

DAV COLLEGE BATHINDA

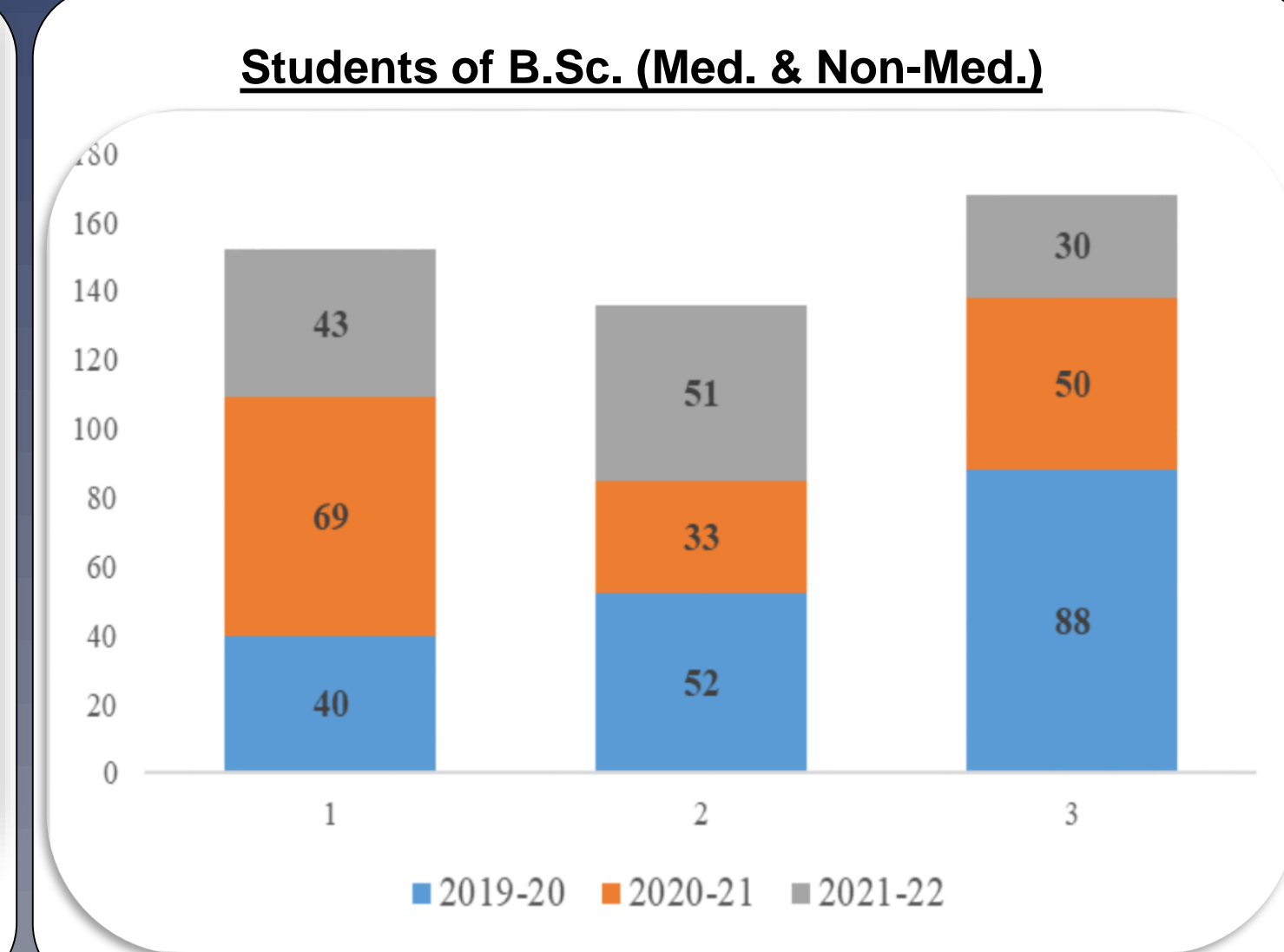
ANNUAL PROGRESS REPORT OF DBT STAR COLLEGE SCHEME: 2020-21



San. No. BT/HRD/11/019/2020
Date of Advisory Committee Meetings: 11/11/2020 and 25/05/2022

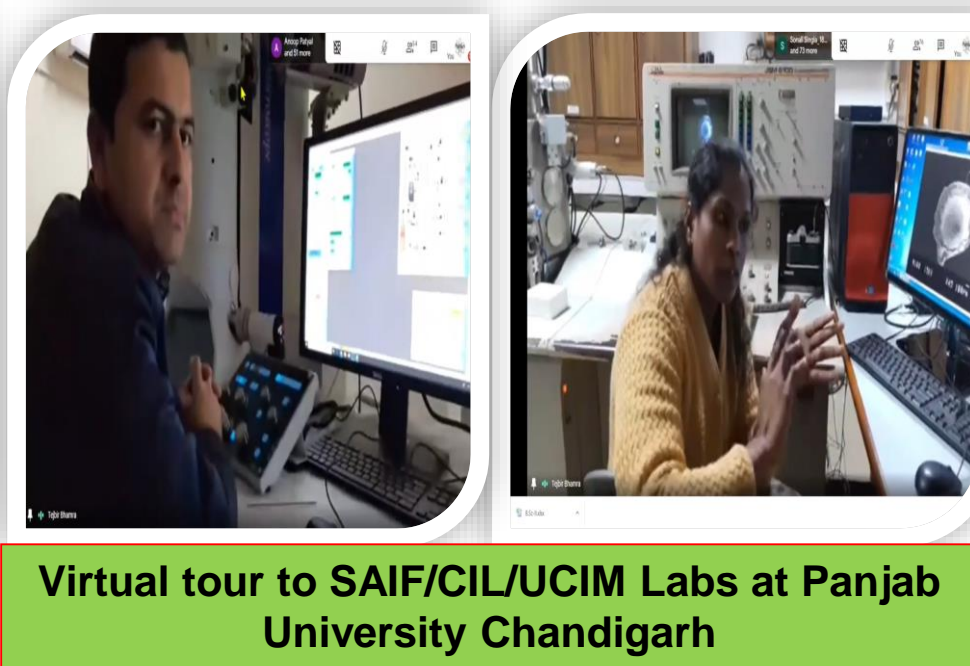
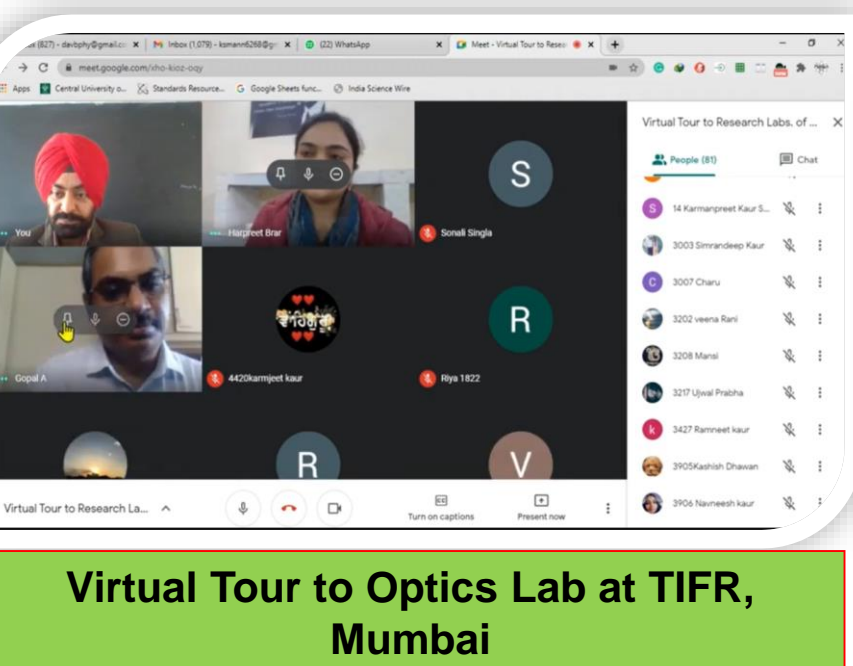
Participating Departments and Courses offered:

