principal

**Conference Chair** : Mr. Rakesh Kumar  
Head  
Department of Physics

**Convener** : Dr. G. C. Rana  
Head  
Department of Mathematics  
Email: [gcrana15@gmail.com](mailto:gcrana15@gmail.com)

**Co-conveners** : Dr. Divya Sharma  
Dr. Poonam Sharma

**Organizing Secretaries** : Mr. Pawan Kumar  
Mr. Ashok Kumar  
Dr. Nirmal Singh

**Members** : Dr. Anil Gautam  
Dr. M. S. Mishra  
Mr. Vijay Kaundal  
Mr. Amarjit Lal  
Dr. Ajeet Agnihotri  
Ms. Neelam Guleria  
Dr. Bihari Lal  
Ms. Nitika  
Mr. Prakash Thakur  
Ms. Alpna Sharma  
Dr. Pawan Verma  
Dr. Uttam Kumar  
Mr. Praveen Kumar  
Mr. A. K. Yadav  
Dr. Sapna Sharma  
Ms. Neeraj Kumari  
Mr. Provinder

**Correspondence Address:**  
Dr. G. C. Rana, Convener, NCAMS-2016  
Dept. of Mathematics, NSCBM Govt. College  
Hamirpur, Himachal Pradesh, INDIA 177005  
Email: [ncamsghmr2016@gmail.com](mailto:ncamsghmr2016@gmail.com) [gcrana15@gmail.com](mailto:gcrana15@gmail.com)  
Mobile: 9418490222, 9817598100, 9459434548,  
9459318776, 9805402686, 9459925393, 9805093894



### About the Institution

Netaji Subhash Chander Bose Memorial Government College, Hamirpur (H.P.) came into existence in the year 1965, situated across SH - 39 at a distance of 2 kms from the District Headquarter Hamirpur on Hamirpur-Sujanpur Road, 83 kms. from Gagal Kangra Airport (H.P.) and 205 km from the Rose City Chandigarh. Hamirpur District is situated between 76° 18' to 76° 44' East longitude and 31° 25' to 31° 52' North latitude and the town is situated at an altitude of 785 meters. The district is known for the highest literacy in the state. Hamirpur is surrounded by various famous temples such as Mata Jawalaji, Mata Chintpurni, Mata Chamunda Devi, Baba Deotsidhi etc. The institution is a pioneer of higher education in the entire state, the motto of which is "Veertaa aur Balidaan", i.e., "Bravery and Sacrifice". The college stands for academic excellence, exemplary achievements in sports and cultural activities. It is an alma mater which all alumni look back to with fond memories. The college has celebrated Golden Jubilee Year of its glorious existence last year.

### About the Conference

Mathematics is both an art and a science. Pure Mathematics explores the boundary of mathematics and pure reason while Applied Mathematics tries to model, predict and explain things in the real world. For this reason some special branches of both applied theoretical physics and mathematics have recently emerged in various fields such as biomechanics, mechanobiology, mathematical biology, biothermodynamics etc. The main aim of this conference NCAMS-2016 is to promote mathematical research and provide a common platform for academicians, scientists, engineers and young researchers to discuss the new methods and areas of research in the fields of Pure and Applied Mathematics such as Number Theory, Modern Algebra, Solid Mechanics, Fluid Mechanics, Bio-Mechanics, Computational Fluid Dynamics, Differential Equations, Bio-Mathematics, Chemical Sciences, Cryptography, Mathematical Modelling, Theoretical Physics, Computational Mathematics, Statistics, Numerical Analysis, Numerical Statistics, Operational Research, Magnetohydrodynamics, Fuzzy Sets which have relevance in the real world.

*National Conference*  
on  
*Advances in*  
*Mathematical Sciences*  
(NCAMS - 2016)  
*December 21-22, 2016*  
Organized by  
*Department of Mathematics*



Netaji Subhash Chander Bose Memorial  
Government College, Hamirpur,  
Himachal Pradesh, INDIA-177005

Website: [www.gchamirpur.org](http://www.gchamirpur.org)  
Email: [gdc\\_hamirpur@rediffmail.com](mailto:gdc_hamirpur@rediffmail.com)  
FAX & Ph. No.: 01972222227  
(Accredited by NAAC with 'B' Grade)

Sponsored by



**University Grants Commission**  
**New Delhi**

## Important Dates

Last dates:  
Submission of Paper : November 21, 2016  
Registration : November 21, 2016  
Registration with late fee: November 30, 2016  
Date of Conference: December 21-22, 2016

**Advisory Committee / Invited Speakers:**  
♦ Prof. Mihir B. Banerjee (S.S. Bhatnagar Awardee), HPU Shimla  
♦ Prof. M. Subbiah, University of Pondicherry, Pondicherry  
♦ Prof. J. R. Gupta, HPU Shimla  
♦ Prof. R. G. Shandil, HPU Shimla  
♦ Prof. M. G. Gorla, HPU Shimla  
♦ Prof. R. P. Sharma, HPU Shimla  
♦ Prof. Veena Sharma, HPU Shimla  
♦ Prof. S. K. Tomar, P. U. Chandigarh  
♦ Prof. Rajneesh Kumar, K. U. Kurukshetra  
♦ Prof. Joginder Singh Dhiman, HPU Shimla  
♦ Prof. J. P. Kumar, Gulbarga Univ. Gulbarga, Karnataka  
♦ Prof. Sunil, NIT Hamirpur  
♦ Prof. Jyoti P. Sharma, HPU Shimla  
♦ Prof. Khem Chand, HPU Shimla  
♦ Prof. K. L. Verma, Career Point Univ. Hamirpur  
♦ Dr. Urvashi Gupta, UICET, P. U. Chandigarh  
♦ Dr. Vinay Kanwar, UIET, P. U. Chandigarh  
♦ Prof. P. C. Patyal, Principal (Retd.), GC Hamirpur  
♦ Prof. Shyam S. Thakur, Principal, G. C. Sarkaghat, Mandi  
♦ Dr. R.K. Kaistha, Principal, G. C. Aani, Kullu  
♦ Dr. R. C. Sharma, Principal (Retd.), GC Bangana, Una  
♦ Mr. R. C. Thakur, G. C. Sarkaghat, Mandi  
♦ Dr. Ajaib S. Banyal, G. C. Nadaun, Hamirpur  
♦ Dr. Anita Tomar, VSKC Govt. College, Dakpathar (U.K.)  
♦ Dr. Sanjeev Kumar, G.C. Joginder Nagar, Mandi  
♦ Dr. Ramesh Chand Thakur, G.C. Nurpur, Kangra  
♦ Dr. S. K. Kango, G.C. Barsar, Hamirpur  
♦ Prof. Ramesh Chand, G. C. Dharampur, Mandi  
♦ Dr. Jagjit Patyal, G. C. Bhoranj, Hamirpur  
♦ Dr. C. B. Mehta, G.C. Sanjauli, Shimla  
♦ Mr. Rajinder Sharma, G. C. Nadaun, Hamirpur  
♦ Mr. Vipin Sharma, G.C. Bhoranj, Hamirpur  
♦ Dr. Manoj Dogra, G.C. Bhoranj, Hamirpur  
♦ Mrs. Kalpna Chadha, G.C. Sujanpur Tira, Hamirpur  
♦ Mr. Rajesh Kumar, G. C. Nadaun, Hamirpur  
♦ Dr. Madhu Dhadwal, HPU Shimla  
♦ Dr. Puneet Rana, Jaypee Inst. of Inf. Tech., Noida, (U.P.)  
♦ Dr. Sumit Gupta, Govt. College, Diggal, Solan

### About the Department

The department has six highly qualified and devoted faculty members with specializations in Pure and Applied Mathematics.

