

Transforming institutional practices through interdisciplinary approaches to problem solving in STEM

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Montgomery College

Germantown Campus

Location: HT 216

Abstract: In this session, the participants will have the opportunity to learn about successful practices including evidence based teaching in STEM (Science, Technology, Engineering and Mathematics), Active learning approaches for enhanced student engagement, Interdisciplinary approaches in undergraduate research, Design thinking for innovation and Global problem solving. The talk will actively engage the participants through brainstorming activities that will help them to learn about content and competencies needed to make innovations in education that will help transform institutional practices in the 21st century. The talk will also showcase opportunities for both undergraduate students and faculty to engage in STEM research and training.

Biography: Dr. Padmanabhan (**Padhu**) Seshaiyer is currently serving as a program director at the National Science Foundation. He is a tenured Professor of Mathematical Sciences at George Mason University and serves as the Director of the STEM Accelerator Program in the College of Science as well as the Director of COMPLETE (Center for Outreach in Mathematics Professional Learning and Educational Technology) at George Mason University in Fairfax, Virginia. His research interests are in the broad areas of computational mathematics, scientific computing, computational biomechanics and STEM education. During the last decade, Dr. Seshaiyer initiated and directed a variety of educational programs including graduate and undergraduate research, K-12 outreach, teacher professional development, and enrichment programs to foster the interest of students and teachers in STEM at all levels. Padhu obtained a B.E (Hons) in Electrical and Electronics Engineering and M.Sc.(Hons) in Mathematics from India and a Ph.D. in Applied Mathematics from the University of Maryland, Baltimore County. He serves on numerous national and international boards including the US National Academy of Sciences Commission on Mathematics Instruction and the Chair of the SIAM (Society for Industrial and Applied Mathematics) Diversity Advisory Committee. He lives in Chantilly with her wife and two daughters.