Name of Department	Courses offered	Regular Faculty Members
Chemistry	B.Sc. (Medical)	Total 5 Ph.D. (03) Without Ph.D. (02) Dr. Parveen Bala Dr. Paramjeet Kaur Dr. Neha Jindal
	B.Sc. (Non-Medical) M.Sc.-Chemistry	
Physics	B.Sc. (Non-Medical)	Total 4 Ph.D. (03) Without Ph.D. (01) Dr. Gurpreet Singh Dr. Kulwinder Singh Mann Dr. Vikas Duggal
	B.Sc. (Non-Medical with Computer)	



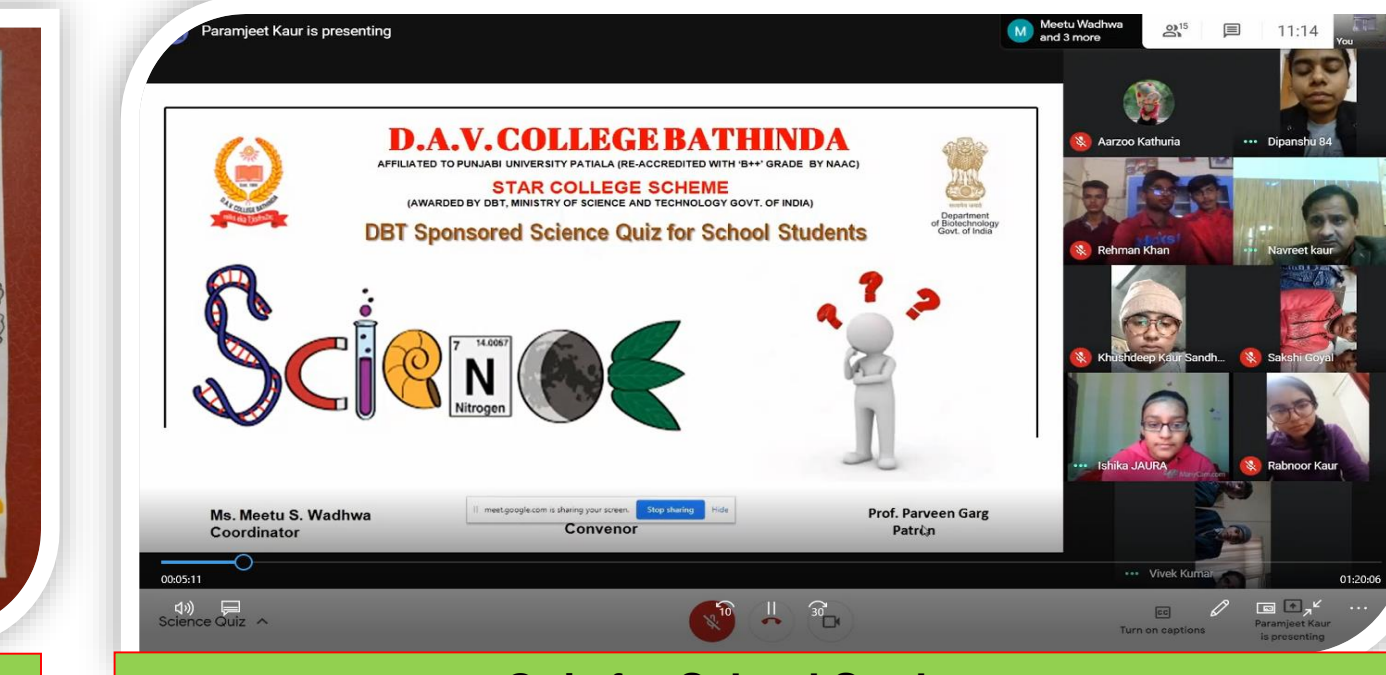
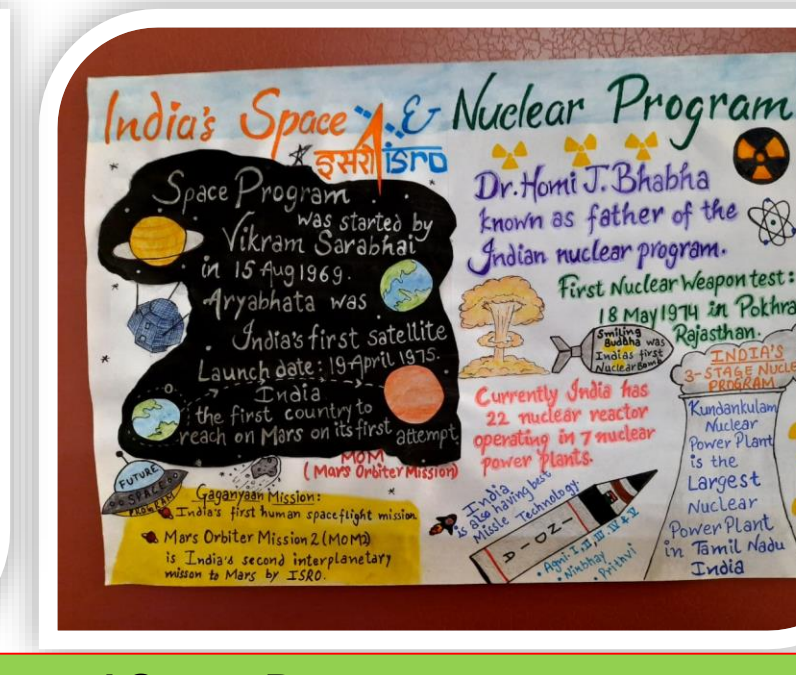
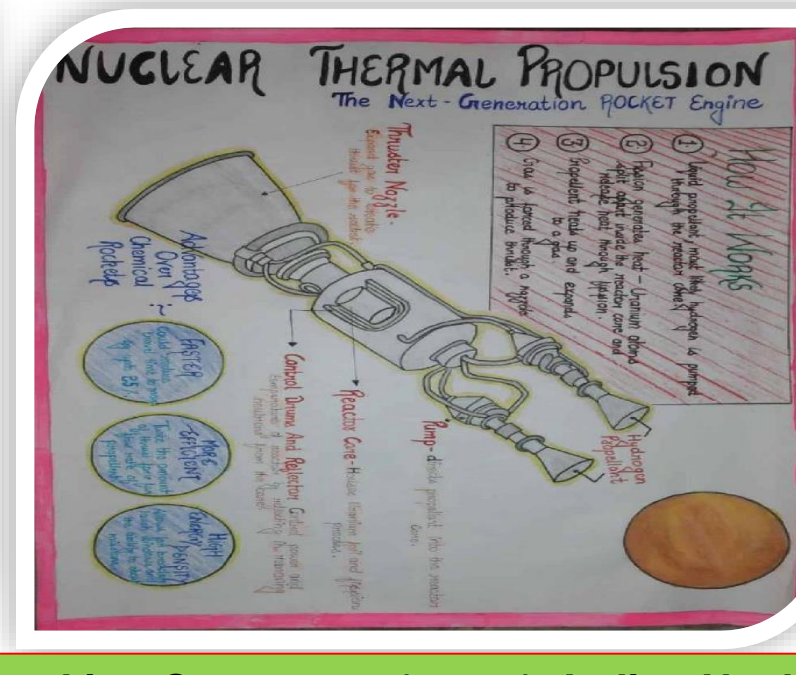
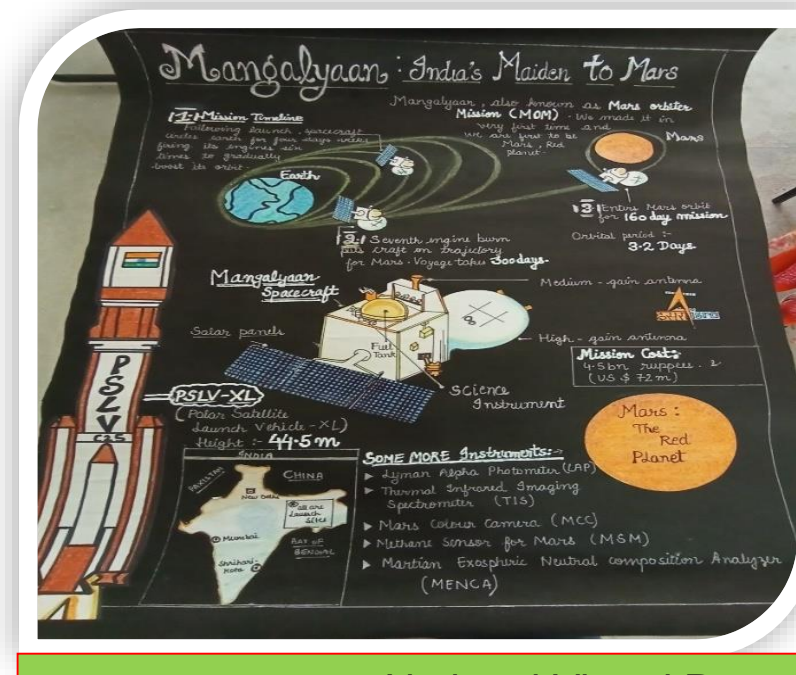
Visits to Research Institutes/Industries :

