In nuclear and particle physics experiments, particle accelerators are essential tools for investigating the internal structure of matter. Accurate beam monitoring is crucial for beam control and maximizing beam utilization efficiency. Synchrotron radiation emitted from an electron beam passing through a bending magnet serves as an excellent probe for non-destructive beam profile imaging.

At electron accelerator facilities such as JLab(US) and MAMI(Germany), our nuclear phyiscs experiment research group has been developing beam diagnostics and measurement monitors. These monitors can improve the precision of our nuclear physics experiment.

In this talk, I will present the current status of the beam energy spread monitor developed at JLab, as well as future plans for applying this technology to hypernuclear experiments.