### Call For Papers

The authors are requested to submit the original work on the thrust area of conference, which is neither accepted nor under consideration for publication elsewhere, in MS-word file not more than 10 pages in 12 point Times New Roman font. All accepted papers of registered authors will be included in the conference proceeding of NCAMS - 2016 and proposed to be published in ISBN/ISSN (Book/Journal).

Email: [ncamsghmr2016@gmail.com](mailto:ncamsghmr2016@gmail.com) [gcrana15@gmail.com](mailto:gcrana15@gmail.com)

### Accommodation

Limited free boarding and lodging facilities for outstation participants will be provided on request depending upon the availability there of. Those interested in accommodation in hotels on actual payment basis may request for the same in advance before 21<sup>st</sup> November, 2016.

### Registration Fee

Registration fee may be sent in the favour of Head, Department of Mathematics, NSCBM Govt. College, Hamirpur (H. P.) payable at Hamirpur latest by November 21, 2016 and deposit Rs. 25 extra as bank commission or through online banking (NEFT/RTGS):  
**Bank Name:** The Kangra Central Coop. Bank Ltd.  
**Branch** : Anoo (63) H. P.  
**A/C No.** : 50064722544

**IFSC Code** : KACE0000063

Category	On/Before 21-11-2016	After 21-11-2016
UG/PG Students	Rs. 800/-	Rs. 1000/-
Research Scholar	Rs. 1200/-	Rs. 1500/-
Faculty	Rs. 1500/-	Rs. 1800/-
Accompanying Person	Rs. 1000/-	Rs. 1200/-

**Note:** Please email the scanned copy of bank deposit counterfoil/Draft/Check.

## REGISTRATION FORM National Conference

on  
*Advances in*  
*Mathematical Sciences*  
(NCAMS - 2016)

**December 21-22, 2016**

Name: .....  
Designation: .....  
Affiliation: .....  
Male/Female: .....  
Educational Qualifications: .....  
Category: .....  
(Faculty/Student/Delegate from Industry)  
Mailing Address: .....  
Phone: .....  
Email: .....  
Accommodation Required (Yes/No).....  
**Details of Registration Fee**  
BD/DD No: .....  
Dated:..... Bank: .....  
Arrival Date..... Departure Date.....  
Will you be presenting a paper? (Yes/No).....  
If yes, give title of the paper: .....

Certified that the above information is true and correct to the best of my knowledge and belief.

Signature

**Note:** Certificate will be issued to duly registered participants only.

**For any information please contact:**

**Dr. G. C. Rana, Convener, NCAMS-2016**

Email: [ncamsghmr2016@gmail.com](mailto:ncamsghmr2016@gmail.com),

[gcrana15@gmail.com](mailto:gcrana15@gmail.com)

Mobile: +919418490222, +919817598100,

9459434548, 9459318776, 9805402686,

9459925393, 9805093894

**Organising Committee**

- Patron** : Dr. Hardev Singh Jamwal, Principal  
**Coordinator** : Dr. J. S. Patyal, Assoc. Professor  
 Department of Mathematics  
**Convener** : Dr. G. C. Rana, Assoc. Professor  
 Department of Mathematics  
**Co-convener** : Ms. Kalpna Chadha, Assoc. Prof.  
 Department of Mathematics  
**Organising Secretaries** : 1. Mr. Ashok Kumar, Asst. Prof.  
 2. Dr. Sunil K. Sharma, Asst. Prof.  
 Department of Mathematics

**Important Dates**

**Date of Seminar** : December 22, 2018

**Registration Fee**

Students / Research Scholar : Rs. 150/-

Teachers/ Academics/ Delegates : Rs. 300/

**Last Date of Registration:**

**Paper Presenters/** : December 18, 2018

**Participants (Teachers/ Academics/ Delegates)**

**Participants of Mathematics Olympiad (Maximum 5 students can participate per college)**

: December 18, 2018

**Participants of Mathematics Quiz (Maximum 3 students can participate per college)**

: December 18, 2018

**Time of SLMO** : 01 Hour (12 Noon-01 PM)

**Time of SLMQ** : 01 Hour (02 PM-03 PM)

**Advisory Committee/Invited Speakers**

1. Dr. A. S. Banyal, Principal, GC Jawalamukhi
3. Dr. S. K. Kango, AP, GC Barsar
4. Mr. Rajesh Kumar, GC Nadaun
5. Prof. Jai Chand GC Bilaspur
5. Dr. Divya Sharma, GC Bhoranj
6. Dr. Poonam Sharma, GC Sujanpur Tira
7. Prof. Pawan Kumar, GC Nadaun
8. Dr. Nirmal Singh, GC Bhoranj

**Address for Correspondence**

Dr. G. C. Rana, Convener, SLSAMDL-2018  
 Mr. Ashok Kumar, Dr. S. K. Sharma, Secretary, SLSAMDL-2018  
 Department of mathematics, NSCBM Govt. College Hamirpur  
 (H. P.) 177005, 9418490222, 9805093894, 9816302968  
 Email: [ncamsgchmr2016@gmail.com](mailto:ncamsgchmr2016@gmail.com)

**About the Seminar**

On the occasion of 131<sup>st</sup> birth anniversary of famous Indian Mathematician Srinivasa Ramanujan, Department of Mathematics, NSCBM Govt. College, Hamirpur is going to celebrate National Mathematics Day by organizing a State Level Seminar on Applications of Mathematics in Daily Life on 22<sup>nd</sup> December, 2018.

It is true that in each and every sphere of our daily life mathematics provides its help and patronage without which we cannot do anything. Every dealing of our life begins and ends with the mathematical thinking and reasoning, e. g. daily house hold problems, food, clothing, idea of quantity and quality, daily accounts of income and expenditure, allocation of funds etc. Such type of day to day problems cannot be solved without the knowledge of mathematics.

The seminar will include invited talks by the distinguished Academicians, Scientists, Engineers, Doctors and presentations of papers by the various faculties of Colleges/Institutes, young researchers, students of the state to discuss the various applications of mathematics in daily life and conduct a state level Mathematics Olympiad and Quiz Competition among the students of various colleges of Himachal Pradesh.

**REGISTRATION FORM**

State Level Seminar on Applications of Mathematics in Daily Life  
 December 22, 2018

Name: .....

Designation: .....

Affiliation: .....

Male/Female: .....

Educational Qualifications: .....

Category: .....

(Faculty/Student/Delegate)

Mailing Address: .....

.....

Phone: .....

Email: .....

Will you be presenting a paper? (Yes/No)..

If yes, give title of the paper: .....

.....

Certified that the above information is true and correct to the best of my knowledge and belief.

Signature

**Accommodation**

Those interested in accommodation in hotels on actual payment basis may request for the same in advance before 18<sup>th</sup> December, 2018. College will not provide any TA/DA/accommodation to the participants.

**State Level Seminar  
 On  
 Applications of Mathematics in Daily Life  
 (SLSAMDL - 2018)**



**On National Mathematics Day**

**Organized by**

**Department of Mathematics  
 Netaji Subhash Chander Bose Memorial  
 Govt. College, Hamirpur (H. P.) 177005**

**Website:** [www.gchamirpur.org](http://www.gchamirpur.org)

**Email:** [ncamsgchmr2016@gmail.com](mailto:ncamsgchmr2016@gmail.com)

**Ph. No.:** 01972222227



**About the Institute**

Netaji Subhash Chander Bose Memorial Government College, Hamirpur (H.P.) came into existence in the year 1965, situated across SH - 39 at a distance of 2 kms. from the District Headquarter Hamirpur on Hamirpur-Sujanpur Road. The institution is a pioneer of higher education in the entire state, the motto of which is "Veertaa aur Balidaan", i.e., "Bravery and Sacrifice". The college stands for academic excellence, exemplary achievements in sports and cultural activities. It is an alma mater which all alumni look back to with fond memories.

