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| 1.  | Title of the course   | Inorganic Chemistry Laboratory |
| 2.  | Course number   | CY512P                         |
| 3.  | Structure of credits  | 0-0-6-4                        |
| 4.  | Offered to  | PG                             |
| 5.  | New course/modification to  | Modification To CY5292/10      |
| 6.  | To be offered by  | Department of Chemistry        |
| 7.  | To take effect from   | July 2022                      |
| 8.  | Prerequisite  | Nil                            |
| 9.  | <b>Course Objective(s):</b> To provide a hands on experience on several synthetic and structure identification techniques and to provide an exposure to different spectroscopic and electrochemical equipment used in inorganic chemistry.  |                                |
| 10. | <b>Course Content:</b> Synthesis of a number of compounds having different composition, colour, conductivity, electronic and magnetic properties; Estimation of the components by conventional analytical methods; Estimation of the metal ion by spectroscopy methods; Characterization of the compounds by different spectral methods, such as, FTIR, UV-Vis absorption, NMR and ESIMS; Establishing magnetic related parameters by measuring magnetic susceptibility and also by measuring the EPR spectra; Interpretation followed by identification of the compounds using data combined from all these. |                                |
| 11. | <b>Textbook(s):</b><br>1. Adams D M, and Raynor J B, <i>Advanced Practical Inorganic Chemistry</i> , John Wiley & Sons (1967).<br>2. Pass G, and Sutcliffe H, <i>Practical Inorganic Chemistry</i> , Chapman & Hall (1974).   |                                |
| 12. | <b>Reference(s):</b><br>1. Drago R S, <i>Physical Methods for Chemists</i> , Saunders (1992).<br>2. Vogel I, <i>Text Book of Quantitative Inorganic Analysis</i> , ELBS Publications (1978).  |                                |