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IEEE Miami Section Seminar Announcement

"Advanced Package Thermal Modeling for Upcoming Multiphysics Digital Twins"

Thursday, September 26th, 2024 | 11:00 AM to 12:15 PM EST

<u>Location</u>: EC 3930, 10555 W Flagler St, Miami, FL 33174
<u>Zoom</u> - Meeting ID: 850 5643 1513| Passcode: Tjq293

**Dr. Srikanth Rangarajan,
School of System Science and Industrial Engineering,
Binghamton University**

<u>**Abstract:**</u> This talk will explore the cutting-edge advancements in thermal modeling using AI within the framework of upcoming Multiphysics digital twins. Thermal modeling poses a significant challenge owing to the complexities posed by the coupled non linear equations in multiple scales. The presentation will highlight the synergistic relationship between thermal dynamics and other physical phenomena, showcasing how a comprehensive understanding of thermal behavior can enhance the predictive capabilities of digital twins. Additionally, the talk will provide examples from case studies involving phase change thermal modeling using AI. Attendees will gain valuable insights into the role of advanced thermal modeling in shaping the future of Multiphysics digital twins and its wide-ranging impact.

<u>**Speaker Bio:**</u> Srikanth Rangarajan joined the School of System Science and Industrial Engineering in Fall 2024. He received his M.S & Ph.D. in Mechanical Engineering from the Indian Institute of Technology Madras 2017. He obtained his Bachelor in Engineering in 2011 from Anna University Chennai. His research interests include Energy Storage management systems, electronic packaging, Digital twinning for electronics and batteries, Thermal energy storage, Thermal Management of electronics, and Data center cooling.

Research Interests
· Thermal management, optimization, Digital Twinning and sustainability of electronic systems
· Advanced packaging and heterogeneous integration of electronic systems
· Data Center cooling
· Digital twinning and optimization of battery systems
· Thermal Energy Storage: Design and optimization