#	Name of the Research institute/Industry	Date
1	Virtual Tour to Optics Lab. at TIFR, Facilitated by Dr. Venu Gopal Achanta, Professor, Department of Condensed Matter Physics and Material Science, TIFR, Mumbai (Beneficiaries: 35)	05/12/2020
2	Virtual tour to SAIF/CIL/UCIM Labs at Panjab University Chandigarh: Resource persons: Mr. Tejvir Singh; Ms. Anitha MB; Dr. Rajendra Singh (Beneficiaries: 35)	11/12/2020
3	Industrial Visit: P.P. Industries Pvt. Ltd., Bathinda & Aggarwal Corrukrafts Pvt. Ltd., Bathinda (Beneficiaries: 35)	18/02/2021
4	Industrial Visit to National Fertilizer Limited, Bathinda (Beneficiaries: 35)	19/03/2021



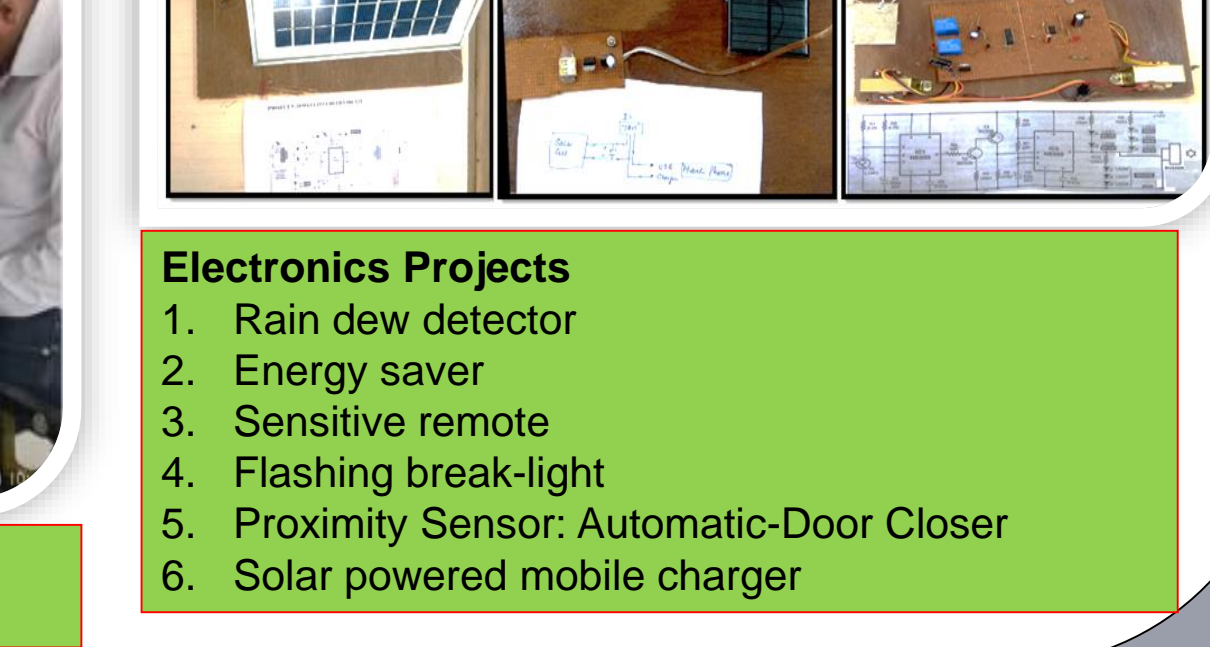
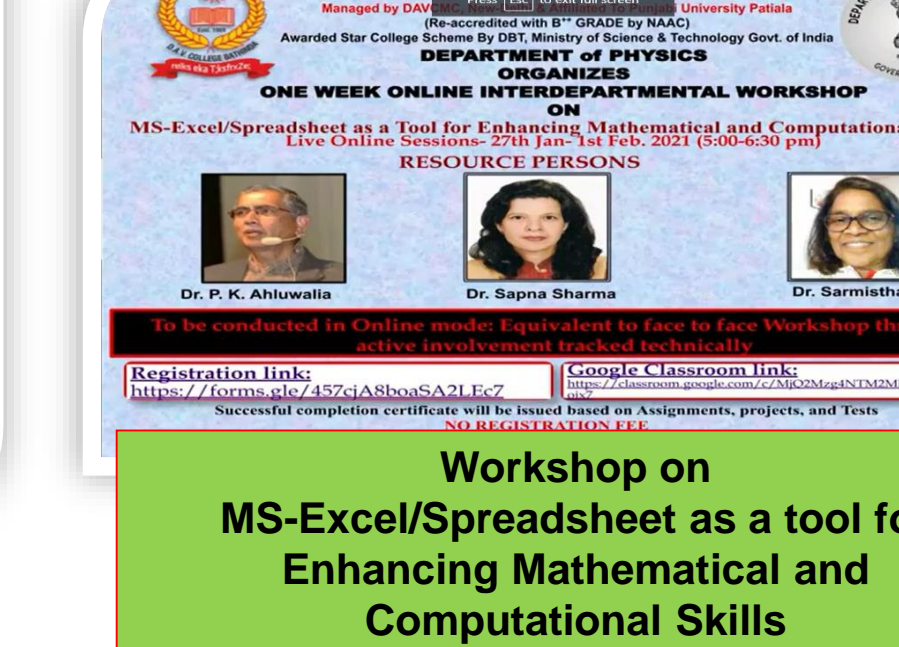
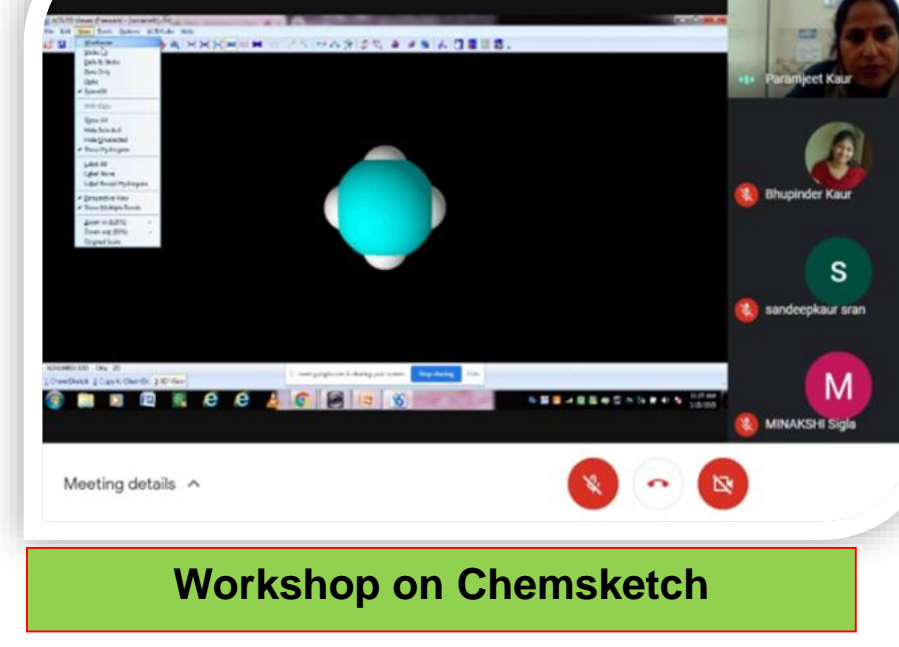
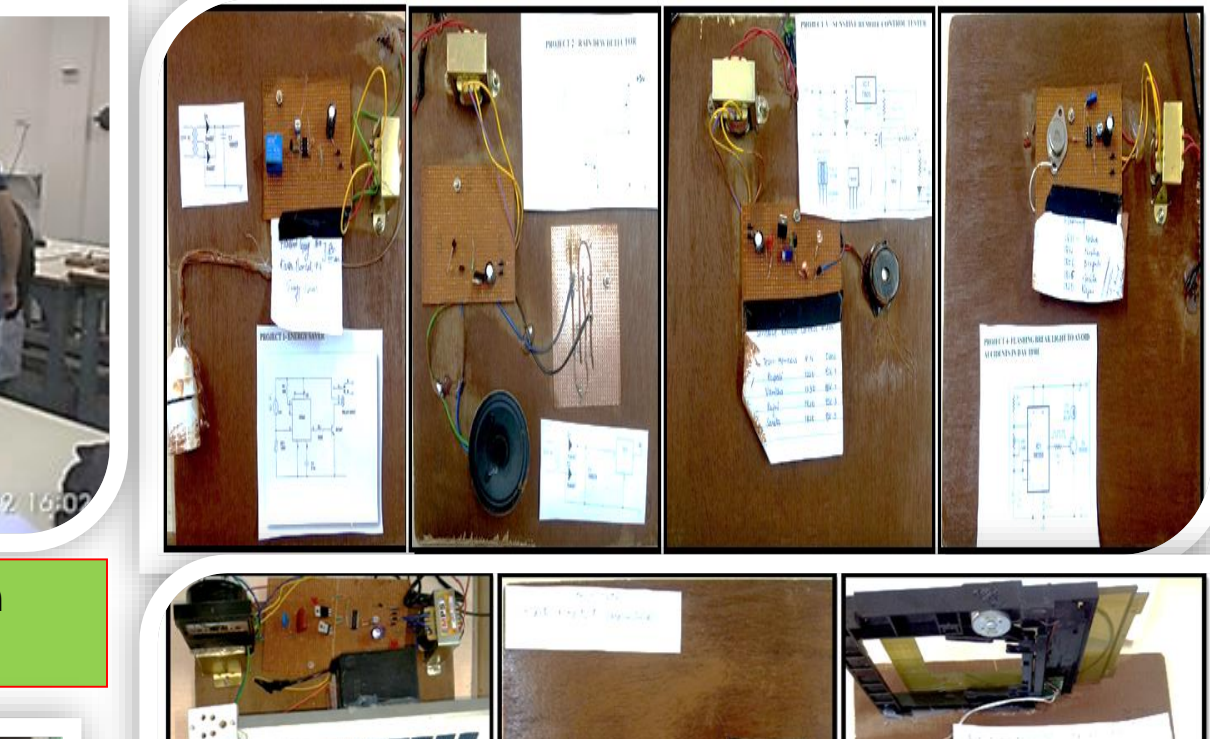
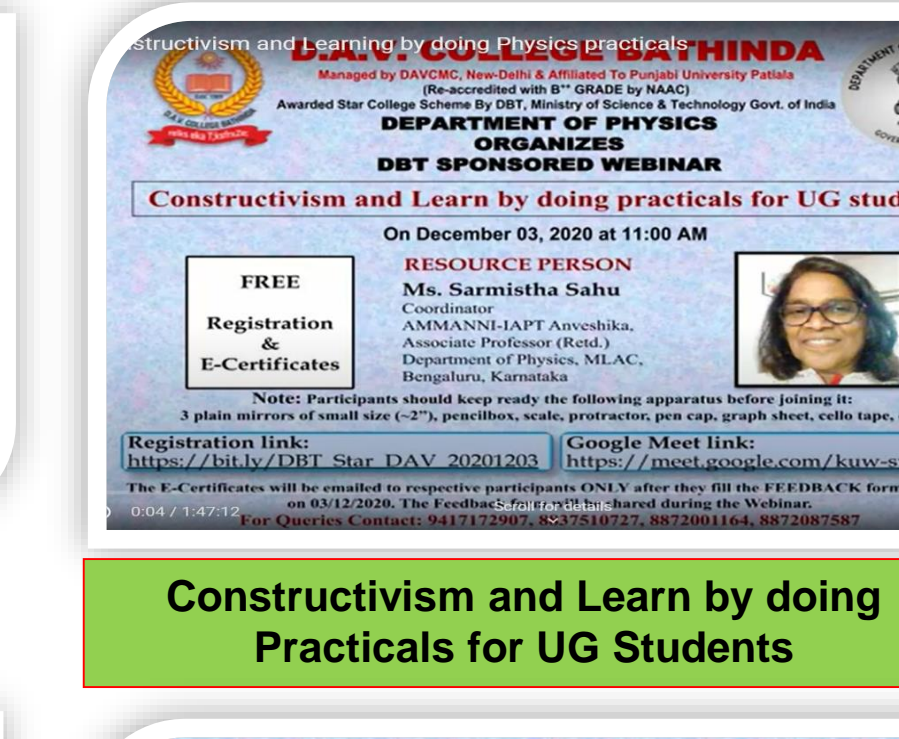
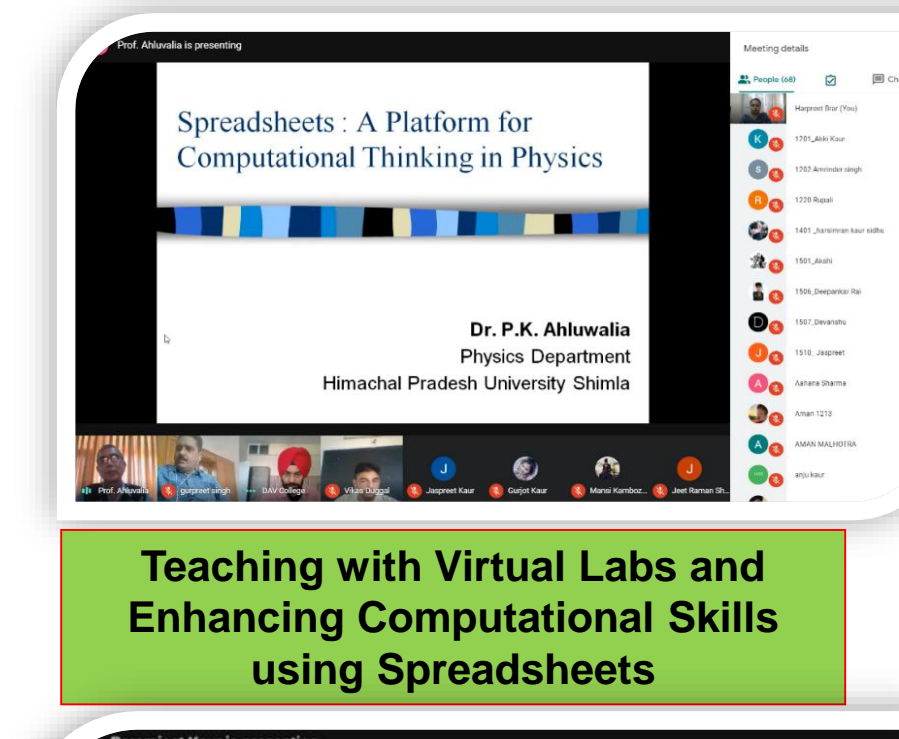
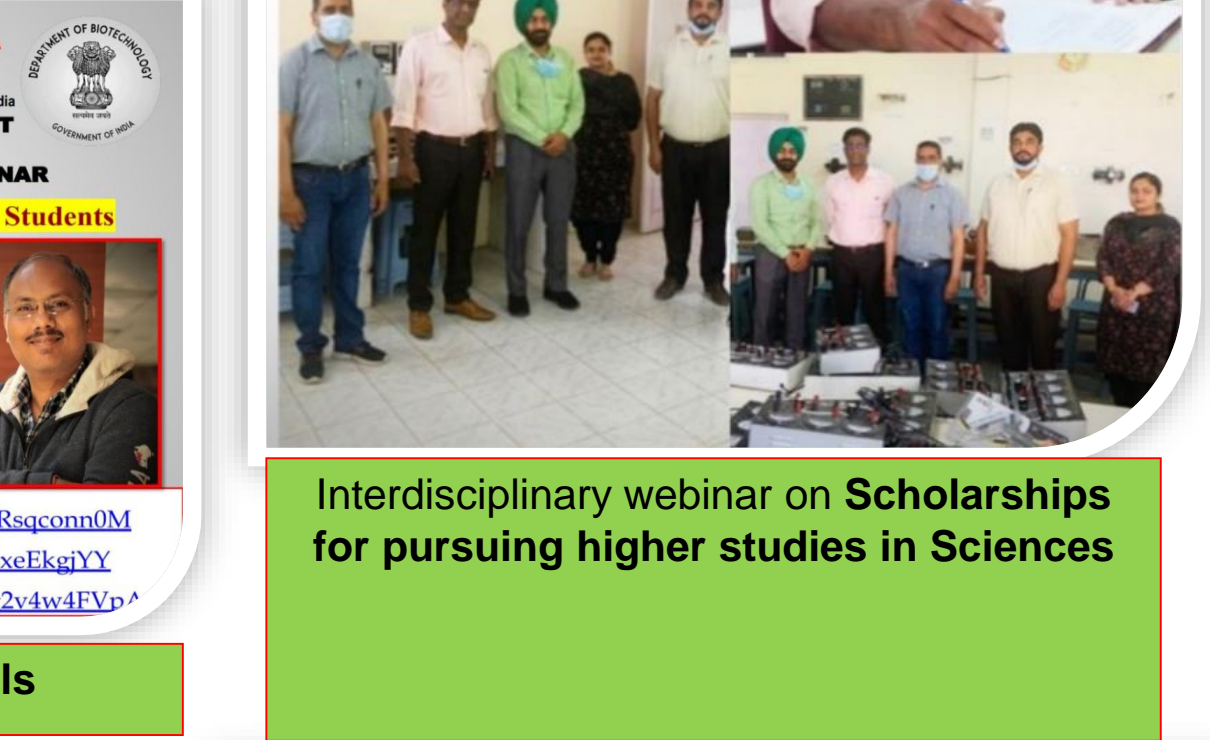
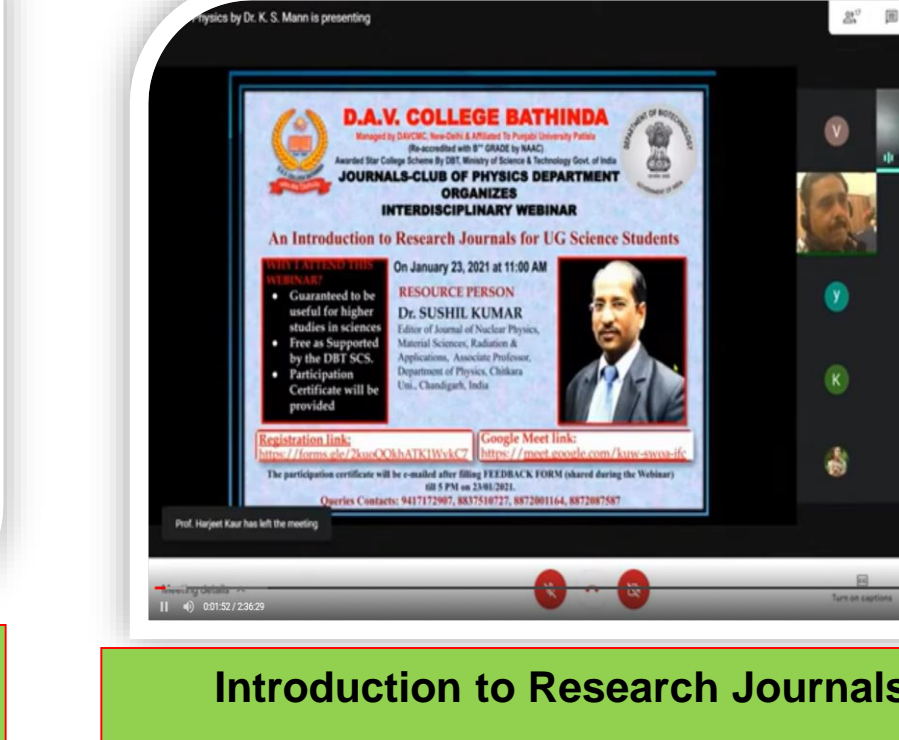
