## Report on (Seminar on International Year of Glass: Recent Trends in Glass Research)

| Title of the Event                            | Seminar on International Year of Glass: Recent<br>Trends in Glass Research  |
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| Date and Time                                 | 24 <sup>th</sup> September 2022 from 9:00 am to 5:30 pm   |
| Mode  | Offline   |
| School/Directorate                            | School of Physical and Applied Sciences (SPAS)  |
| Collaborating Agency                          | Indian Association of Physics Teachers Goa Regional<br>Council (IAPT-GOA RC)  |
| Participants                                  | University, College and Higher Secondary School<br>Teachers. Phd Scholars and B.Sc and M.Sc Students  |
| Resource Person                               | <ol> <li>Prof. Erwin Desa, former Dean Natural Sciences, Goa<br/>University,</li> <li>Prof. Atul Khanna, department of Physics, Guru Nanak<br/>Dev University Amritsar, Punjab,</li> <li>Dr. Saurabh Wajhal, Scientist Bhabha Atomic Research<br/>Centre, Mumbai</li> <li>Prof. Kaustubh Priolkar, Dean SPAS Goa University.</li> </ol>   |
| Faculty attended                              | 35  |
| Student attended                              | 56  |
| No. of external<br>participants               |   |
| The objective/ description<br>of the activity | <b>Objective:</b> - The seminar was organized to commemorate<br>International Year of Glass. The aim of this seminar was to<br>make students and teachers aware about the advancements in<br>the field of Glass research and their importance in our life.<br><b>Description:</b> - <b>Prof. Desa</b> , elucidated the five periods of Glass<br>manufacturing from 1700 BC to the present day and various<br>glass making techniques used during this era. He enumerated<br>many examples of naturally occurring glasses, and explained<br>their formation in nature and study of their structure using<br>diffraction pattern. |

|                                     | <ul> <li>Prof Khanna explained glass by comparing it with structure of liquids and rigidity of solids. Various properties of oxide-based borosilicate glasses which can be further tailored by its composition and preparation condition and their numerous applications were discussed.</li> <li>Dr Sourabh Wajhal explained how the nuclear waste which is generated in the nuclear reactor and the importance of its proper disposal. The recent advances and applications of glasses in the radioactive waste immobilization and physical and chemical properties of such glasses were discussed.</li> <li>Prof. Kaustubh Priolkar, in his talk explained what are strain glasses, martensitic transformation of compounds and the dyamically disordered lattice strains which arise from doping the material with additional point defect.</li> <li>Post lunch a poster competition was organized for B.Sc and M.Sc. students on the topics: <ol> <li>History and Recent development in Glass</li> <li>Glass for growing sustainable cities and communities</li> </ol> </li> </ul> |
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|                                     | of the poster competition in the valedictory function.  |
| Benefit/Key outcome of<br>the event | The talks highlighted the evolution of glass from 1700 BC to<br>the present day and how glass can aid the development of<br>sustainable society, the recent scientific research in nuclear<br>waste glasses. This event will help the teachers and the<br>students to radiate the light of glass knowledge to our society.<br>The participants were appraised about the importance of glass<br>in the present covid vaccine package (glass vials) as the glass<br>being chemically inert, it protects the drug from contamination<br>with other chemicals, moisture and oxygen.   |

Dr. Reshma Raut Dessai Assistant Professor SPAS Goa University



1 Inouguration by Chief guest Prof. Kaustubh Priolkar



Address by Chief guest



Talk on Glassy state by Prof. Erwin Desa



Talk by Prof. Atul Khanna



Delegates in the seminar



Poster competition Judge 1 questioning participants



Poster competition judgment by judge 2



Presentation by 3rd speaker Dr. Saurabh Wajhal



Talk by Prof. Kaustubh Priolkar on strain glasses



First prize Presentation



Third prize presentation