Abstract

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In this work we explore how the idea of introducing sustainability in the engineering curriculum raises questions with respect to the boundaries of engineering. In our quest to understand sustainability’s place in engineering we also investigate broader debates surrounding the question of what engineers ought to be doing. We present results from a grounded theory analysis of 42 articles out of a database of over 150 from publications such as the Journal of Engineering Education, International Journal of Engineering Education, European Journal of Engineering Education, International Journal of Sustainability in Higher Education and others. Three major themes including; sustainability as ammunition for the future engineer, (in) disciplined sustainability and sustainability as engineering conscience, emerge encompassing seven smaller themes. This presentation is an extension of Ranjani Rao’s 590 final paper that explored the connections between sustainable engineering and eco-feminist philosophy. Co-authors: Ranjani Rao, Stephen Hoffmann, Alice Pawley.This work is supported by NSF-IEECI #0935066

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Ranjani Rao is a doctoral student in Organizational Communication in the Department of Communication at Purdue. She earned her masters in Media, Technology and Society from the same department in 2008. Prior to joining Purdue, Ranjani worked as a journalist with Indo-Asian News Service in New Delhi, India after completing her BA (Honours) in Economics from Delhi University and Post Graduate Diploma in Journalism from the Indian Institute of Mass Communication, New Delhi.

As a graduate research assistant on the Assessing Sustainability Knowledge (ASK) project, Ranjaniis engaged in helping develop a framework to assess sustainability knowledge in engineering undergraduate students, mapped on to expert views and literature that can help engineering faculty members identify and structure essential sustainability-related content and develop methods to bring these concepts organically into courses across the curriculum.

Ranjani’s research explorations in communication have included media and family communication, work-family dynamics and qualitative and feminist research methods in engineering contexts. Her master’s thesis looked at media coverage of child abuse and neglect in the context of the Greater Lafayette Journal and Courier’s coverage of the 2005 Aiyana Gauvin case. An excerpt of her thesis work was presented at the 4th Annual Stop Child Abuse Summit in Lafayette, IN in April 2009.

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