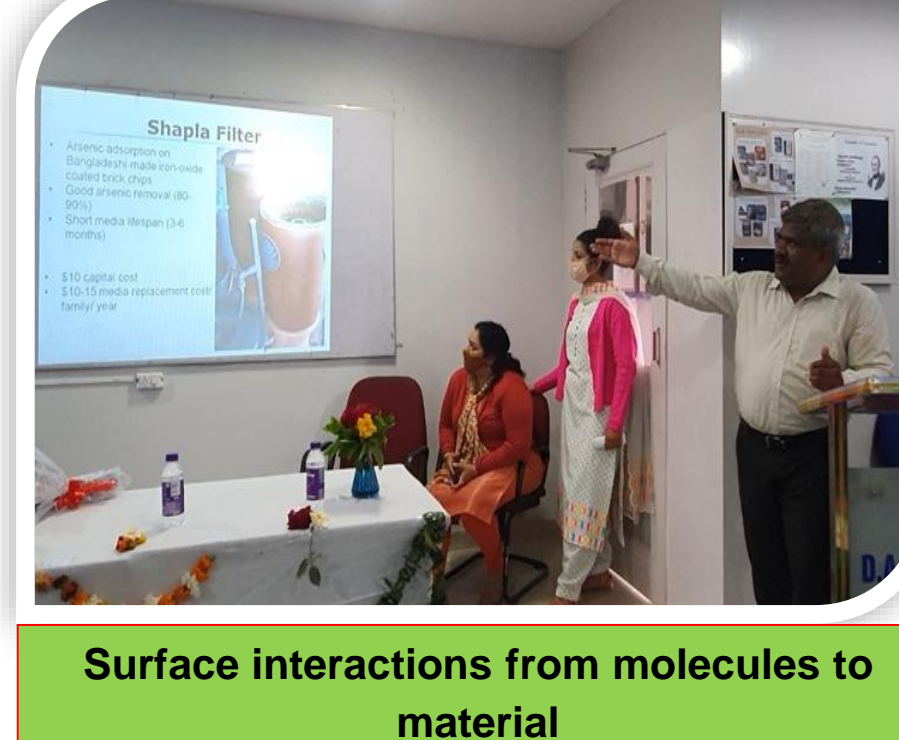
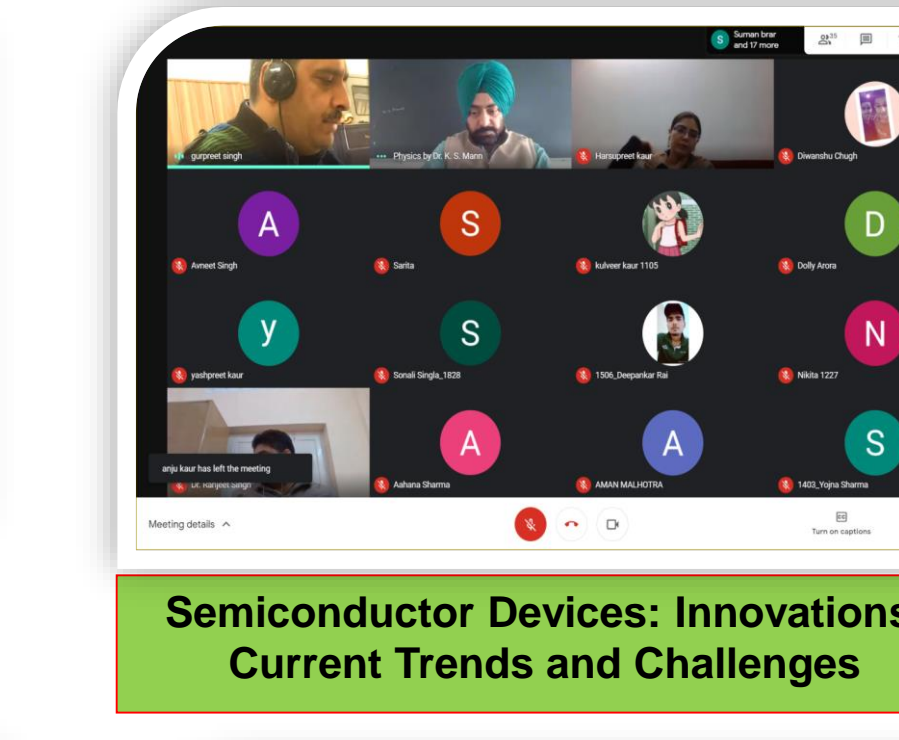
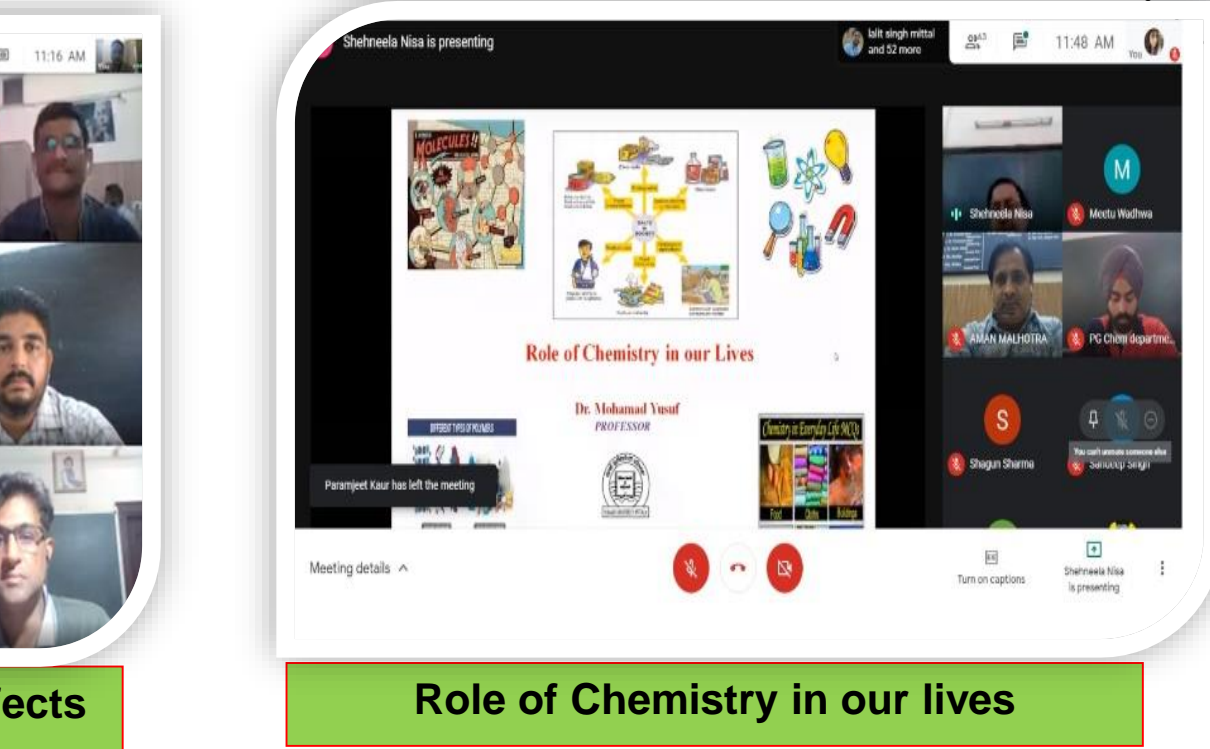
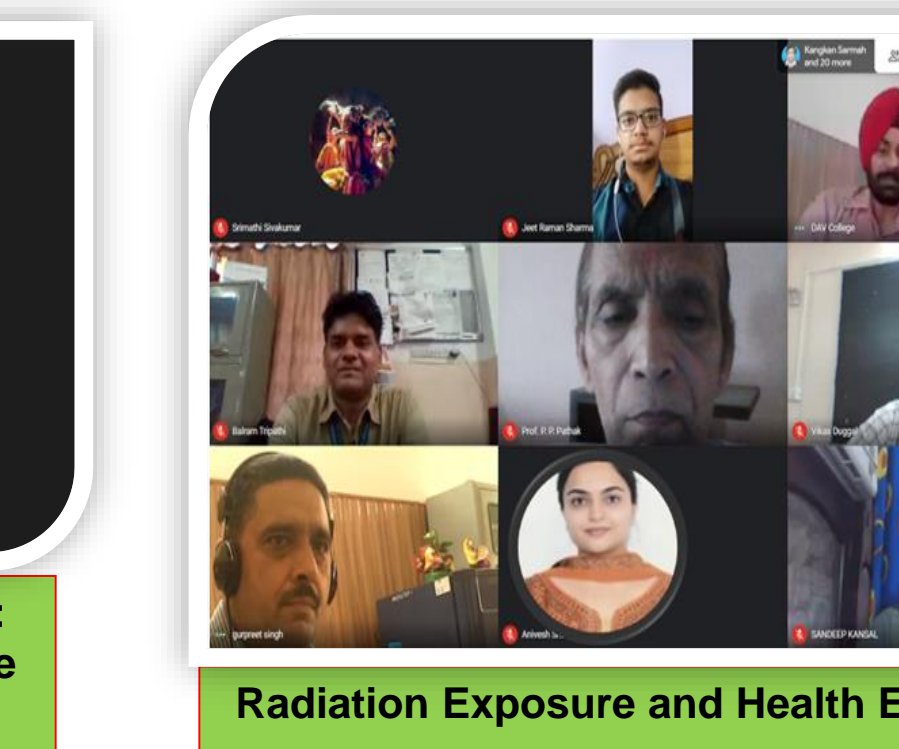
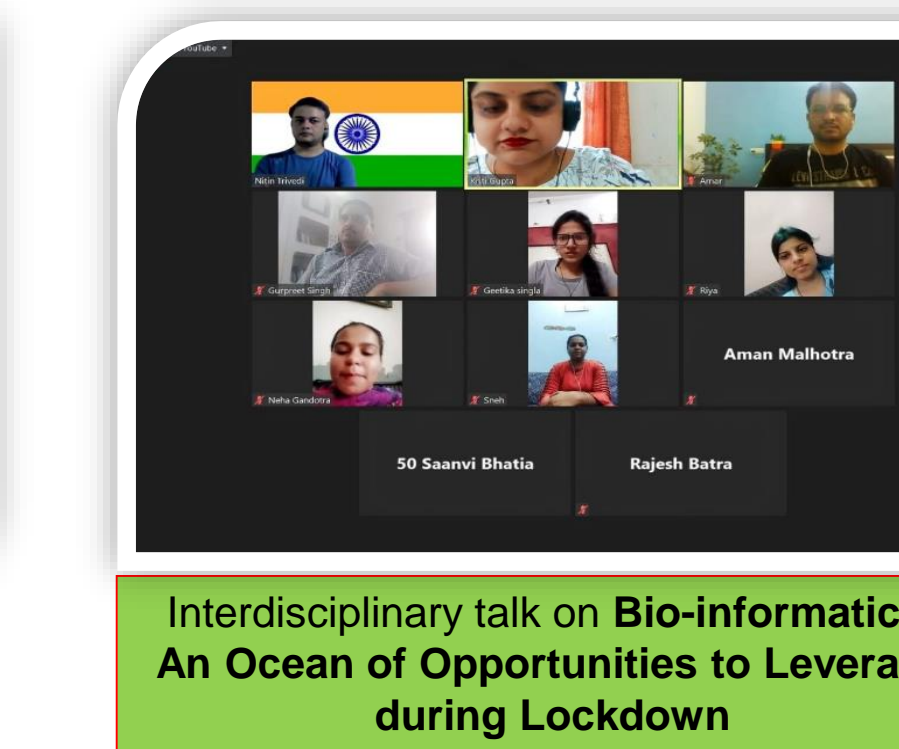
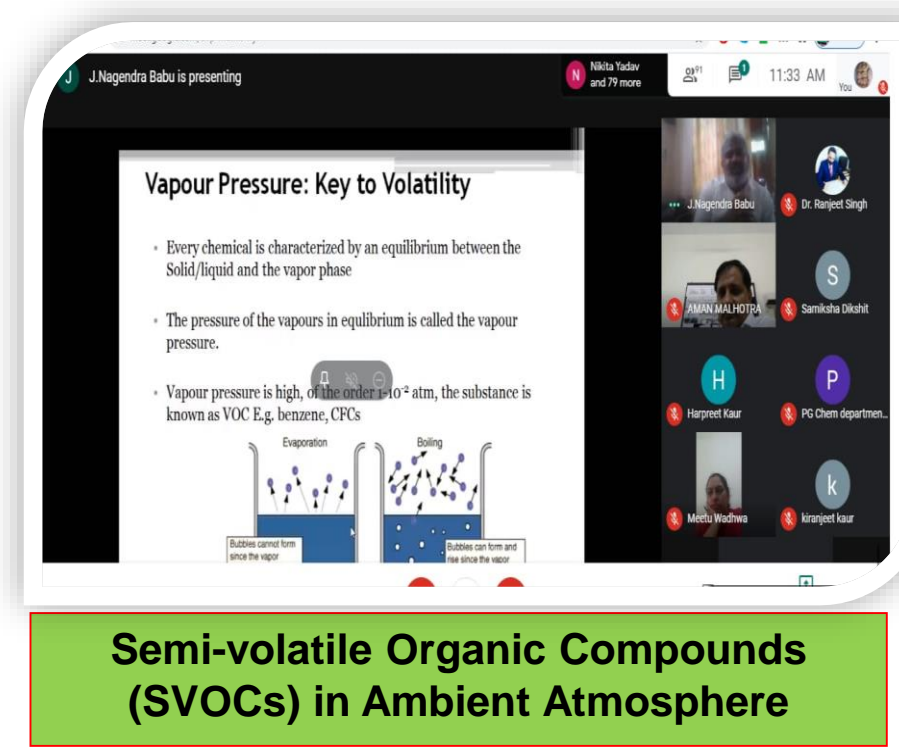
Interdisciplinary/Interdepartmental Activities:

