



- ❖ In the paper, developments of alignment & calibration scheme for the ITER CXRS Pedestal diagnostic system, discussed in the suitable transmission system, this includes the ZEMAX ray-tracing tool, used for optimum light transmission path analysis including various optical components.
- ❖ The retroreflector performance is studied using the ZEMAX for vertically and horizontally grooved.
- ❖ Experiment performed to ensure the feasibility and achieving the performance as predicted by ZEMAX for retroreflector, and the flat mirror
- ❖ The effect of optics displacement on the system performance is also studied using ZEMAX. This helps to assess the required alignment for efficient coupling in the image plane. Tolerance analysis is performed to identify the most affected component for optical transmission in the interspace support structure to ensure the required accuracy of measurements.