

**DR. AMBEDKAR COLLEGE,
DEEKSHABHOOMI, NAGPUR-10**

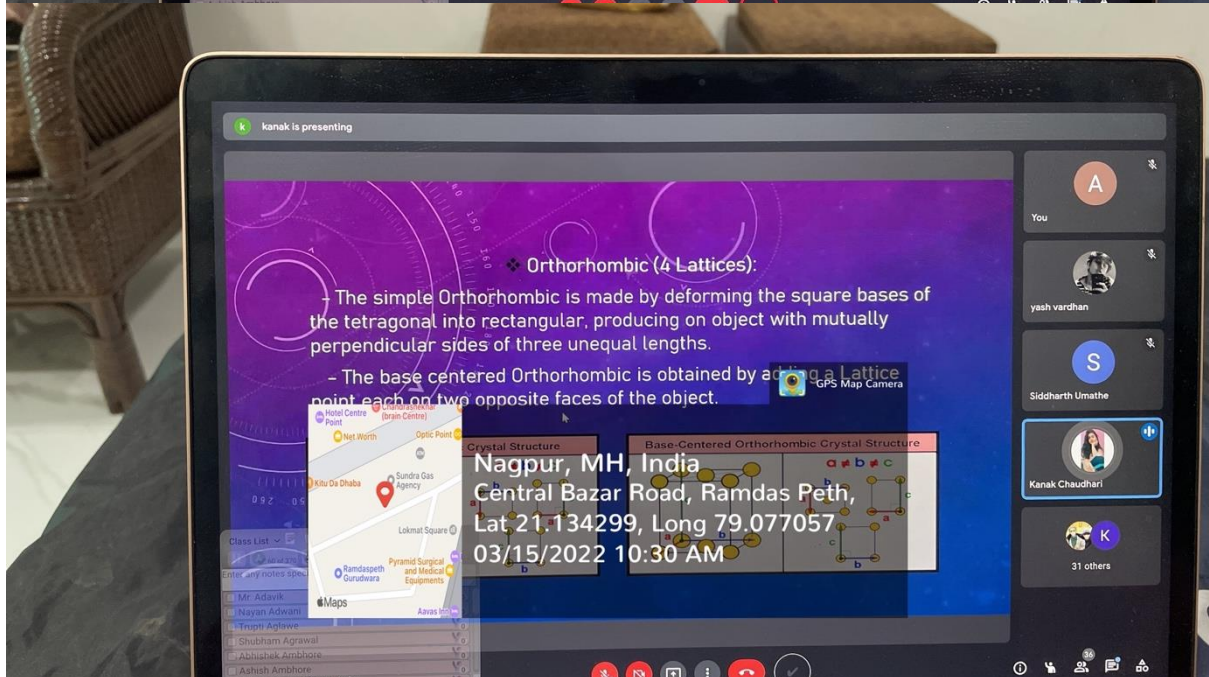
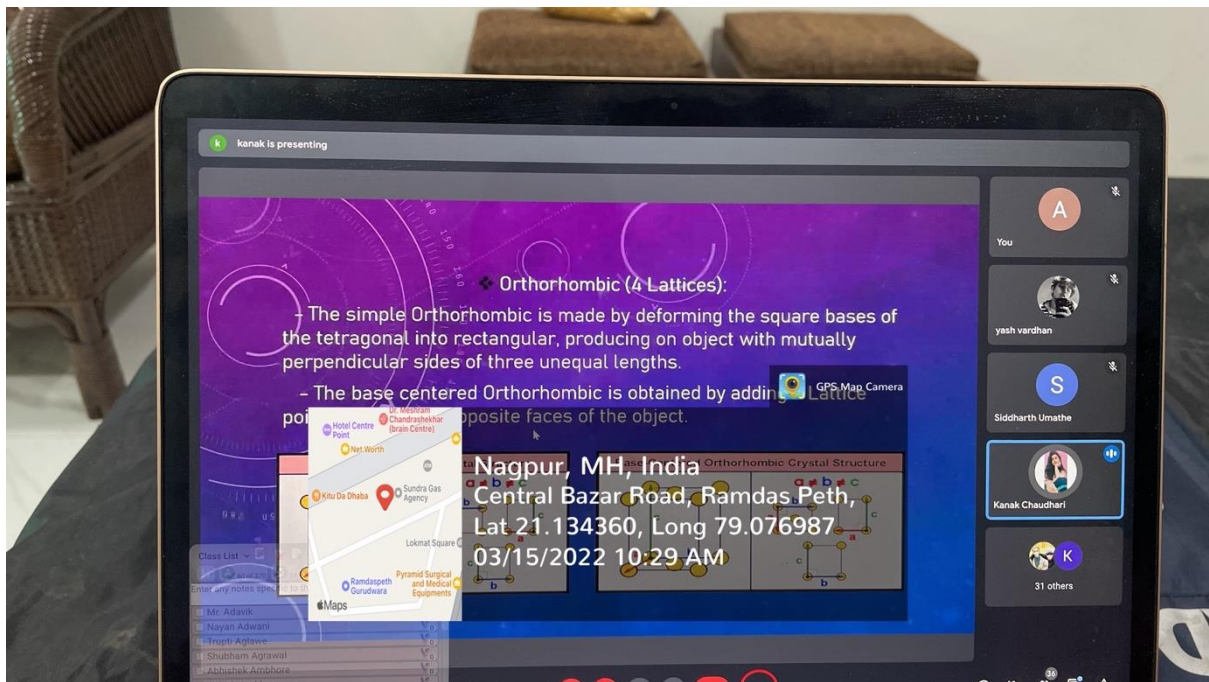
Name of the Programme : Student Seminar
Date of the Programme : 7th March to 16th March 2022
Number of Participants : 50
Hosted by : Department of Physics