## Organization Committee

### Patron

**Dr. (Ms.) Anju Batta Sehgal**  
Principal

### Advisors

**Ms. Reeta Sharma**, Associate Professor of Chemistry  
**Dr. M. S. Mishra**, Associate Professor of Music  
**Dr. Y. S. Patyal**, Associate Professor of Commerce  
**Ms. Neelam Guleria**, Associate Professor of Physics  
**Dr. Vijay Kumar**, Associate Professor of Botany  
**Mr. Surender Thakur**, Associate Professor of Zoology

### Coordinator

**Dr. Jagjit Singh Patyal**, Associate Professor  
Department of Mathematics

### Conference Chair

**Dr. G. C. Rana**, Associate Professor  
Department of Mathematics

### Conference Co-chair

**Ms. Kalpa Chadha**, Associate Professor  
Department of Mathematics

### Conference Convener

**Dr. S. K. Kango**, Associate Professor  
Department of Mathematics

### Organizing Secretaries

**Mr. Ashok Kumar**, Assistant Professor  
**Dr. Sunil K. Sharma**, Assistant Professor  
Department of Mathematics

### Conference Treasurers

**Mr. Vikram Singh Thakur**, Associate Professor of Commerce  
**Dr. Satish Soni**, Associate Professor of Commerce  
**Dr. Dinesh Sharma**, Assistant Professor of Commerce

### Conference Press Secretaries

**Dr. Manoj Dogra**, Assistant Professor of Pol. Science  
**Mr. Saurabh Sood**, Assistant Professor of J&MC  
**Dr. Mukul Kumar**, Assistant Professor of English

## Advisory Committee/Invited Speakers

**Prof. Sikander Kumar**, Vice Chancellor, HPU Shimla, INDIA  
**Dr. Amarjeet K. Sharma**, Director of Higher Education, Shimla, INDIA  
**Prof. Vinod Yadava**, Director, NIT Hamirpur, INDIA  
**Prof. S. Srivakumar**, Director, IIT Uda, Himachal Pradesh, INDIA  
**Prof. Ravi P. Agarwal**, Texas A&M University-Kingville, USA  
**Prof. G. P. Rao**, Member of the UNESCO-EOLSS Joint Committee UAE  
**Dr. Shiv Kumar Singh**, BARC & MS, NBHM, Mumbai, INDIA  
**Prof. Ian Stewart**, University of Warwick, United Kingdom  
**Prof. Heather Harrington**, University of Oxford, United Kingdom  
**Prof. M. M. Rashidi**, University of Birmingham, UK  
**Prof. Anuj Chakraborty**, Colorado School of Mines, USA  
**Dr. Dolores Puigjaner**, Universitat Rovira i Virgili, Spain  
**Prof. D. Vadav**, Univ. of Sivas, Oman  
**Mr. Vijay Raj S. Sekhawat**, ASO Mathematics, CSST, MHRD New Delhi  
**Dr. A. K. Kulkarni**, Mumbai, Ex. MS NBHM, Mumbai, INDIA  
**Dr. Anil Bojpal**, Ex. MS, NBHM, Mumbai, INDIA  
**Prof. M. B. Banerjee**, HPU, Shimla, INDIA  
**Prof. B. S. Komial**, University of Jammu, INDIA  
**Prof. P. G. Siddherwar**, Bangalore University, Bangalore, Karnataka, INDIA  
**Dr. Rajeev Vij**, Scientist DRDO, INDIA  
**Prof. R. P. Sharma**, HPU, Shimla, INDIA  
**Prof. (Mr.) Veena Sharma**, HPU, Shimla, INDIA  
**Prof. J. S. Dhimant**, HPU, Shimla, INDIA  
**Prof. S. K. Tomar**, PU Chandigarh, INDIA  
**Prof. J. Prasad**, Gulbarga University, Karnataka  
**Prof. Rajneesh Kumar**, KU Kurukshetra, INDIA  
**Prof. Anil Vashishth**, KU Kurukshetra, INDIA  
**Prof. Y. D. Sharma**, NIT Hamirpur, INDIA  
**Prof. Sunil**, NIT Hamirpur, INDIA  
**Prof. Khem Chand**, HPU, Shimla, INDIA  
**Prof. Jyoti Prakash**, HPU, Shimla, INDIA  
**Dr. Gajendra P. Singh**, JNU Delhi, INDIA  
**Prof. P. C. Patyal**, Retd. Principal, INDIA  
**Dr. R. K. Kaittha**, Retd. Principal, INDIA  
**Dr. Kamal Kant**, Retd. Principal, INDIA  
**Dr. R. C. Sharma**, Retd. Principal, INDIA  
**Dr. Nand Lal Sharma**, Principal, GC Garaguanai, INDIA  
**Dr. H. S. Jauwal**, Principal, GC Bhasraj, INDIA  
**Dr. R. C. Thakur**, Principal, GC Saklaghat, INDIA  
**Dr. C. B. Mehra**, Principal, GC Sanjauli, INDIA  
**Dr. Rakesh Sharma**, Principal, GC Mandi, INDIA  
**Dr. Brij Raj Singh Sen**, Principal, GC Dehar, INDIA  
**Dr. A. S. Bhatnagar**, Principal, GC Jawalshanki, INDIA  
**Dr. Sounder K. Sharma**, Principal, GC Naduan, INDIA  
**Dr. Anil Gotsam**, Principal, GC Sujapur Tira, INDIA  
**Dr. Ashwani Sharma**, Principal, GC Barar, INDIA  
**Dr. Ashwani Sharma**, Principal, GC Bangasa, INDIA  
**Dr. Rajeev Agarwal**, Principal, DB College, Univ. of Delhi, INDIA  
**Dr. Puneet Rana**, JPIT, Noida, INDIA  
**Dr. Rakesh Kumar**, SMYDU, Katra, J & K, INDIA  
**Dr. Rakesh Kumar**, CHEP, Bharanahals, INDIA  
**Dr. Sanjay Sharma**, GC, Mandi, INDIA  
**Dr. Sanjeev Kumar**, GC, Mandi, INDIA  
**Dr. Ramesh Chand**, GC Nurpur, INDIA  
**Dr. Pawan K. Sharma**, NIT Hamirpur, INDIA  
**Dr. Manoj Kumar**, Director, M & M Educational Services, Hamirpur, INDIA

## International Conference

on  
**Mathematics in Space & Applied Sciences**  
"ICMSAS-2019"  
November 29-30, 2019

Sponsored By  
NBHM, Mumbai & DRDO, New Delhi



Organized by



Department of Mathematics  
Netaji SubhashChander Bose Memorial  
Govt. College, Hamirpur-177005  
Himachal Pradesh, INDIA  
Website: [www.gchamirpur.org](http://www.gchamirpur.org)  
Ph. No.: 01972-222227

### About the Host Institution

Netaji Subhash Chander Bose Memorial Government College, Hamirpur (H.P.) came into existence in the year 1965, situated across SH - 39 at a distance of 2 kms. from the District Headquarter Hamirpur on Hamirpur-Sujanpur Road. The institution is a pioneer of higher education in the entire state, the motto of which is "Veerata aur Balidaan", i.e., "Bravery and Sacrifice". The college stands for academic excellence, exemplary achievements in sports and cultural activities. It is an alma mater which all alumni look back to with fond memories. The college is affiliated to the Himachal Pradesh University Shimla U6 1(f)&12(B) of UGC act and has been accredited B grade with grade point 2.83 by NAAC in the year 2015. The college offers different undergraduate programmes in humanities, science and Commerce. Postgraduate Courses in Mathematics, Botany, Zoology, English, Hindi, Economics and Commerce are also run by the college. The college also runs self-financing courses in BBA, BCA, B.Voc. (Retail Management & Hospitality) and PGDCA.