Sr. No.	Name of the Activity	Date
1	National Virtual Poster making Contest Topic: Indian Nuclear and Space Programme (Online) (Beneficiaries: 35)	15/10/2020
2	Quiz for School Students (Beneficiaries: 35)	05/02/2021
3	Knowledge Quest-2021 (Offline) (Beneficiaries: 35)	10/03/2021



Seminars/Webinars/Journal's Club Activities/Training Programmes/Workshops:

#	Name of Activity	Resource Person
Seminars/Webinars		
1	Semi-volatile Organic Compounds (SVOCs) in Ambient Atmosphere (24/09/2020) (Beneficiaries: 113)	Dr. J. Nagendra Babu, Assistant Professor, Centre for Chemical Science, School of Basic and Applied Sciences, Central University of Punjab, Bathinda
2	Bio-informatics: An Ocean of Opportunities to Leverage during Lockdown (26/09/2020) (Beneficiaries: 176)	Dr. Felix Bast, Associate Professor, Central University of Punjab, Bathinda
3	Radiation Exposure and Health Effects (10/10/2020) (Beneficiaries: 121)	Prof. (Dr.) Sandeep Kansal, Department of Physics, MRS Punjab Technical University, Bathinda
4	Role of Chemistry in our lives (29/10/2020) (Beneficiaries: 101)	Dr. Mohamad Yusuf, Associate Professor, Department of Chemistry, Panjab University, Patiala.
5	Enzymes-Coenzymes and their role in biological reaction (07/11/2020) (Beneficiaries: 73)	Dr. Aman Bhatta, Assistant Professor, Department of Chemistry, Panjab University, Chandigarh.
6	Semiconductor Devices: Innovations, Current Trends and Challenges (02/12/2020) (Beneficiaries: 52)	Dr. Harsupreet Kaur, Assistant Professor, Department of electronic science, University of Delhi
7	What to do after B.Sc.? Opportunities in Higher Education and Foreign Scholarships (24/02/2021) (Beneficiaries: 50)	Dr. Felix Bast, Associate Professor, Central University of Punjab, Bathinda
8	Interactive talk on Surface interactions from molecules to material (26/02/2021) (Beneficiaries: 102)	Dr. J. Nagendra Babu, Assistant Professor, Centre for Chemical Science, School of Basic and Applied Sciences, Central University of Punjab, Bathinda
9	Interdisciplinary webinar on Scholarships for pursuing higher studies in Sciences (27/03/2021) (Beneficiaries: 35)	Dr. Sandeep Kansal, Professor, Department of Physics, MRS Punjab Technical University, Bathinda, Punjab
Journal's Club Activities		
1	Introduction to Research Journals (23/01/2021) (Beneficiaries: 63)	Dr. Sushil Kumar, Associate Professor, Department of Physics, Chitkara University, Chandigarh
2	Introduction to Research Tools (13/02/2021) (Beneficiaries: 182)	Dr. Rudra Rameshwar, T.I.E.T. Patiala, Punjab
3	Classification of Nanoparticles (03/03/2021) (Beneficiaries: 35)	Ms Meetu S. Wadhwa, DAV College Bathinda
4	Parameters to analyze soil quality for agriculture (03/03/2021) (Beneficiaries: 35)	Dr. Parveen Bala, DAV College Bathinda
5	Green Solvent in Synthesis (27/1/2021) (Beneficiaries: 28)	Mr. Aman Malhotra, DAV College Bathinda
6	Vaccination against COVID-19 (27/1/2021) (Beneficiaries: 28)	Mr. Aman Malhotra, DAV College Bathinda
7	Chemotherapy for cancer treatment (17/02/2021) (Beneficiaries: 36)	Dr. Neha Jindal, DAV College Bathinda
8	Application of NMR Spectroscopy (17/02/2021) (Beneficiaries: 36)	Dr. Paramjeet Kaur, DAV College Bathinda
Training Programmes/Workshops		
1	Teaching with Virtual Labs and Enhancing Computational Skills using Spreadsheets (21/09/2020 to 22/09/2020) (Beneficiaries: 82)	Dr. P.K. Ahluwalia, Professor (Retd.), Himachal Pradesh University, Shimla & Dr. Sapna Sharma, Associate Professor, St. Bede's College, Shimla
2	Constructivism and Learn by doing Practicals for UG Students (03/12/2020) (Beneficiaries: 60)	Dr. Sarmistha Sahu, Coordinator AMMANNI-IAPT Anveshika, Associate Professor (Retd.), Department of Physics, MLAC, Bengaluru, Karnataka
3	Workshop on Chemsketch (21/01/2021) (Beneficiaries: 52)	Dr. Bhupinder Kaur Department of Chemistry, Akal Degree College, Mastuana Sahib & Dr. Paramjeet Kaur, Department of Chemistry, DAV College Bathinda
4	One Week Online Interdepartmental Workshop on MS-Excel/Spreadsheet as a tool for Enhancing Mathematical and Computational Skills (27/01/2021 to 01/02/2021) (Beneficiaries: 50)	Dr. P.K. Ahluwalia, Professor (Retd.), Himachal Pradesh University, Shimla Dr. Sapna Sharma, Associate Professor, St. Bede's College, Shimla Dr. Sarmistha Sahu, Coordinator AMMANNI-IAPT Anveshika, Associate Professor (Retd.), Department of Physics, MLAC, Bengaluru, Karnataka
5	Three Days Workshop/Training on Electronics Projects (22/02/2021 to 24/02/2021) (Beneficiaries: 35)	Mr. Sukhvinder Singh, Coordinator, NIERT, Patiala, Punjab
6	Training for Laboratory Staff on Maintenance of Equipment (23/03/2021) (Beneficiaries: 08)	Mr. Sukhvinder Singh, Coordinator, NIERT, Patiala, Punjab