Report of Student Seminar

By Students of Semester IV of Physics Department

Department of physics held online student class seminar n Google meet for students of BSc second year (4th semester) from 7th March to 16th March 2022 in class time in which they were instructed to include topics from their unit of Solid State Physics. The seminar was held to discuss the topics and exchange ideas and information regarding it. The seminar started with a brief introduction by Karan Choudhary, which was later followed by the first seminar on the topic, **Introduction of Solid State Physics and Periodicity** presented by Shrishti Khare, secondly, the topic ,**Crystal Structure, Lattice Types , Lattice Plane** was presented by Avanee Deshpande and Pranali Dhoke, **Lattices and Bases** was presented by Khushi Gaikwad , the topic **Fundamental Translation Vector and Seitz cell** was presented by Shankari Khokaley , **Unit cell and Primitive Cell** was presented by ECG Sudharshan group, **Miller indices and Packing Fraction** was presented by Angelina Francis, **Bravais lattices** was presented by Kanak Chaudhari , **Coordination Number** was presented by Chetna Nerkar , **Interplanar Distances** was presented by Tanaya Kirpan, **Crystal Structures of NaCl , Diamond, CaCl and Zns** was presented by Khusboo Chandravanshi . All

the topics were taken from Unit 1 of the syllabus. A doubt session was also held. The seminar was concluded by Dr Aarti Wazalwar on a note of appreciation. She also cleared the doubts of the students and the sessions were very interactive.



kanak is presenting

Monoclinic (2 lattices):

The simple Monoclinic is obtained by distorting the rectangular faces perpendicular to one of the orthorhombic axis into general parallelograms.

By similarly stretching the base-centred orthorhombic one produces the base-centred monoclinic.

Base-Centered Monoclinic Crystal Structure

Nagpur, MH, India
 Central Bazar Road, Ramdas Peth,
 Lat 21.134215, Long 79.077229
 03/15/2022 10:30 AM

GPS Map Camera

Class List

Mr. Adavik

tejas nandanwar has left

Shubham Agrawal

Abhishek Ambhore

Ashish Ambhore

10:30 | kgd-lwwt-hdm

You

yash vardhan

Siddharth Umathe

Kanak Chaudhari

29 others

Chetna Nerkar is presenting

DR. AMBEDKAR COLLEGE
DEEKSHABHOOMI NAGPUR

ROBERT WATSON-WATT

GROUP LEADER: KHUSHI DWANE
 GROUP MEMBERS: NEHAL AMBHURKAR
 KARAN CHOUDHARY

QUNLIAN SHENDE
 Hotel Centre
 Chandreshkhar (Bram Centre)

Net Worsh

Kitru Da Dhaba

Sundra Gas Agency

Lokmat Square

Ramdaspath Gurudwara

Pyramid Surgical and Medical Equipments

Nagpur, MH, India
 Central Bazar Road, Ramdas Peth,
 Lat 21.134310, Long 79.077012
 03/15/2022 10:38 AM