#### Tourist Places



**Mata Jawala Mukhi**, **Baba Deot Sidh**, **Palampur Tea Garden**  
Hamirpur is surrounded by various famous temples such as Mata Jawalaji, Mata Chintamani, Mata Bagula Mukhi, Mata Brajeshwari, Chamunda Devi, Baba Deotsidh and famous Tea Gardens etc.

#### About the Conference

The basic objective of the conference is to provide a platform for academicians, scientists, engineers and researchers to discuss the applications of Mathematics in Space Technology in particular and in Applied Sciences in general.

The deliberations of the conference include the invited lectures and paper presentations by eminent Scientist/Mathematicians/Engineers/Doctors/Scholars from India & abroad. This will provide an in-depth analysis of the subject and update the knowledge of the participants from academic/research institutions. Further, the conference intends to promote high standard in Colleges/Universities by way of extending facilities to teachers, researchers and students, by providing a forum for sharing their knowledge, experience and research findings. The conference will really motivate the students and will create an atmosphere of research and study in the subjects like Mathematics, Physics, Computer Sciences and Health Sciences etc. We hope that the students as well as teachers of the area will be benefited by the conference. The conference will be primarily devoted to the original research, expository, articles that encourage communication between researchers and experts in areas of application.

### Call for Papers

Papers are invited for conference on the following areas of interest that include, but are not limited to.

Main Themes of the Conference:

Use of Mathematics in  
Space and Defence Technologies: Data Analysis, Modeling and Estimation,  
Operational Analysis, Security, Cryptography  
Pure and Applied Mathematics  
Physical Sciences: Physics, Chemistry etc.  
Health and Life Sciences.  
Computer Sciences  
Fluid dynamics: Nanofluids, Non-Newtonian Fluids, Ferrofluids etc.  
Solid Mechanics  
Engineering Sciences  
Agriculture & Horticulture Sciences  
Economy and Management, etc.

Abstract/Manuscript for oral / Poster Presentation should be typed in MS Word with 12 pt. Times New Roman font in one and half line spacing. The Registration form complete in all respect, **abstract and full length papers** should be sent through email on [skkango72@gmail.com](mailto:skkango72@gmail.com) within due dates.

#### Accommodation

Free lodging and boarding for outstation participants will be arranged on request depending on the availability. Those interested in accommodation in hotels on actual payment basis may request for the same in advance.

#### Proceedings of Conference

Proceedings of the conference are proposed with ISBN/ISSN.

#### For any query, please contact:

**Dr. Jagjit Singh Patyal**, Associate Professor  
Co-ordinator (Cell: 70189-58336)  
**Dr. G. C. Rana**, Associate Professor  
Conference Chair (Cell: 70186-36122)  
Email: [drgcraanal5@gmail.com](mailto:drgcraanal5@gmail.com)  
**Ms. Kalpa Chadha**, Associate Professor  
Conference Co-chair (Cell: 94180-36398)  
**Dr. S. K. Kango**, Associate Professor  
Conference Convener (Cell: 82198-97616)  
Email: [skkango72@gmail.com](mailto:skkango72@gmail.com)  
**Mr. Ashok Kumar**, Assistant Professor  
Org. Secretary (Cell: 98050-93894, Email: [ashokedu19@gmail.com](mailto:ashokedu19@gmail.com))  
**Dr. Sunil Kumar Sharma**, Assistant Professor  
Org. Secretary (Cell: 83519-02968, Email: [sunilshrml67@gmail.com](mailto:sunilshrml67@gmail.com))

### Important Deadlines

Last date of submission of abstract: Sept. 30, 2019  
Acceptance of abstract: Oct. 05, 2019  
Last date for full paper submission: Oct. 20, 2019

### Registration Fee

Participants/Delegates	Last date: <b>October 20, 2019</b>
Research Scholars (Indian)	1500 INR
Delegates (Indian)	2000 INR
UG/PG Students	1000 INR
Accompanying Person	1500 INR
Delegates (outside India)	100 USD
Accompanying Person (outside India)	50 USD

Registration Fee is to be paid online:

Beneficiary Name: Head Department of Mathematics  
Bank Name: Kangra Central Cooperative Bank  
Branch Name: KCCB Branch Anoo (Hamirpur)  
Branch Code: 63  
Account number: 50064722544  
IFSC Code: KACE0000063

After payment send the following informations through email:-  
1. Scanned copy of counter foil/receipt of payment with proper date if deposited in cash

2. Name of bank, Branch and bank code with date if paid online

In case of need, Participants from India & Abroad may contact:

Conference Convener: **Dr. S. K. Kango**  
Associate Professor, Department of Mathematics  
NSCBM Government College, Hamirpur  
Himachal Pradesh-177005, INDIA  
Email: [skkango72@gmail.com](mailto:skkango72@gmail.com), Cell: 82198-97616

2020

# Online Student Development Course



## Foundation of Real Analysis

(4-WEEKS COURSE)

(w.e.f. 11-08-2020 to 05-09-2020)

Organized by : Department of Mathematics

## NSCBM GOVT. COLLEGE HAMIRPUR (H.P.)



### About the Host Institution

Netaji Subhash Chander Bose Memorial Government College, Hamirpur (H.P.) came into existence in the year 1965, situated across SH-39 at a distance of 2 kms. from the District Headquarter Hamirpur on Hamirpur-Sujanpur Road. The institution is pioneer of higher education in the entire state, the motto of which is "Bravery and Sacrifice". The College stands for academic excellence, exemplary achievements in sports and cultural activities. It is an alma mater which all alumni look back to with fond memories. The college is affiliated to the Himachal Pradesh University Shimla u/s 2 (f) 12 (B) of UGC act and has been accredited B grade point 2.83 by NAAC in the year 2015. The College offers different undergraduate programmes in humanities, science and commerce. Postgraduate Course in Mathematics, Botany, Zoology, English, Hindi, Economics and Commerce are also run by the college. The college also runs self-financing courses in BBA, BCA, B.Voc. (Retail Management & Hospitality) and PGDCA.

### About the SDP :

In this pandemic crisis, while taking the responsibility of spreading the knowledge to the aspirants in the utterly changed circumstances through every possible means, the Department of Mathematics has initiated this online Student Development Program (SDP), so that the learning process of deserving students may not get hampered during this crucial time. In the present situation, it is necessary to provide a platform to students with the essential/ basic training of Mathematics to keep them in touch with the subject. This SDP will focus on the basic concepts of Real Analysis which in turn will help the students of BA/B.Sc to fill the gaps in their learning specially students of BA/B.Sc 2nd year. This program will enhance their ability to understand the higher concepts of Mathematics (Real Analysis) and it will increase their interest in subject which will ultimately boost their morale among these difficult times.

### Target Audience:

The students of B.A./ B.Sc. 2nd & 3rd year and M.Sc. (Mathematics) 1st and 2nd year can participate in it. There are limited number of seats available in this SDP, therefore preference will be given to students who are in 2nd year/3rd semester.

**Important Instructions:** Please install telegram app after submitting this form since all the communication will be done through the telegram group formed for this program.

- ▶ This program will be conducted through Google meet. The link for joining this course shall be shared with registered participants via telegram app group made for this program.
- ▶ No registration fee is required for this program.
- ▶ Timing of the program is 5:00 PM to 6:30 PM.