PHYSICS:

1	Physics at kitchen (SoP)
2	Calculation of 'g' with the help of a hex-nut (SoP)
3	Investigation of Mobile Signal Strength At Home (SoP)
4	Survey: SAR of Mobile Phone Sets For Human Body (SoP)
5	Determination of Young's Modulus (Y) of Steel ruler at home (SoP)
6	Feynman's Lecture review
7	How Search, Download, Export Citation Of Research Articles Using Keywords (SoP)
8	Summary of Webinar On Introduction To Research Journals
9	Data analysis and graph plotting using MS-Excel
10	Testing various electronic components
11	Study of I/O voltage of Power supply using DMM
12	Soldering of electronic circuits

CHEMISTRY:

1	Acquaintance with safety measures in the laboratory and Poster Making
2	Introduction to Titrations with onscreen titrations through Royal Society of Chemistry
3	Preparation of Acetanilide by Conventional/ Green Methods (research based)
4	Re-crystallization of Sugar
5	Preparation of soap sample & compare the foaming capacity and cleansing effect of soap samples.
6	To prepare a sample of furniture polish, or to prepare the sample of liquid shampoo.
7	Preparation of Soya bean milk and compare with natural milk with respect to curd formation.
8	Preparation of electrolytes of different concentrations and note down their conductance
9	Determine the strength of HCl and CH ₃ COOH by titrating it against standard NaOH
10	Prepare and measure the pH of Acetate buffer and Carbonate buffer

Major equipment procured under DBT Scheme:

Quincke's Method

B-H Curve Apparatus

He-Ne Laser

GM Counter

Innovation Hub: 25 Demonstrations