GPS Map Camera

You

Kanak Chaudhari

Siddharth Umathe

Angelina Francis

24 others

Chetna Nerkar is presenting



ROBERT WATSON-WATT

GROUP LEADER: KHUSHI DWANE
 GROUP MEMBERS: NEHAL AMBHURKAR
 KARAN CHOUDHARY
 GUNJAN SHENDE
 AVANTI BHARATHI



Nagpur, MH, India
 Central Bazar Road, Ramdas Peth,
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10:38 | kgd-iwwt-hdm

Class List

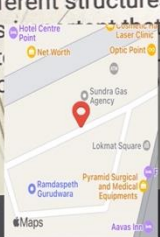
Participants: You, Kanak Chaudhari, Siddharth Umathe, Angelina Francis, 24 others

Chetna Nerkar is presenting

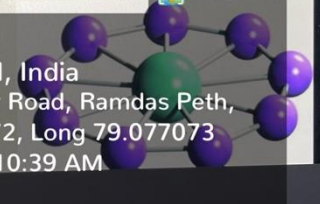
Coordination Number :

The coordination number is defined as the number of nearest equidistance neighbors around a lattice point (or atom) in given structure.

Coordination compound have many different structures or shapes and it is not that we are able to categorise the structures of the coordination compound.

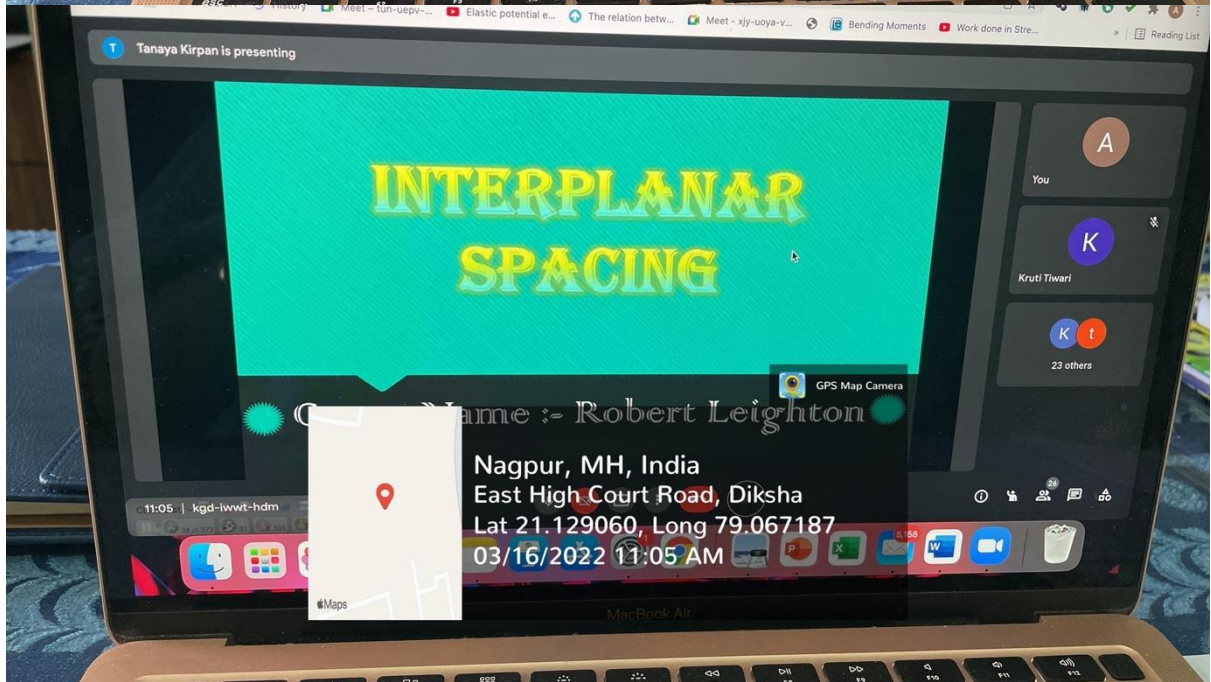
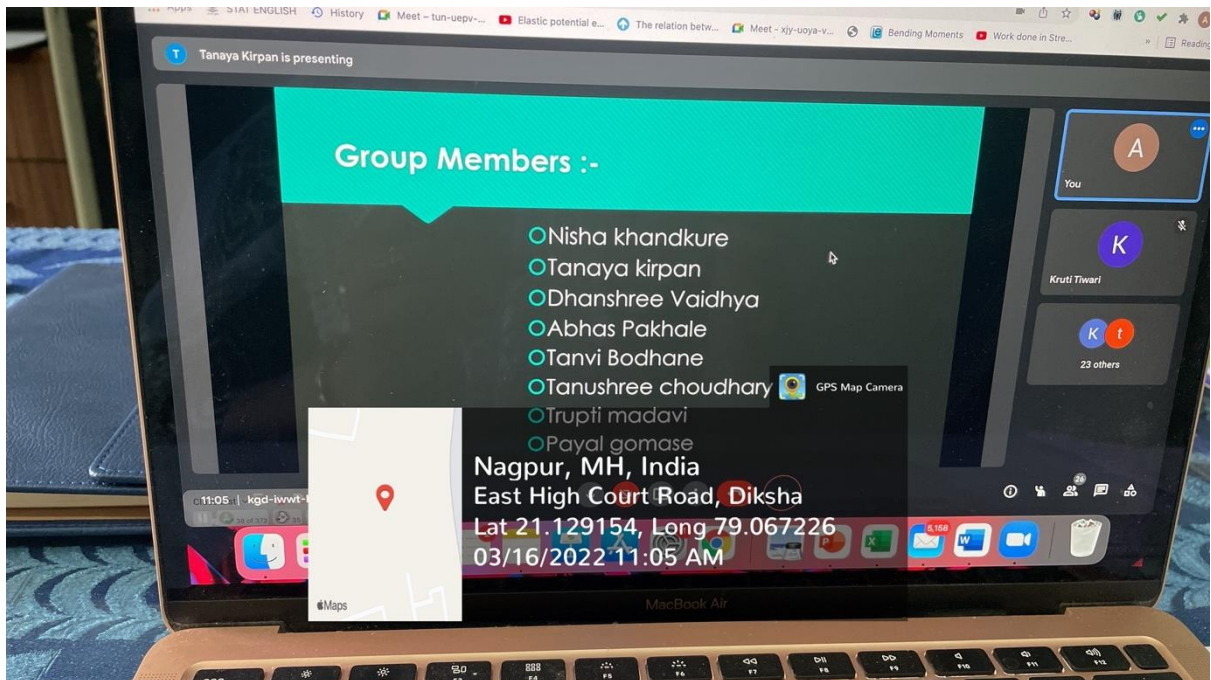