### TOPICS:

1. LUB & GLB Axioms
2. Absolute Value and Triangular inequality
3. Completeness in Real numbers (R)
4. Bounds of a sequence and Convergent sequence
5. Cauchy's 1<sup>st</sup> and 2<sup>nd</sup> theorems on limit
6. Monotonic sequences and Cauchy's criterion for convergence of sequences
7. Infinite series
8. Test's for convergence for series of positive terms.
9. Test's for convergence for alternating series
10. Absolute and conditional convergence
11. Pointwise convergence
12. Uniform Convergence

### SPEAKERS:

Dr. Sunil Kumar Sharma  
Dr. Sunil Kumar Sharma  
Dr. Sunil Kumar Sharma  
Dr. Sangeet K. Pathak  
Dr. Sangeet K. Pathak  
Dr. Sangeet K. Pathak  
Dr. Rohit Gandhi  
Dr. Rohit Gandhi  
Dr. Rohit Gandhi  
Prof. Gaurav Sharma  
Prof. Gaurav Sharma  
Prof. Gaurav Sharma

### TELEGRAM APP :

Please install **telegram app** through this link on or before 09/08/2020  
<https://t.me/joinchat/Otog-RvZ2AOSLVxoKlx2AQ>

### SDP RESOURCE TEAM:

Dr Sangeet K. Pathak (Asst. Prof. SGTBK College, Anandpur Sahib) Dr Sunil Kumar Sharma (Asst. Prof. NSCBM Govt. College Hamirpur, HP)  
Dr Rohit Gandhi (Asst. Prof. Govt College Rey, Kangra) Mr. Gaurav Sharma (Asst. Prof. Govt PG College Una, HP)

### ORGANIZATION COMMITTEE

Chief Patron - Dr.(Ms.) Anju Batta Sehgal (Principal)  
Course Chair-Dr. J. S. Patial  
Course Co-chair- Ms. Kalpna Chadha  
Convener - Dr. Sanjay Kango

Co-convener - Dr. Poonam Sharma  
Org. Secretary - Mr. Ashok Kumar  
Course Coordinator- Dr. Sunil Kumar Sharma

2020



**International Webinar**  
on  
**'Contributions of Genius Ramanujan'**  
**National Mathematics Day**  
December 22, 2020



**Speakers**



Prof. G.P. Rao, UAE



Dr. Nand Lal Sharma  
Principal, GC Panarsa  
(Mandi) (H.P.)



Dr. Anju Batta Sehgal  
Principal-Cum-Patron



Dr. Sanjay Kango, Convener  
& HOD



Dr. Poonam Sharma  
Co-Convener

**Organising Secretaries**



Sh. Pawan Kumar



Sh. Ashok Kumar



Dr. Sunil K. Sharma



Dr. Nirmal Singh

In Collaboration with  
**Shiksha Sanskriti Utthan Nyas, Himachal Pradesh**

Organised By  
**Department of Mathematics**  
Netaji Subhash Chander Bose Memorial  
Government College, Hamirpur (H.P.)



### Organising Committee

**Patron** : Dr. Anju Batta Sehgal, Principal  
**Coordinator** : Dr. G. C. Rana, Associate Professor  
 Department of Mathematics  
**Convener** : Mr. Rajesh Kumar, Assistant  
 Professor  
 Department of Mathematics  
**Co-convener** : Ms. Kalpna Chadha, Assoc. Prof.  
 Department of Mathematics  
**Organising** : 1. Mr. Ashok Kumar, Asst. Prof.  
**Secretaries** : 2. Dr. Sunil K. Sharma, Asst. Prof.  
 Department of Mathematics

### Important Dates

**Date of Seminar** : December 22, 2018

#### Registration Fee

**Students / Research Scholar** : Rs. 150/-

**Teachers/ Academics/ Delegates** : Rs. 300/

**Last Date of Registration:**

**Paper Presenters/** : December 18, 2018

**Participants (Teachers/ Academics/ Delegates)**

**Participants of Mathematics Olympiad** (Maximum 5 students can participate per college)

: December 18, 2018

**Participants of Mathematics Quiz** (Maximum 3 students can participate per college)

: December 18, 2018

**Time of SLMO** : 01 Hour (12 Noon-01 PM)

**Time of SLMQ** : 01 Hour (02 PM-03 PM)

### Advisory Committee/Invited Speakers

1. Dr. A. S. Banyal, Principal, GC Jawalamukhi
3. Dr. S. K. Kango, AP, GC Barsar
4. Mr. Rajesh Kumar, GC Nadaun
5. Prof. Jai Chand GC Bilaspur
5. Dr. Divya Sharma, GC Bhoranj
6. Dr. Poonam Sharma, GC Sujanpur Tira
7. Prof. Pawan Kumar, GC Nadaun
8. Dr. Nirmal Singh, GC Bhoranj

### Address for Correspondence

Dr. G. C. Rana, Convener, SLSAMDL-2018  
 Mr. Ashok Kumar, Dr. S. K. Sharma, Secretary, SLSAMDL-2018  
 Department of mathematics, NSCBM Govt. College Hamirpur  
 (H. P.) 177005, 9418490222, 9805093894, 9816302968  
 Email: [ncamsghmr2016@gmail.com](mailto:ncamsghmr2016@gmail.com)

### About the Seminar

On the occasion of 131<sup>st</sup> birth anniversary of famous Indian Mathematician Srinivasa Ramanujan, Department of Mathematics, NSCBM Govt. College, Hamirpur is going to celebrate National Mathematics Day by organizing a State Level Seminar on Applications of Mathematics in Daily Life on 22<sup>nd</sup> December, 2018.

It is true that in each and every sphere of our daily life mathematics provides its help and patronage without which we cannot do anything. Every dealing of our life begins and ends with the mathematical thinking and reasoning, e. g. daily house hold problems, food, clothing, idea of quantity and quality, daily accounts of income and expenditure, allocation of funds etc. Such type of day to day problems cannot be solved without the knowledge of mathematics.

The seminar will include invited talks by the distinguished Academicians, Scientists, Engineers, Doctors and presentations of papers by the various faculties of Colleges/Institutes, young researchers, students of the state to discuss the various applications of mathematics in daily life and conduct a state level Mathematics Olympiad and Quiz Competition among the students of various colleges of Himachal Pradesh.

### REGISTRATION FORM

State Level Seminar on Applications of Mathematics in  
 Daily Life  
 December 22, 2018

Name: .....

Designation: .....

Affiliation: .....

Male/Female: .....

Educational Qualifications: .....

Category: .....

(Faculty/Student/Delegate)

Mailing Address: .....

.....

Phone: .....

Email: .....

Will you be presenting a paper? (Yes/No)..

If yes, give title of the paper: .....

.....

Certified that the above information is true and correct to the best of my knowledge and belief.

Signature

### Accommodation

Those interested in accommodation in hotels on actual payment basis may request for the same in advance before 18<sup>th</sup> December, 2018. College will not provide any TA/DA/accommodation to the participants.

### State Level Seminar

On

**Importance of Mathematics in Everyday  
 Life (SLSIMEL - 2021)**



**On National Mathematics Day**

### Organized by

**Department of Mathematics  
 Netaji Subhash Chander Bose Memorial Govt.  
 College, Hamirpur (H. P.) 177005**

Website: [www.gchamirpur.org](http://www.gchamirpur.org)

Email: [gchamirpur-hp@nic.in](mailto:gchamirpur-hp@nic.in) Ph. No.: 01972222227

**Approved By Director of Higher Education  
 Himachal Pradesh, Shimla**



### About the Institute

Netaji Subhash Chander Bose Memorial Government College, Hamirpur (H.P.) came into existence in the year 1965, situated across SH – 39 at a distance of 2 kms. from the District Headquarter Hamirpur on Hamirpur-Sujanpur Road. The institution is a pioneer of higher education in the entire state, the motto of which is "Veertaa aur Balidaan", i.e., "Bravery and Sacrifice". The college stands for academic excellence, exemplary achievements in sports and cultural activities. It is an alma mater which all alumni look back to with fond memories.

