

## **Generalist Scholarship and Engineering Education**

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Generalist scholarship may be thought of as an approach to research in which simple models and methods are intentionally employed in order to ascertain trends, correlations, and high-level concepts that are difficult to discern when relying solely on more specialized methods. In the twenty-first century, however, the advent of sophisticated software and continually increasing computational power have generally led engineering—practice, research, and education alike—away from broad based analysis and towards more and more specialized techniques. And though specialized research can deliver a high degree of detail and quantitative accuracy in modeling systems and processes, physical insights and high-level connections are increasingly in peril of going overlooked. In this talk, we explore the tremendous opportunities that exist for generalist scholarship to complement specialist research with a particular emphasis on the thermal-fluid sciences. Furthermore, given that the tools that characterize the methods of generalist scholarship are acquired early in a technical education, we will examine the potential to enhance engineering education through research at the generalist level, as well as to fill the pipeline of future engineering scholars.