Nagpur, MH, India
 Central Bazar Road, Ramdas Peth,
 Lat 21.134272, Long 79.077073
 03/15/2022 10:39 AM



10:39 | kgd-iwwt-hdm

Participants: You, Kanak Chaudhari, Siddharth Umathe, Angelina Francis, 24 others



Chetna Nerkar is presenting

There are a number of rules that allow for a fair accuracy in structure prediction :

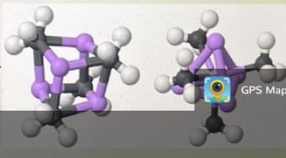
COORDINATION NUMBER =1

The coordination number 1 is very rare. When there is one point of attachment, then there are usually reactive.

Coordination sites at the metal ion that lead to cluster formation.

This reduce the energy and increases the coordij

FOR EX



Nagpur, MH, India
Central Bazar Road, Ramdas Peth,
Lat 21.134241, Long 79.077098
03/15/2022 10:41 AM

Participants: You, Kanak Chaudhari, Siddharth Umathe, Angelina Francis, 23 others


10:41 | kgd-iwwt-hdm

Chetna Nerkar is presenting

MAIN FACTORS DETERMING CNS

- Shape and size of ligands
- Size of metal ion
- Electron configuration of metal

Star interactions



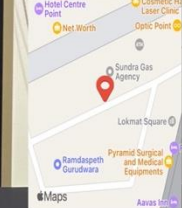
Nagpur, MH, India
Central Bazar Road, Ramdas Peth,
Lat 21.134209, Long 79.077127
03/15/2022 10:39 AM

Participants: You, Kanak Chaudhari, Divya kokode, Angelina Francis, 25 others

Divya kokode has joined

Chetna Nerkar is presenting

- MAIN FACTORS DETERMINING CNs
 - Shape and size of ligands
 - Size of metal ion
 - Electron configuration of metal



Star interactions
Nagpur, MH, India
Central Bazar Road, Ramdas Peth,
Lat 21.134265, Long 79.077101
03/15/2022 10:39 AM

A

You

Kanak Chaudhari

S

Siddharth Umathe

Angelina Francis

24 others