## Organising Committee

**Patron** : Dr. Chandan Bhardwaj, Principal (Off.)  
**Coordinator** : Dr. G. C. Rana, Coordinator  
 Head, Department of Mathematics  
**Co-Coordinator**: Mr. Rajesh Kumar, Assistant Professor  
 Department of Mathematics  
**Convener** : Dr. S. K. Kango, Associate Professor  
 Department of Mathematics  
**Organising Secretaries** : Dr. Poonam Sharma, Assistant Professor  
 Mr. Pawan Kumar, Assistant Professor  
 Dr. Nirmal Singh, Assistant Professor

## Important Dates

### Registration Fee for Paper Presentation

Students / Research Scholar : Rs. 250/-  
 Teachers/ Academics : Rs. 400/ (Face to face)  
 : Rs. 250/- (for Online paper presentation)

**Last Date of Registration** : December 18, 2022

**College Level Mathematics declamation/Poster: Only for the Students of GC Hamirpur**

**December 22, 2022**

**Inauguration** : 10:15 AM  
**Paper Presentation** : 12 Noon - 3 PM  
**Declamation on Srinivasa Ramanujan:** 12 Noon - 01 PM  
**Quiz Competition** : 02 PM - 03 PM  
**Valedictory** : 03: 00 PM

**Note:** No registration fee for the students who are participating in Declamation/Quiz Competition on Srinivasa Ramanujan

## Advisory Committee:

1. Dr. M. S. Mishra, Associate Professor of Music
2. Mr. Vijay Kaundal, Associate Professor of Zoology
3. Dr. Amarjit Attri, Associate Professor of Sociology
4. Dr. Vijay Thakur, Associate Professor geography
5. Dr. Shashi K. Sharma, Associate Professor Chemistry
6. Ms. Neelam Guleria, Associate Professor of Physics
7. Dr. G. R. Katoch, Associate Professor of Hindi
8. Dr. Vijay K. Thakur, Associate Professor of Botany
9. Dr. Veshalee Singh, Associate Professor of Commerce
10. Ms. Alpana Sharma, Associate Professor of Economics
11. Dr. Pawan Verma, Associate Professor of Physical Education
12. Dr. Sangeeta Singh, Associate Professor of English
13. Dr. Uttam K. Sharma, Associate Professor of Pol. Science
14. Mr. Saurabh Sood, Assistant Professor of Journalism
15. Mr. Manoj Kumar, Assistant Professor of Music
16. Dr. Vinay Kumar, Assistant Professor of Sanskrit
17. Mr. Sanjay Kumar, Assistant Professor of History
18. Mr. Surender Kumar Thakur, Assistant Professor of TTM
19. Mr. Abhinav Sharma, Assistant Professor of Comp. Appl.
20. Dr. Amit Sharma, Assistant Professor of Education

## About the Seminar

On the occasion of 135<sup>th</sup> birth anniversary of famous Indian Mathematician Srinivasa Ramanujan, Department of Mathematics, NSCBM Govt. College, Hamirpur is going to celebrate National Mathematics Day by organizing a **State Level Multidisciplinary Seminar on Importance of Mathematics** on 22<sup>nd</sup> December, 2022.

It is true that in each and every discipline, mathematics provides its help and patronage without which every subject cannot do anything. Every dealing of our life begins and ends with the mathematical thinking and reasoning, e. g. daily house hold problems, food, clothing, idea of quantity and quality, daily accounts of income and expenditure, allocation of funds etc.

The seminar will include invited talks by the distinguished Academics and presentations of papers by the various faculties of Colleges/Institutes, young researchers, students of the state to discuss the importance of mathematics in various disciplines and will conduct a **College Level Mathematics Declamation and Quiz Competition** among the students of this college.

## State Level Multidisciplinary Seminar On Importance of Mathematics (SLMDSIM - 2022)



ON

**NATIONAL MATHEMATICS DAY**  
 December 22, 2022



## REGISTRATION FORM State Level Multidisciplinary Seminar On Importance of Mathematics December 22, 2022

Name: .....  
 Designation: .....  
 Affiliation: .....  
 Male/Female: .....  
 Educational Qualifications:.....  
 Category.....  
 (Faculty/Student/Delegate)  
 Mailing Address.....  
 Email: .....

Will you be participating in MD/QUIZ? (Yes/No)..  
 Will you be presenting a paper? (Yes/No).  
 If yes, give title of the paper:  
 .....

Certified that the above information is true and correct to the best of my knowledge and belief.

Signature

**Address for Correspondence**  
 Dr. G. C. Rana, 9418490222, Mr. Rajesh Kumar, 9418090945, Dr. S. K. Kango, 9418158892, Dr. Poonam Sharma, 9459318776, Mr. Pawan Kumar, 9459925393 and Dr. Nirmal Singh, 9805402686.  
 Send your paper abstract on or before 18<sup>th</sup> December, 2022 at Email: [slmidsim2022@gmail.com](mailto:slmidsim2022@gmail.com)

## About the Institute

Netaji Subhash Chander Bose Memorial Government College, Hamirpur (H.P.) came into existence in the year 1965, situated across SH - 39 at a distance of 2 kms. from the District Headquarter Hamirpur on Hamirpur-Sujanpur Road. The institution is a pioneer of higher education in the entire state, the motto of which is "Veertaa aur Balidaan", i.e., "Bravery and Sacrifice". The college stands for academic excellence, exemplary achievements in sports and cultural activities. It is an alma mater which all alumni look back to with fond memories.

**Organized by**  
**Department of Mathematics**  
 Netaji Subhash Chander Bose Memorial Govt.  
 College, Hamirpur (H. P.) 177005

**Organising Committee**

**Chief Patron** : Dr. Amarjeet Kumar Sharma, Director  
**Patron** : Dr. Chandan Bhardwaj, Principal  
**Chairman** : Dr. G. C. Rana, Associate Professor  
 Department of Mathematics  
**Co-Chairman** : Mr. Rajesh Kumar, Assistant Professor  
 Department of Mathematics  
**Convener** : Dr. S. K. Kango, Associate Professor  
 Department of Mathematics  
**Co-Convener** : Dr. Poonam Sharma, Assistant Professor  
**Organising Secretaries** : Mr. Pawan Kumar, Dr. Nirmal Singh  
 Department of Mathematics  
**Advisors** : Dr. M. S. Mishra, Dr. Vijay Koundal, Dr. Amarjit Lal,  
 Dr. Vijay Thakur (Geo.), Dr. Veshalee Singh


