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LEVERAGING DESIGN THINKING AND SYSTEMS THINKING APPROACH IN PHYSICS EDUCATION RESEARCH

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Design thinking and systems thinking approaches have become critical to creativity and innovation to address the engineering and technology challenges of the 21st century. We build on existing research on design thinking and systems thinking and discuss how physics education research practitioners can leverage these methodologies to improve student learning and experience. Most importantly, we investigate how these approaches could influence the behavior of students and instructors to develop higher-order thinking skills to understand and address complex problems in physics education research leading to improved learner performance, experience, and course design at higher education institutions.

Apply to be considered for a student ; award (Yes / No)?

YES

Level for award;(Hons, MSc, PhD, N/A)?

MSc

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