Department of Metallurgy and Materials Engineering
COEP Technological University (COEP Tech.), Pune
(A Unitary Public University of Government of Maharashtra)
Shivajinagar Pune411005

SEM Imaging and EDS Requisition Form
(For COEP-Students)

Field Emission Scanning Electron Microscopy (FE-SEM) (Make -ZEISS, Model SIGMA IV)

	Test	No of Samples	What exactly you need to analyze by SEM Testing? Please mention clearly. (This is to check student's understanding of SEM and EDS system in relation to their project work, write accordingly)
1	**SEM Imaging:**		
2	**Energy Dispersive Spectroscopy (EDS)**		

Requirements: Magnifications **:**_____X/_____X/_____X. **Imaging:** Secondary Electron / Back-Scattered / In-Lens

EDS Scan Details (if Required): Point Scan- _____ / Line Scan- _____ / Area Scan- _____ / Elemental Mapping-_____

Sample Details: Bulk / Powder. _____**Material Grade/ Composition**: _____

Details of Heat Treatment/ Processing : _____

Instructions:

- **Sample Dimensions for SEM Imaging:** Round or Square Solid Specimen with maximum of 15 x 15 x 15 mm size. In case of Powder Specimen: Maximum of 1 gram Powder. Samples should not be potentially hazardous, should be free of oil/lubricant/wax/dust, non-volatile and should not decompose/ evaporate in vacuum (10^{-5} Pa).
- **Magnetic and wet biological samples are strictly prohibited**. Ensure that the sample is non-Magnetic, and oven dried in case it is a biological sample.
- **Mandatory conditions for all metallic / ceramic samples:** Optical Microscopy Images of the samples must be produced to confirm proper preparation of specimen to avoid wastage of slot timing. In case Slot is wasted because of bad quality of samples or absence of concerned student, student will be allotted slot either after 1 week or as per availability slot schedule and No urgency will be entertained for such defaulters.
- Some groundwork (preliminary study) by students is required to be made on what exactly they need to analyze as there would be calculated time assigned. Students are advised to read research papers and Books to find relevant details to avoid testing of unnecessary samples and loss of SEM operation Time.

Undertaking by student(s)/JRF/SRF/ Project Staff: I/We have read all the above instructions carefully. Information provided by me in this form is true to my knowledge and I take responsibility for any damage or malfunctioning of the equipment that may result from the wrong information provided by me in this form and/or because of submission of inappropriate/wrong samples.

Students Names (and MIS Nos) of all students in project group:

1._____ Sign of Student-1 :

2._____ Name of Student-1 :_____

3._____ Mobile Number-1 : :_____

4._____ Mobile Number-2 : :_____

Information to be filled by Project Guide (Faculty)

I certify that _____ number of samples being submitted through this requisition requires SEM analysis as Optical Microscopy is not sufficient for the analysis/purpose mentioned by the students in above table. These students are working under me for MICRO / MINI / B.Tech. / M.Tech/ Ph.D /_____Project. This is academic project work and is in collaboration with _____ (if any). These samples are not part of any ongoing or upcoming consultancy work.

Sign with date:
Name of Faculty (Project Guide)

* Please Strike out whichever is not applicable.

Department:

Stamp and Sign of Concerned Dept.HOD	SEM Lab-In charge	HOD (Metallurgy and Materials. Engineering.)	Slot Allotted: (Date & Time) SEM Operator