**Members**

Dr. Shashi Kumar, Associate Professor  
 Ms. Neelam Kumari, Associate Professor  
 Dr. G. R. Katoch, Associate Professor  
 Dr. Ratan Chand Sharma, Associate Professor  
 Mr. Vijay Thakur (Bot.), Associate Professor  
 Dr. Krishan Lal, Associate Professor  
 Dr. Prakash Thakur, Associate Professor  
 Ms. Alpna, Associate Professor  
 Dr. Pawan Kumar Verma, Associate Professor  
 Ms. Jyotsna, Associate Professor  
 Dr. Sangeeta Singh, Associate Professor  
 Dr. Uttam Sharma, Associate Professor  
 Mr. Saurabh Sood, Assistant Professor  
 Mr. Prashant Shrama, Assistant Professor  
 Mr. Manoj Kumar, Assistant Professor  
 Dr. Dinesh Sharma, Assistant Professor  
 Dr. Pushpender Singh Thakur, Assistant Professor  
 Dr. Naisergik D. Khanna, Assistant Professor  
 Ms. Monika Puri, Assistant Professor  
 Dr. Mala Sharma, Assistant Professor  
 Mr. Sunil Pathak, Assistant Professor  
 Mr. Sandeep Kumar, Assistant Professor  
 Dr. Vinay Sharma, Assistant Professor  
 Mr. Sanjay Kumar, Assistant Professor  
 Mr. Surender Kumar Thakur, Assistant Professor  
 Dr. Amit Sharma, Assistant Professor  
 Mr. Abhinav Sharma, Assistant Professor


**Advisory Committee/Invited Speakers**

Prof. S. P. Bansal, Vice-Chancellor, Himachal Pradesh University, Shimla, INDIA  
 Prof. Jyoti Prakash, Pro Vice-Chancellor, HP University, Shimla, INDIA  
 Prof. S. K. Tomar, Vice-Chancellor, J.C. Bose Univ. of Sc. and Tech. Faridabad,  
 Prof. Anil Vashishth, Kurukshetra University, Kurukshetra, INDIA  
 Prof. Malai Subbiah, Pondicherry University, Pondicherry  
 Prof. Khem Chand, Himachal Pradesh University, Shimla, INDIA  
 Prof. Ian Stewart, University of Warwick, United Kingdom  
 Dr. Heather Harrington, University of Oxford, United Kingdom  
 Prof. G. P. Rao, Member UNESCO-EOLSS Joint Committee, (UAE)  
 Prof. Rakesh Kumar, Namibia University of Science and Technology, Namibia  
 Dr. Dhannjy Yadav, University of Nurea, (Gnana)  
 Dr. Puneet Rana, Wenzhou-Kean University, Wenzhou (China)  
 Dr. S. Rajesh Pillai, Defence Research and Development Organization, Delhi  
 Dr. S. K. Pal, Defence Research and Development Organization, Delhi  
 Prof. Govindan Rangarajan, Indian Institute of Science, Bangalore, INDIA  
 Prof. P. G. Siddheshwar, Christ University of Bangalore, Karnataka (INDIA)  
 Prof. V. Srinivas, Tata Institute of Fundamental Research (TIFR), Mumbai  
 Dr. Jaya Mukherjee, Bhabha Atomic Research Centre, Trombay, Mumbai  
 Prof. J. Prathap, Gulbarga University, Gulbarga (Karnataka), INDIA  
 Dr. Gayendra Pratap Singh, Jawaharlal Nehru University, Delhi, INDIA  
 Prof. Pradeep G. Siddheshwar, Bangalore University, Bangalore, INDIA  
 Prof. R. P. Sharma, Himachal Pradesh University, Shimla, INDIA  
 Prof. Veesa Sharma, Himachal Pradesh University, Shimla, INDIA  
 Prof. Ajit Iyral Singh, Indian Statistical Institute New Delhi 110 016, INDIA  
 Prof. J. S. Dhinman, Himachal Pradesh University, Shimla, INDIA  
 Prof. Vinay Kanwar, UET, Panjab University, Chandigarh, INDIA  
 Prof. Urvasi Gupta, Dr. S. S. Bhamagar UCET, PU Chandigarh, INDIA  
 Prof. K. L. Verma, Career Point University, Hamirpur, INDIA  
 Prof. P. C. Patyal, Retd. Principal, Govt. College, Hamirpur, INDIA  
 Dr. H. S. Jamwal, Retd. Principal, GC Bhoranj, INDIA  
 Dr. (Mrs.) Anju Batta Sehgal, Retd. Principal, GC Hamirpur, INDIA  
 Prof. Y. D. Sharma, National Institute of Technology, Hamirpur, INDIA  
 Prof. Sunil, National Institute of Technology, Hamirpur, INDIA  
 Dr. C. B. Mehta, Principal, Govt. College, Sanjauli, INDIA  
 Dr. A. S. Banyal, Principal, Govt. College, Sujampur, INDIA  
 Dr. Ashwani Sharma, Govt. College, Barsar, Hamirpur, INDIA  
 Dr. Ashwani Sharma, Govt. College, Dhanosa, Hamirpur, INDIA  
 Prof. Rakesh Kumar, Govt. College, Bhoranj, Hamirpur, INDIA  
 Dr. Anil Gurtam, Govt. College, Nadsam, Hamirpur, INDIA  
 Prof. S. R. Sharma, Chitkara University, Solan, Himachal Pradesh, INDIA  
 Dr. Pankaj Thakur, ICFAI University, Solan, Himachal Pradesh, INDIA  
 Dr. Tilak Raj Sharma, HPU Regional Centre, Dharamshala, INDIA  
 Dr. Vijayata Pathana, HPU Regional Centre, Dharamshala, INDIA  
 Prof. R. K. Vats, National Institute of Technology, Hamirpur, INDIA  
 Dr. P. K. Sharma, National Institute of Technology, Hamirpur, INDIA  
 Prof. Rakesh Sharma, Central University of Himachal Pradesh, Dharamshala  
 Dr. Sanjeev Kumar, Associate Professor, Govt. College, Jognidmagar, INDIA  
 Dr. Jagjit S. Patyal, Govt. College, Bhoranj, Hamirpur, INDIA  
 Prof. Rajna Chaudhri, Govt. College, Nadsam, Himachal Pradesh, INDIA  
 Dr. Ramesh Thakur, Associate Professor, Govt. College, Bangana, Usa, INDIA  
 Dr. Divya Sharma, Govt. College, Sujampur, Himachal Pradesh, INDIA  
 Prof. Ashok Kumar, Govt. College, Barsar, Hamirpur, INDIA  
 Dr. Satish Garg, Govt. College for Girls, Kurukshetra, Haryana  
 Dr. Vikram Kapil, Govt. College, Ghumarwin, Himachal Prade

**2<sup>nd</sup> International Conference  
 on  
 Mathematics in Space and Applied  
 Sciences  
 (ICMSAS - 2023)  
 March 03-04, 2023  
 Sponsoring agencies  
 DRDO, ISRO, DST & NBHM**



**Organized by**



**Department of Mathematics**  
 Netaji SubhashChander Bose Memorial Govt. College,  
 Hamirpur (H. P.) 177005  
 Website: [www.gchamirpur.org](http://www.gchamirpur.org)  
 Email: [icmsas2023@gmail.com](mailto:icmsas2023@gmail.com) Ph. No.: 01972222227

**About the Institute**

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The college is affiliated to the Himachal Pradesh University Shimla u/s 2(f)&12(B) of UGC act and has been accredited B grade by NAAC in the year 2015. The college offers different undergraduate programmes in humanities, science and Commerce. Postgraduate Courses in Mathematics, English, Hindi, Economics and Commerce are also run by the college. The college also runs self-financing courses in BBA, BCA and PGDCA.

**About the Conference**

The basic objective of the conference is to provide a platform for academicians, scientists, engineers and researchers to discuss the applications on Mathematics in Space Technology in particular and in Applied Sciences in general.

The deliberations of the conference include the invited lectures by eminent Scientist/Mathematicians/Scholars from India & abroad and research paper presentation by the faculties of various universities, technical educational institutions & colleges and the young researchers relevant to the theme. This will provide an in-depth analysis of the subject and update the knowledge of the participants from academic/research institutions. Further, the conference intends to promote high standard in Colleges by way of extending facilities to teachers, researchers and students, by providing a forum for sharing their knowledge, experience and research findings.

