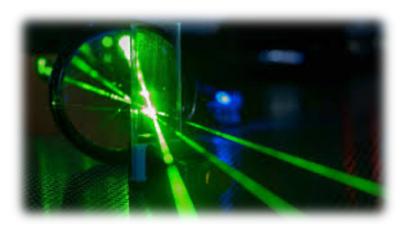




SEMINARS ON TECHNOLOGICAL ADVANCES AND INNOVATION

THE EPIC APPROACH TO
SCIENTIFIC CONTROL:
ROBUST SYSTEMS FOR
MODERN RESEARCH



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Behind every world-class scientific facility lies an equally powerful control system. This talk presents the perspective of the Extreme Photonics Innovation Centre (EPIC) on designing and operating modern control systems, with the EPICS framework as the backbone. We will explore the end-to-end workflow of control system development for large scientific facilities, from architecture to deployment. Beyond software, the discussion will cover critical safety and reliability components, including machine protection systems and data management strategies tailored for high-availability operations. Finally, we will demonstrate how automation and system integration empower scientists and engineers to orchestrate increasingly complex experiments with confidence and precision.