Moreover, Hamirpur is known as education hub of Himachal Pradesh. National Institute of Technology, Hamirpur is situated adjacent to our institution where the students of various streams of Engineering and Basic Sciences are studying. The conference will really motivate the students and will create an atmosphere of research and study in the subjects like Mathematics, Physics, Computer Sciences and Health Sciences etc. We hope that the students as well as teachers of the area will be benefited. The conference will be primarily devoted to the original research, expository, articles that encourage communication between researchers and experts in areas of application.

**In case of need, participants from India and abroad may contact:**  
 Dr. Sanjay Kango, Conference Convener ICMSAS-2023  
 Associate Professor, Department of Mathematics  
 NSCBM Govt. College, Hamirpur (HP)-India  
 Cell: 9418158892, 8219897616  
 Email: [icmsas2023@gmail.com](mailto:icmsas2023@gmail.com)

**Tourist Places**



**Maa Jwalamukhi Temple**



**Maa Bagulamukhi Temple**



**Baba Balak Nath Temple**

**Call for Papers**

Papers are invited for conference on the following areas of interest that include, but are not limited to.

- Main Themes of the Conference:
- Space and Defence Technologies: Data Analysis, Modeling and Estimation, Operational Analysis, Security, Cryptography
- Algebra
- Physical Sciences: Physics, Chemistry etc.
- Health and Life Sciences
- Computer Sciences
- Fluid Dynamics: Nanofluids, Non-Newtonian Fluids, Ferrofluids etc.
- Solid Mechanics
- Engineering Sciences
- Agriculture & Horticulture Sciences
- Economy and Management, Social Sciences, Humanities etc.

Abstract/Manuscript for oral / Poster Presentation should be typed in MS Word with 12 pt. Times New Roman font in one and half line spacing. The Registration form complete in all respect, abstract and full length papers should be sent through email on [icmsas2023@gmail.com](mailto:icmsas2023@gmail.com) within due dates.

**Accommodation**

Lodging and boarding for outstation participants will be arranged on request depending on the availability. Those interested in accommodation in hotels on actual payment basis may request for the same in advance.

**Proceedings of Conference**

Proceedings of the conference are proposed with ISBN/ISSN.

**Important Dates**

Last date of submission of abstract: February 05, 2023  
 Acceptance of abstract: February 08, 2023  
 Last date for full paper submission: February 15, 2023  
 Last date of registration: February 15, 2023

**Registration Fee**

Participant/Delegate	Registration Fee
Research Scholar (Indian)	1000/- INR
Delegates (Indian)	1500/- INR
Accompanying Person	1000/- INR
Delegates (outside India)	50 US Dollar
Accompanying Person (Outside India)	30/- US Dollar

Note: Online registration fee can be paid through Google Pay on mob. No.: 9418158892 (Sanjay Kango)  
 (Kindly enclose screen shot of payment along with registration form)

or Online payment through Bank  
 Beneficiary Name: Head Department of Mathematics  
 Bank Name: Kangra Central Cooperative Bank Ltd.  
 Branch Name: KCCB Branch ANOO (Hamirpur)  
 Account Number: 50064722544  
 IFSC: KACE0000063

After payment send the following information through email-  
 1. Scanned copy of counter foil/receipt of payment with proper date  
 2. Name of bank, Branch and bank code with date

For any query, you may contact:  
 Dr. G. C. Rana, Chairman ICMSAS-2023 (9418490222)  
 Mr. Rajesh Kumar, Co-chairman ICMSAS-2023 (9418090945)  
 Dr. Sanjay Kango, Convener ICMSAS-2023 (9418158892)  
 Dr. Poonam Sharma, Co-convener ICMSAS-2023 (9805018776)  
 Mr. Pawan Kumar, Org. Secretary ICMSAS-2023 (9459925393)  
 Dr. Nirmal Singh, Org. Secretary ICMSAS-2023 (9805402686)  
 Email ID for any correspondence: [icmsas2023@gmail.com](mailto:icmsas2023@gmail.com)

## NET/GATE Qualified Students

Roll Number:	HP03000153	Application Number:	211610055914	Photograph
Candidate's Name :	JYOTI	Father's Name	NARAIN KUMAR	
Gender :	Female	Date of Birth :	18-06-2000	

### III. Lectureship/Assistant Professor (NET):-

(i) The following candidates have qualified the eligibility test for Lectureship/Assistant Professor (NET). The candidates qualifying for Lectureship/Assistant Professor (NET) will be eligible for recruitment as lecturer as well as for JRF-SHIP in a Scheme/Project, if otherwise suitable as per the eligibility criteria of that Scheme/Project. However, they will not be eligible for regular JRF-NET Fellowship. They will be eligible to pursue Ph.D program with or without any fellowship other than JRF-NET.


ROLL No	RANK	ROLL No	RANK	ROLL No	RANK
GJ12000696	27	GJ13000092	86	GJ14000039	117
GO01000223	91	GO01000281	52	GO01000292	51
GO01000646	35	GO01000749	76	HP01000105	138
HP01000168	56	HP03000153	128	HP03000213	67
HP03000354	78	HP03000394	55	HP03000493	81

# GATE 2022

## GATE 2022 Scorecard

Graduate Aptitude Test in Engineering  
अभियांत्रिकी स्नातक अभिक्षमता परीक्षा

Graduate Aptitude Test in Engineering (GATE)

Name of Candidate	JYOTI	 <span style="font-size: 1.5em; font-family: cursive;">Jyoti</span>
Parent's/Guardian's Name	NARAIN KUMAR	
Registration Number	MA22S28017106	
Date of Birth	18-Jun-2000	
Examination Paper	Mathematics (MA)	

GATE Score:	404	Marks out of 100:	30.33		
All India Rank in this paper:	1389	Qualifying Marks*	General	EWS/OBC (NCL)	SC/ST/PwD
Number of Candidates Appeared in this paper:	13518		27.3	24.5	18.2

Valid up to 31<sup>st</sup> March 2025

Ranjan Bhattacharyya

**Prof. Ranjan Bhattacharyya**  
 Organising Chairman, GATE 2022  
 on behalf of NCB-GATE, for MoE



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\* A candidate is considered qualified if the marks secured are greater than or equal to the qualifying marks mentioned for the category for which valid category certificate, if applicable, is produced along with this score card.


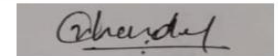
Organising Institute: Indian Institute of Technology Kharagpur

# GATE 2022 GATE 2022 Scorecard

Graduate Aptitude Test in Engineering


Graduate Aptitude Test in Engineering (GATE)

अभियांत्रिकी स्नातक अभिक्षमता परीक्षा

Name of Candidate	VISHAL CHANDEL	
Parent's/Guardian's Name	SHOBHA DEVI	
Registration Number	MA22S28018052	
Date of Birth	17-May-1999	
Examination Paper	Mathematics (MA)	

GATE Score:	<b>357</b>	Marks out of 100:	<b>27.67</b>		
All India Rank in this paper:	<b>2041</b>	Qualifying Marks*	General	EWS/OBC (NCL)	SC/ST/PwD
Number of Candidates Appeared in this paper:	<b>13518</b>		<b>27.3</b>	<b>24.5</b>	<b>18.2</b>

Valid up to 31<sup>st</sup> March 2025

  
Prof. Ranjan Bhattacharyya  
Organising Chairman, GATE 2022  
on behalf of NCB-GATE, for MoE



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\* A candidate is considered qualified if the marks secured are greater than or equal to the qualifying marks mentioned for the category for which valid category certificate, if applicable, is produced along with this score card.

Organising Institute: Indian Institute of Technology Kharagpur



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M. Sc. Mathematics Class Room